ESSENTIAL SERVICES COMMISSION

TAXI FARE REVIEW 2013-14

FINAL REPORT

MARCH 2014

An appropriate citation for this paper is:

Essential Services Commission 2014, *Taxi fare review 2013-14 — Final report*, March.

GLOSSARY

Airport taxi parking fee	A fee paid by passengers for taxis hired from Melbourne Airport ranks.
The amended Transport Act	The *Transport (Compliance and Miscellaneous) Act 1983* as to be amended by the *Transport Legislation Amendment (Foundation Taxi and Hire Car Reforms) Act 2013*. Note: Although the *Transport Legislation Amendment (Foundation Taxi and Hire Car Reforms) Act 2013* has received Royal Assent, the provisions relating to the regulation of maximum taxi fares have not been proclaimed. These amendments will come into force by 30 June 2014 at the latest.
Assignment	A commercial arrangement by which a licence holder leases the right to operate a taxi to an operator.
Assignment fee	The fee charged by a licence holder to a taxi operator for the lease of their taxi licence.
Authorised Taxi Organisation (ATO)	A provider of booking and dispatch services, who acts as an intermediary between taxi drivers and customers (previously known as a network service provider). Under the reforms, taxi operators are no longer required to affiliate with a taxi network. They are free to join one or more ATOs or operate independently.

Bailee	A person who rents a taxi from an operator and delivers passenger trips as a driver. Bailees negotiate remuneration arrangements with the operator.
Bailment agreement	A commercial contract between an operator and bailee (driver). It sets out the terms and conditions for which the bailee is to deliver the taxi service on the operator's behalf, including how farebox revenue is distributed between the bailee and operator.
Commission	Essential Services Commission — Victoria's independent economic regulator of certain prescribed services as determined by Government. The Commission currently advises the Minister for Public Transport on taxi fares, but under the reforms being implemented will set maximum fares.
Country zone	The taxi zone comprised of all areas not included in the metropolitan, outer suburban and urban zones. Generally country taxis are licensed to operate within five to eight kilometres of the local post office.
Driver agreement	A mandatory agreement being introduced under the Government's industry reforms, which will set minimum terms, conditions and payments for drivers from 1 July 2014. Drivers are to receive a minimum of 55 per cent of the farebox revenue.
Elasticity of demand	A measure of the responsiveness of demand to a change in price, i.e. percentage change in quantity demanded for a given percentage change in price.
Equity beta	Measures the systematic risk of a company (business risk and financial risk) relative to the market as a whole.
Fare	The price of a taxi trip, i.e. the amount paid by passenger(s).

Fare structure	Refers to the system by which fare components apply to calculate the fare of a trip. For example, individual fare components include the flagfall, distance rate, waiting time rate and booking fee.
Farebox revenue	The total revenue from taxi trips.
goCatch, Ingogo	Taxi booking smartphone applications which directly connect the passenger to taxi drivers, therefore bypassing the booking services of existing NSPs. Both applications allow the passenger to locate a nearby taxi, book a taxi, obtain a fare estimate, track the driver en route, pay for the trip and rate the driver.
Hail market	In this market, passengers hail or flag down taxis from the side of the road.
High occupancy vehicle (HOV)	A class of taxi which can carry up to 11 passengers. Higher taxi fares apply to HOVs if carrying at least five passengers or if the hirer requests a HOV. The higher rate does not apply when the hirer is a wheelchair passenger.
Industry return	The return required given the level of risk associated with an industry. The Commission has included an industry return when determining the costs of providing taxi services.
Licence	The right to provide a taxi service in Victoria is held in the issue of a licence (one vehicle per licence). Each licence on issue specifies the conditions under which the taxi service is to be provided.
Licence holder	A person who acquires the right to provide a taxi service, as specified in the issue of a licence.
Listed business	Business whose shares are listed on a stock exchange for public trading.

Metered fare	The taxi fare for a journey as displayed on a taxi's meter. The fare components (e.g. flagfall, distance rate, etc) are determined by the Minister for Public Transport.
Metropolitan zone	The taxi zone comprised of metropolitan Melbourne.
Multiple hire	Occurs when unacquainted people agree to share a taxi from a common starting point to separate destinations. Under current fares, each hirer pays no more than 75 per cent of the metered fare at their drop-off point.
Multi Purpose Taxi Program (MPTP)	A government program that subsidises the taxi fare of people with severe and permanent disabilities. MPTP members receive a 50 per cent discount on their taxi fare up to a maximum of $60 per trip. There is an annual limit of $2180. Some MPTP members, for example those using wheelchairs, are exempt from the annual cap.
Network service provider (NSP)	A provider of booking and dispatch services, who acts as an intermediary between taxi drivers and customers. NSPs will be known as Authorised Taxi Organisations under the reforms.
Occupancy rate	The percentage of time the available fleet on the road is occupied by paying passengers.
Operator	A person who purchases, maintains and operates a taxi. The operator may engage bailee drivers and may also drive the taxi themselves.
Outer Suburban zone	The taxi zone comprised of Frankston and Dandenong.

Pre-booked only taxi (PBO)	PBOs (hire cars) are commercial passenger vehicles that provide a premium, on demand, point-to-point transport service. PBOs must be pre-booked by the passenger — they cannot be hailed on the street or at a rank. The fare for a PBO service must be agreed between the driver and passenger prior to the commencement of the journey.
Pre-booked market	In this market, passengers book a taxi with an NSP or independent booking provider (e.g. goCatch, Ingogo). The booking can be made by telephone, the internet or smartphone application for immediate travel (a 'ready-to-ride' pre-booked trip) or a specified time in the future.
Principles	The fare setting principles that guide us in determining maximum fares. The principles assist in the objectivity of the fare setting process and provide a framework that will guide the Commission in achieving its legislative objectives.
Rank market	In this market, passengers catch a taxi from a designated taxi rank. Ranks are clearly signposted throughout metropolitan Melbourne, major regional cities and country towns.
Ready-to-ride market	Refers to a pre-booked taxi trip where the next available taxi is requested.
Revenue sharing	An arrangement between an operator and bailee (driver), in which the revenue received from the operation of a taxi is distributed on a pre-determined basis (such as a 50:50 split). Under such an arrangement, the operator is typically responsible for all expenses relating to the operation of the taxi, including fuel, insurance and repairs and maintenance.

Taxi Industry Inquiry (TII)	Established by the Government in March 2011 to investigate the functioning of the Victorian taxi and hire car market and propose recommendations for reform. The TII provided its final report to Government in September 2012, and is available from www.taxiindustryinquiry.vic.gov.au.
Taxi zone	Taxi licences are attached to certain geographic areas (zones) in Victoria, limiting the area within which they can operate. A taxi cannot accept rank or hail work outside its zone, but can take pre-booked trips. Currently there are four taxi zones in Victoria — metropolitan, outer suburban, urban and country.
Terms of reference	The Minister for Public Transport issued terms of reference to the Commission on 2 February 2014 pursuant to section 186(4) of the *Transport (Compliance and Miscellaneous) Act 1983.* The terms of reference are at Appendix A.
Taxi Services Commission (TSC)	Responsible for regulation of the taxi and hire car industry. The TSC was established as the new industry regulator as part of the Taxi Industry Inquiry and took over from the Victorian Taxi Directorate on 1 July 2013.
Uber	Hire car booking smartphone application which directly connects the passenger to hire car drivers. The application allows the passenger to obtain fare estimates and compare rates for different vehicles, track the hire car en route, pay for the trip and rate the driver.
Urban zone	The taxi zone comprised of the cities of Geelong, Ballarat and Bendigo.
Victorian Taxi Association (VTA)	The primary taxi industry body of Victoria, representing industry participants including licence holders, operators and network service providers.

Victorian Taxi Directorate	Previously a division of the Department of Transport, Planning and Local Infrastructure responsible for the regulation of Victoria's taxi and hire car industry. From 1 July 2013, the Taxi Services Commission was established as the new regulator.
Wheelchair Accessible Taxi (WAT)	Taxis with WAT licences are designed to transport people in wheelchairs. WATS may also operate as high occupancy vehicles (HOVs) that can carry up to 11 passengers when not carrying people in wheelchairs.

ACRONYMS

ATDA	Australian Taxi Drivers Association
ATO	Authorised Taxi Organisation
HOV	High occupancy vehicle
MPTP	Multi Purpose Taxi Program
NSP	Network service provider
PBO	Pre-booked only taxi
TII	Taxi Industry Inquiry
TSC	Taxi Services Commission
VTA	Victorian Taxi Association
WAT	Wheelchair accessible taxi

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KEY MESSAGES

We have concluded our analysis and find that taxi fares must increase by an average of 12.5 per cent (with some variation between different tariffs).

As this review was conducted prior to finalisation of the new zoning arrangements, we have identified new fares based on the existing zone structure.

In the metropolitan and outer suburban zones, the current two-period fare structure will be replaced by three fare periods:

- a 'day' fare period (9am to 5pm)
- an 'overnight' fare period (5pm to 9am, excluding the 'peak' fare period)
- a 'peak' fare period (10pm to 4am on Friday and Saturday nights).

We have retained the existing tariff components, being flagfall, distance and waiting time rates.

We have increased the flagfall relative to the distance rate in all three fare periods in order to increase the attractiveness of short fares.

In the urban and country zones all flagfall, distance and waiting time rates will be increased by a flat 12.5 per cent uplift factor.

Booking fees will remain unchanged in all zones and the airport taxi parking fee will increase to $2.70.

The times at which holiday rates apply remain unchanged.

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KEY MESSAGES CONTINUED

The tariff 3 and 4 surcharge will be replaced by a flat $14 add on fee for High Occupancy Vehicles.

Our next fare review will be conducted before the end of 2015. We will be exploring opportunities for more sweeping reforms to the way in which fares are determined and structured.

INTRODUCTION

On 2 February 2014, the Minister for Public Transport issued us a terms of reference, under the *Transport (Compliance and Miscellaneous) Act 1983,* requesting we provide a final report on new taxi fares by the end of March 2014. Due to the short time available, we were not required to release a draft report.

This report outlines our findings on taxi fares in Victoria.

This review is the first fare review since 2008 and since the Taxi Industry Inquiry (TII) handed its report to the Victorian Government in 2012.[1] Under the amended Transport Act (once the amendments have been fully proclaimed), we will have an on-going role to review and determine taxis fares at least every two years from the date of the previous review. We expect to complete our next review of taxi fares before the end of 2015.

Over the last few months, we have held over 50 meetings with taxi operators, drivers, customer and industry groups, network service providers and meter suppliers. We are very thankful for the generosity these parties showed in sharing their experiences and knowledge with us. We also conducted a survey of operators and drivers to gain a better understanding of the underlying costs and challenges in providing taxi services. We are grateful to the 275 operators and 132 drivers who responded to the surveys. In

[1] The last taxi fare increase of 6.1 per cent took effect in December 2008.

addition, we issued a number of short discussion papers and thank all those who made submissions in response.

A major focus for us in this review has been to rethink our approach to fare setting so that it better reflects the market disciplines within which the Victorian taxi industry operates. Of course, many aspects of the reforms now being implemented seek to enhance the market-orientation of the industry. This includes: improving the scope for competition between taxi operators and networks as well as competition with other transport modes; harnessing better technology in taxi ordering and dispatch; creating opportunities for new and differentiated services; and promoting a greater focus on customer service. These reforms establish an environment in which providers of taxi services will have newfound opportunities to innovate, compete and to grow the overall market.

OUR APPROACH

We have taken a five step approach to determining our new taxi fares.

First, we have considered the terms of reference, and, in turn, the legislative objectives, in establishing taxi fare setting principles. These objectives and principles have guided our work program and the findings outlined in this report.

Second, we have collected trip data, via the Taxi Services Commission (TSC), from network service providers. We have supplemented this data with information about industry costs (and practices) which we have collected through our operator and driver surveys as well as through the use of industry benchmarking. We tested many of our findings and assumptions in direct discussions with operators and drivers.

Third, we have re-examined the approach used in setting fares and concluded that it fails to account adequately for the market discipline within which the taxi industry must operate — particularly, in light of the Government's reforms aimed at establishing a dynamic and more competitive environment. As a result, we have dispensed with the traditional 'cost stack' approach to setting fares involving operator and labour costs, assignment fees and an operator margin.

Fourth, we have sought to improve the structure of taxi fares in order to better match the supply of taxis with the varying patterns of customer demand at different times of

the day and week. Trip data representing actual market conditions demonstrates an existing imbalance between the supply of taxis and the demand for taxi trips. We have also taken some preliminary steps in better modelling the dynamic interaction between the supply and demand sides of the taxi market.

Fifth, we have given some thought to how taxi fares might be set in the future. We have been conscious of the Government's reform process, which has included a greater emphasis on competition rather than regulation, and the desire to give the industry greater control over fare setting (at least in the medium to longer term).

IMPLICATIONS OF A MORE MARKET-ORIENTED APPROACH TO FARE SETTING

In the past, taxi fare regulators have simply built up a 'cost stack' for a typical taxi provider and used this to guide any recommended fare increase. The cost stack has included: the operational costs of putting a vehicle on the road, assumptions about driver labour costs, an allowance for the cost of assigning (renting) a licence from a licence owner, and a presumed operator margin.

This approach has many shortcomings — particularly in light of the new regulatory environment with its greater emphasis on promoting a more competitive market. In market-oriented sectors it makes little sense to simply set taxi fares year-after-year based on a static model of service delivery and costs. As competition takes hold, it will alter the traditional patterns of industry service offerings, supply chain relationships, the use of capital and the manner in which customers interact with the industry. These altered commercial relationships need to be taken into account when setting fares, however, they are complex and will only ever be partially visible to a regulator (despite its information gathering powers).

The alternative, and ultimately preferred approach, is for the regulator to focus on market outcomes rather than the inner workings of the industry.

In this fare review, although we have necessarily considered industry costs when determining fares, we have also placed considerable emphasis on market outcomes by seeking to address observed imbalances between supply and demand at particular times and in particular places. When either taxi queues or passenger waiting times are

disproportionately long, or there is fare refusal, this signals that there is some level of market disequilibrium (or imbalance) that might be mitigated by changing the level or structure of fares.

In this fare review, we have sought to address these observed imbalances as best as possible within existing constraints, by restructuring fares. In future, these constraints will be fewer and the opportunities to place even more emphasis on market outcomes will be greater.

In the meantime, we have dispensed with the previous static way of thinking about driver costs, assignment fees and operator margins as well as the traditional cost-plus approach to fare setting. This way of thinking is no longer appropriate especially in light of reforms aimed at establishing a dynamic and more competitive environment.

While the starting point for setting fare levels was to update a baseline cost profile for taxi service providers, we adopted a very different approach to how we address driver costs and the way in which industry returns ought to be taken into account when setting fares. In other words, costs are no longer the sole focus on which the setting of fares relies.

Our new approach to costs and returns means there are three inputs into the fare setting model. These are: operational costs, driver share and industry returns. We also pay much greater attention to the role of fares in better matching the supply of and demand for taxi services.

OPERATIONAL COSTS

While under our new approach costs are no longer the sole determinant of fares, nonetheless, they are an important input. Since it has been nearly six years since we last undertook a review of taxi fares in Victoria, we undertook to gather and analyse information from the industry on its operational costs. These are the costs associated with placing a taxi vehicle on the road. It has been important for us to understand how the operational costs of providing taxi services have changed since our last review. As the TII stated:

The inquiry's view is that there is a clear need to establish a baseline of industry revenues and reasonably efficient costs. By 'reasonably efficient', the inquiry means costs that are actually achievable by many operators.[2]

Chapter 3 of this report outlines at length the work we have done in establishing this new baseline for 2014. Of course, different operators incur different costs depending on any number of factors. We have identified the range of costs within which, we believe, most operators will be operating their vehicles and we have chosen the mid-point of that range as reflecting the operational costs of a 'representative' operator. We have revisited the 2008 baseline to ensure that we are comparing like-with-like.

We find that between December 2008 and March 2014, operational costs for the representative taxi operator have increased by 11.0 per cent.

DRIVER SHARE

The majority of taxi fare regulators (including ourselves) have in the past considered driver costs as a cost to the operator. Such an approach treats the driver as a cost to the operator — *as* though the driver is an employee who is being paid a wage by the operator. In doing so, regulators have assumed that the required earnings of a driver are an input cost for operators in exactly the same way as, say, the cost of purchasing or leasing a vehicle.

This is an inappropriate and inaccurate way of characterising the relationship between operators and drivers, and indeed, the relationship between drivers and their passengers.

The correct characterisation is to place the driver (bailee) as the direct provider of taxi services to customers after having 'rented' (bailed) the vehicle from an operator under a commercial arrangement. In Victoria, the usual practice has been for the driver to pay the operator a share of the revenue earned as payment for supplying the asset (the taxi vehicle). In other places, different arrangements are practiced. For example, in New South Wales it is more common for drivers to pay operators a fixed 'pay in' amount. These arrangements differ in how they allocate risk (most notably, demand risk) between the driver and the operator.

[2] Taxi Industry Inquiry 2012, *Customers first — service, safety, choice, Draft report*, May, p. 466.

In this review and in all future reviews, our approach is to focus on operators' and drivers' share of farebox revenue rather than on treating drivers as a labour cost incurred by operators. From this review onwards, labour is treated as a share of revenue not a cost.

This is consistent with government policy to mandate the farebox revenue split. Our approach fully accounts for the 55:45 mandated revenue sharing arrangement between drivers and operators, respectively.

INDUSTRY RETURNS

In a market-oriented environment, investment capital is allocated according to the risk and expected returns from competing investments. There is no self-evident reason to view investment in the taxi industry any differently — and all the more so in light of the reforms implemented by the Victorian Government.

This is a vastly different conceptualisation of the industry from the one adopted in our previous reviews and as applied elsewhere by other regulators.

It means that when setting fares, no provision is made for assignment fees or operator margins. Alternatively stated, we are no longer treating assignment fees or operator margins as a cost item associated with the provision of taxi services.

Instead, from this review onwards, we include an allowance for an overall industry rate of return based on farebox revenue. This is a return that, as the fare regulator, we assume is required by the industry-as-a-whole in order to generate the necessary investment to maintain its financial viability. We have made no implicit or explicit assumptions about how the allowed return is shared between different industry participants (particularly: operators, drivers and licence owners). We do note, however, that this return also reflects the funds that are available for reinvestment in the industry as it adapts to operating in an increasingly competitive environment.

Whether these funds are reinvested or extracted, and how they are shared between the parties if they are indeed extracted, is of no concern to the fare regulator — nor should it be of any concern to the fare regulator.

By dispensing with the previous approach of treating assignment fees (and operator margins) as a cost item, we have broken once-and-for-all the nexus between fares and licence values (or assignment fees).

We have determined the appropriate rate of return for the taxi industry based on an assessment of the expected returns in a range of other sectors. Of course, no two industries are identical, but by looking at numerous other businesses, each of which shares at least some characteristics with the taxi industry, we were able to identify a range within which the taxi industry lies. Given the specific characteristics and circumstances of the taxi industry, we have settled on a benchmark rate of return at the upper end of this range for now, namely, 14.5 per cent of farebox revenue.

THE OVERALL FARE INCREASE

Based on our findings on operational costs, driver share and industry returns we have determined an overall fare increase of 12.5 per cent. There will be some variation around this average between different tariffs.

USING FARES TO BETTER MATCH SUPPLY AND DEMAND

The trip data collected from NSPs highlights various imbalances between the supply of and demand for taxi services at different times of the day and week. For example, in the early hours of weekday mornings, the data suggests that supply markedly outstrips demand. As a result, occupancy rates are very low. Conversely, demand heavily outstrips supply on Friday and Saturday nights resulting in long queues of passengers waiting for a taxi.

The TII made a number of observations about the role of fares in addressing some of these imbalances and our terms of reference (and the amended Transport Act) require us to have regard to these concerns as well as others such as: short trip refusals, an oversupply of taxis at the airport (particularly high occupancy vehicles).

As a result of our analysis of the data and our modelling of the impacts of any fare changes, we find that the current two-period fare structure of a base rate with a late night surcharge (of 20 per cent between 12am and 5am) does little to address the observed imbalances. Our analysis of the data, which is fully described in the report, finds that that the current two-period fare structure should be replaced with a new

three-period fare structure in response to the observed imbalances. The three new periods for the metropolitan and outer suburban zones are:

- a 'day' fare period (9am to 5pm)
- an 'overnight' fare period (5pm to 9am, excluding the 'peak' fare period) and
- a 'peak' fare period (10pm to 4am on Friday and Saturday nights).

We have begun developing an integrated model of the metropolitan taxi industry, using available trip and other data. The model captures the dynamics of the demand and supply side of the industry. While it is too early to rely on this model to determine the fare increase, we have used it to assess the outcomes associated with different fare structures. We will continue to develop this integrated model ahead of our next fare review.

OTHER MATTERS TO BE TAKEN INTO ACCOUNT

The terms of reference require that, when setting taxi fares, we must have regard to the TII's recommendations on short trip refusals, airport queuing, peak and off peak periods, High Occupancy Vehicles (HOVs) tariffs and the multiple hire tariff.

SHORT FARE REFUSALS

There is no detailed information on the extent and nature of short fare refusals. Based on the available data, it seems that the incidence of short fare refusals varies at different times and in different places. It also seems to vary with the practices adopted by different drivers (for example, numerous drivers reported that their business model involves collecting a large number of short fares).

Further, we have no information that indicates the likely response by either drivers or passengers to a major rebalancing of the general fare structure to address this concern in favour of short fares. This suggests a somewhat cautious approach is warranted. We have increased the flagfall relative to the distance rate accordingly in order to promote more balanced incentives for drivers.

Importantly, to the extent that short fare refusals seem to be most commonly incurred in the city and at the airport, we note that in future, as new metering technology

becomes available, 'tailor made' fare solutions to these specific problems will become increasingly available. Targeted solutions to specific problems will produce more efficient outcomes than an excessive rebalancing of the existing fare structure, which is necessarily blunt in its impact.

In the meantime, structural solutions should be explored (such as short fare ranks at the airport) and stricter enforcement action should be taken against drivers who refuse fares.

AIRPORT QUEUING

We sought to better understand the causes, incidence and impacts of long queues of taxis waiting at the airport. The trip data has been particularly revealing. Our analysis shows that long queues of taxis at the airport do not materially impact the availability of taxis elsewhere in the metropolitan area. Nor is there evidence that airport queuing results in significant consumer detriment. There does not appear to be any noticeable correlation between the length of the airport queues and passenger waiting times elsewhere in Melbourne.

The exception to this finding rests with the availability of HOVs for the transport of passengers in wheelchairs (discussed next).

HIGH OCCUPANCY VEHICLES

The TII raised a number of concerns in relation to the provision of services by HOVs. These included the lack of availability of, and long waiting times for, such vehicles for passengers in wheelchairs. The TII concluded that this was due to the current fare structure which created too great an incentive for HOVs to queue at the airport in the hope of collecting a tariff 3 fare (with its 50 per cent surcharge). The TII was also concerned about the incidence of 'tariff 3 fraud' whereby the driver would set the meter on tariff 3 when, in fact, a lower tariff was applicable.

Our finding is that HOV drivers have a greater preference to stay and queue at the airport than standard taxi drivers.

The TII recommended that the tariff 3 surcharge be replaced with a flat fee whenever the taxi is being used as a HOV. We have responded to this recommendation by replacing the Tariff 3 surcharge with a flat fee of $14. We estimated this to be the fee

that would generate the same revenue as under the 50 per cent surcharge on distance and waiting rates.

MULTIPLE HIRE TARIFF

The TII observed that the multiple hire arrangements are rarely used and therefore they ought to be simplified. Multiple hire arrangements allow passengers travelling to different destinations to share a taxi. Each passenger pays 75 per cent of the fare showing on the meter at his or her destination (that is, passengers receive a 25 per cent discount).

In the available time, we have not had the opportunity to undertake the necessary analysis into how this arrangement can be improved. However, the Government's reforms are aimed at allowing operators and drivers to offer new and innovative services to customers. We believe this is an area where industry leadership is more appropriate than regulatory fiat in finding new and innovative ways of offering multiple hire arrangements to passengers (for example by offering discounts greater than the current 25 per cent).

OTHER FARE COMPONENTS

There are three additional elements requiring consideration when setting fares: booking fees, the holiday rates and airport taxi parking fee.

BOOKING FEES

We have not had the opportunity to assess the relevance or appropriateness of booking fees in the time available. As such, we have decided that booking fees, while still applying, should not be changed from current levels (including the current booking fee for premium services). As noted below, assessing the best treatment and use of booking fees will be an important focus of our next review.

HOLIDAY RATES

At this stage, holiday rates will continue to apply: all day Christmas Day, Boxing Day, New Year's Day and from 6pm on New Year's Eve. Our new 'peak' tariff will apply as the holiday rate in the metropolitan and outer suburban zones. For urban and country zones, we applied a simple uplift factor to existing holiday rates.

AIRPORT TAXI PARKING FEE

Melbourne Airport has advised that it will be increasing the taxi parking fee on drivers to $2.70 (including GST).[3] This will result in an increase in the corresponding passenger airport parking fee from $2.00 to $2.70.

THE NEW FARE STRUCTURE

The fare setting process is about: first, establishing the appropriate overall increase in fares based on our new approach as described above; and second, identifying a fare structure that addresses all relevant matters as best as possible.

In accordance with the terms of reference, which require us to consider the matters relevant under the amended Transport Act, our findings in this report are based on a maximum fare regime.

FARE LEVELS

We find the overall fare level should increase by **12.5 per cent**.

FARE STRUCTURE

In the metropolitan and outer suburban zones, fares will also be restructured as shown in table 1. The overall effect of the new fare structure is to increase farebox revenue by 12.5 per cent.

[3] Relevant correspondence from Melbourne Airport can be found on our website.

TABLE 1 METROPOLITAN AND OUTER SUBURBAN MAXIMUM FARES

	Tariff 1 'Day' (9am–5pm)	Tariff 2 'Overnight' (5pm–9am, excluding peak)	Tariff 3 'Peak' (Fri & Sat 10pm–4am)
Standard and HOV taxis			
Flagfall ($)	$4.20	$5.20	$6.20
Distance rate ($/km)	$1.622	$1.804	$1.986
Waiting time ($/min if speed < 21 km/hr)	$0.568	$0.631	$0.695
Other fare components (applicable to tariffs 1, 2 and 3)			
HOV fee[a]	$14.00	$14.00	$14.00
Booking fee	$2.00	$2.00	$2.00
Airport booking fee	$3.00	$3.00	$3.00
Airport rank fee	$2.70	$2.70	$2.70
Holiday rate[b]	Tariff 3 to apply	Tariff 3 to apply	Tariff 3 to apply

[a] For taxis carrying 5-11 passengers, or non-wheelchair hiring passenger where the hirer specifically requests a larger than standard taxi regardless of the number of passengers carried. [b] Holiday rates apply all day Christmas Day, Boxing Day, New Year's Day and from 6 pm on New Year's Eve.

The *Transport Legislation Amendment (Foundation Taxi and Hire Car Reforms) Act 2013* will introduce amendments requiring us to make a determination before 28 June 2014 regarding the maximum charges for services provided by taxis. Accordingly, our new fares are designed to be maximum fares. Under a maximum fare regime, discounting from the metered fare is allowed.

As this review was conducted prior to finalisation of the new zoning arrangements, we have identified new fares based on the existing zone structure.[4]

As acknowledged in our terms of reference, any changes to urban and country fares would be based on our analysis of the overall change required to metropolitan fares.

[4] The Taxi Services Commission (TSC) is currently determining the boundaries for the new zones. Submissions are due to the TSC by 15 April 2014. See http://www.taxi.vic.gov.au/taxi-reform/reforms-in-progress/new-taxi-zones.

Consequently, we have applied a 12.5 per cent uplift to all flagfall, distance and waiting time rates in these two zones. The new fare structures for the urban and country zones are shown in table 2.

TABLE 2 URBAN AND COUNTRY FARES

	Urban	Country
Standard taxi		
Flagfall ($)	$3.60	$3.70
Distance rate ($/km)	$1.838	$1.879
Waiting time ($/min if speed < 21 km/hr)	$0.643	$0.658
HOV[a]		
Flagfall ($)	$3.60	$3.70
Distance rate ($/km)	$2.757	$2.818
Waiting time ($/min if speed < 21 km/hr)	$0.965	$0.987
Other fare components		
Booking fee	$2.10	$2.10
Airport booking fee	$3.00	$3.00
Airport rank fee	$2.70	$2.70
Late night fee (midnight to 6am)	$3.40	$3.40
Holiday rate[b]	$4.20	$4.20

[a] For taxis carrying 5 to 11 passengers, or non-wheelchair hiring passenger where the hirer specifically requests a larger than standard taxi regardless of the number of passengers carried. [b] Holiday rates apply all day Christmas Day, Boxing Day, New Year's Day and from 6pm on New Year's Eve.

FUEL VOLATILITY

Our terms of reference require that we look at the most appropriate way of dealing with volatile cost pressures, most notably, fuel prices.

We have considered various options including those in operation in other jurisdictions. We have concluded that the cautious approach we have taken in accounting for fuel prices in this review — as well as other measures we have taken — provides sufficient scope for the industry to manage any risks associated with volatile fuel prices in the

period to our next review (before the end of 2015). These measures are outlined in detail in the report.

In the event of unforeseen and sustained circumstances, we retain the option of revisiting our present findings or bringing forward our next determination.

INFORMED CUSTOMERS

We believe there is a strong case for requiring the driver to advise the passenger at the start of the trip which tariff is being applied.

Stickers on the dashboard should explain the fare structure (and any discount offered off the maximum fare). We would like to see the sticker also state that: "*Your driver must tell you which tariff you are paying*".

Steps should also be taken as soon as possible to ensure that meters are designed so that it is very clear to the passenger which tariff is being applied and receipts are provided to customers showing: the time at which the trip was taken, the applied tariff, and all extras including tolls and fees paid by the customer.

FUTURE DIRECTIONS

The emergence of greater competition in the taxi services market means it is the taxi industry, not the regulator, which must take increasing responsibility for determining the types and standard of services that best meet customers' preferences. At the same time, metering and other technological advances will create opportunities that have not been available until now.

For now, it is not clear how these changes will affect the setting of taxi fares in the future. Nevertheless, we see our role as becoming increasingly one of facilitation rather than strict regulation.

Going forward, we will be focusing on market outcomes that better balance supply and demand for customer responsive taxi services through fare arrangements. We will be engaging with the industry, passenger representatives and the TSC on innovative fare options.

Some of the preliminary options which we would like to examine in the times ahead are listed below. The list is not intended to be exhaustive and some of the options are incompatible with each other. In this sense, the list is intended as a 'conversation starter' ahead of our next review.

ORIGIN-DESTINATION FARES

Taxi trips differ from one another in terms of origin, destination and time of day. The current fare structure only addresses the last of these characteristics. As metering and other technologies become available, we believe it will become possible to look at fares based on their origin, destination or both. Most notably, we want to explore origin-destination fare options for heavily patronised trips such as from the airport to CBD and vice versa, as well as for trips exclusively within the city (and possibly, immediate surrounds).

MINIMUM FARES

There was quite a lot of interest in minimum fares during our consultations, that is, fares where a customer pays a minimum amount irrespective of the distance travelled. Beyond some distance, a distance rate would apply. There was no consensus about the level of the minimum fare or the distance threshold over which it would apply and it was not possible to take these ideas forward in this review. We believe there could be a strong role for minimum fares, particularly if combined with origin-destination fare arrangements.

DECLINING MARGINAL TARIFFS

These are tariffs in which the distance rate decreases with the distance travelled. Declining tariffs can be implemented in innumerable ways. The distance at which the distance tariff steps down and the extent to which it steps, and whether one or more steps are worth pursuing, would need to be subjected to detailed modelling and widespread consultation.

SEASONAL TARIFFS

The trip data suggests that there is a reasonably distinct difference in the pattern of trips depending on the time of year. While the months of February to November are quite consistent in their pattern of taxi use, December and January are quite distinct. It is worth considering whether tariffs should reflect these three 'seasons'.

NEW TIME CHARGE

Under current arrangements, a distance rate applies when the taxi is travelling at speeds above 21 kilometres per hour (kph). Below this speed a waiting time rate applies rather than the distance rate. We have not had the opportunity to assess whether the 21 kph threshold for the waiting time charge is still relevant (for example in Sydney it is 26 kph).

HYBRID DISTANCE-TIME TARIFFS

As just noted, under current arrangements either a distance rate applies or the waiting time rate applies. We are interested in exploring whether options might exist in which both distance and waiting time rates apply simultaneously in some combination. Such arrangements might allow fares to better reflect industry cost drivers.

A ZERO TARIFF FOR PRE-BOOKED SERVICES

Currently, taxis would find it difficult to offer a fixed price service to passengers. We are mindful that the reforms implemented by the Government are intended to promote competition. The limited ability for taxis to offer fixed price fares makes it difficult for taxis to compete with pre-booked only service providers (that is, hire cars). We are interested in exploring the option of setting both a minimum booking fee and a very high *maximum* booking fee (say, $2 and $1000, respectively). In the event that an operator or driver offered to charge a booking fee between the minimum and the maximum, then a zero distance and waiting time tariff would apply. This would have the same effect as charging the customer a fixed price for the journey. Of course, customers would always retain the option of asking for a metered fare.

MULTIPLE HIRE AND SHARE-RIDE ARRANGEMENTS

As already noted, we are looking for industry leadership on how multiple hire arrangements might be made to work more effectively. Likewise, we are keen on exploring how fare arrangements could be used to facilitate share-ride arrangements (the two differ as share-rides will typically involve a fixed fare rather than a metered fare).

DEREGULATING FARES IN PERIODS OF LOW DEMAND

Price regulation is based on the proposition that customers are not in a position of strength when making a purchase (often because of a lack of options due to the

absence of competition). As the reforms take hold, it will be worth considering whether fares (particularly pre-booked fares) need to be regulated at times of low demand.

TARIFF CHOICE

As operators, drivers and networks seek to innovate, it will be worth considering whether they be allowed to submit their own tariff structures to the fare regulator for approval. While fares continue to be regulated, we would need to develop a set of assessment criteria which applicants would need to satisfy. Similarly, satisfactory customer protections would need to be put in place to ensure customers were not materially disadvantaged.[5] If all conditions were satisfied, the applicant would be free to offer its new tariffs in place of (or possibly alongside) the regulated tariffs.

[5] Particularly with regard to traditional rank and hail services.

1 CONTEXT AND CONSULTATION PROCESS

KEY POINTS

In conducting our review, we have considered the matters required by the terms of reference supplied by the Minister on 2 February 2014.

We have also had regard to the matters relevant under the amended Transport Act, and the Victorian Government's response to the final recommendations of the Taxi Industry Inquiry where relevant for fare setting purposes.

In accordance with the terms of reference and the relevant legislation, our new fares are designed to be maximum fares.

1.1 INTRODUCTION

The terms of reference require us to use the information from our consultation with the taxi industry since September 2013 to report on appropriate fares, including for the country and regional areas. The terms of reference also require us to look for an appropriate way of dealing with volatile cost pressures in the industry, such as fuel prices. The terms of reference are at appendix A.

The terms of reference require us to consider:

- the Victorian Government's response to the final recommendations of the Taxi Industry Inquiry, where relevant for fare setting purposes and
- the matters that it would have to consider or take into account in making a price determination for fares for taxi services under the *Transport Legislation Amendment (Foundation Taxi and Hire Car Reforms) Act 2013* had the Act commenced.

The *Transport Legislation Amendment (Foundation Taxi and Hire Car Reforms) Act 2013* will introduce amendments which will require the Commission to make a determination before 28 June 2014 regarding the maximum charges for services provided by taxis. Accordingly, our new fares are designed to be maximum fares.

1.2 OUR APPROACH FOR THE DIFFERENT TAXI ZONES

In light of the time available for this review, we have adopted the following approach to determine new fares for the current taxi zones:

- metropolitan zone — we determine new fares based on the methodology and analysis presented in chapters 3 to 6 of this report
- outer suburban zone — since its fare structure is the same as the metropolitan zone, we apply the same fares as in the metropolitan zone
- urban zone — because of time constraints and the low survey response rate from urban zone operators, we have insufficient information about the cost profile of these operators. For the urban zone, we simply apply a 12.5 per cent uplift to all existing urban fares (excluding booking fees). We do not make any changes to the urban zone fare structure
- country zone — we did not survey operators in the country taxi zone.[1] Similar to the urban zone, we have applied the overall percentage change in metropolitan fares (12.5 per cent) to existing country fares, maintaining the existing fare structure.

[1] At the time our review commenced, we were not expecting that it would cover country fares. This was altered in the terms of reference issued to us in February 2014 by the Minister for Public Transport.

As this review was conducted prior to finalisation of the new zoning arrangements, we have identified new fares based on the existing zone structure.

1.3 OUR CONSULTATION PROCESS

Broad and effective stakeholder engagement is an important aspect of our public reviews. Engaging with customers and industry participants provides us with first-hand information and views on issues relevant to our work. Table 1.1 sets out our review process.

The review formally commenced with the release of a '*Call for Ideas'* paper. This paper posed a number of questions to stakeholders, including both general questions (aimed at all stakeholders) and specific questions (to certain parties in the industry). We received 24 submissions in response to the paper.

We subsequently released a '*Principles Paper*', which informed stakeholders of the principles we would apply in determining a new fare structure and invited feedback on these principles. We also released a '*Summary of initial consultations'* paper, which summarised the suggestions made by stakeholders in response to our *Call for Ideas* paper.

TABLE 1.1 REVIEW PROCESS

Review process	Timing
Call for Ideas paper released	10 Sep 2013
Submissions on *Call for Ideas* paper due	8 Oct 2013
Stakeholder consultation	Sep 2013
Principles Paper released	22 Oct 2013
Summary of initial consultations paper released	29 Nov 2013
Surveys of taxi drivers and operators released	4 Dec 2013
Minister for Public Transport announcement of early review	9 Jan 2014
Surveys of taxi drivers and operators due	17 Jan 2014
Terms of reference issued by Minister	2 Feb 2014
Final report	31 March 2014

We have also met with a wide variety of stakeholders including drivers, fleet operators, licence owners, industry bodies and other stakeholders. Our consultation process included numerous onsite visits to taxi operator offices and their workshops, and network service providers in the metropolitan, outer suburban and urban taxi zones.

OUR OPERATOR AND DRIVER SURVEYS

We developed two surveys; one for taxi operators and the other for taxi drivers.

The operator survey sought to gather information on taxi operator costs and revenues. This cost information has been used as an input in determining the required fare level change (see chapter 3). We received 275 operator responses (there are approximately 2250 operators in the metropolitan, outer suburban and urban taxi zones), covering over 1000 taxis. There were 221 survey responses from metropolitan operators.

The driver survey collected information on driver earnings and costs, and was also developed to better understand driver incentives and behaviour.

These surveys were distributed via NSPs, fleet operators, at Melbourne Airport and via our and the Victorian Taxi Association's (VTA's) websites.

We received 132 driver survey responses. In addition, the operator survey was sent to all registered operators in the metropolitan, outer suburban and urban taxi zones.

Both surveys were translated into Greek, Hindi, Arabic and Italian.

CONSUMER CONSULTATION

While much of our engagement has appropriately been with stakeholders involved in the provision of taxi services, we have also had valuable input from groups representing consumers, for example Scope (a not-for-profit organisation providing disability services in Victoria) and Inclusion Melbourne (an organisation that provides services to people with an intellectual disability).

Ideally we would have undertaken studies on consumer preferences regarding taxi services and fares. We have not been able to undertake such studies in the time available and instead have relied on existing studies, surveys and information sets which have provided valuable insights. This will be an important area of work ahead of our next fare review.

1.4 OBJECTIVES AND FARE SETTING PRINCIPLES

The terms of reference require us, among other things, to consider the matters we would have to take into account in making a price determination for taxi fares under the amended Transport Act. This, in turn, requires us to consider two overarching objectives. These are:

- to promote the long term interests of Victorian consumers, having regard to the price, quality and reliability of essential services (section 8 of the *Essential Services Commission Act 2001*) and
- to promote the efficient provision and use of commercial passenger vehicle services (section 162B of the amended Transport Act).

Having considered these matters referred to in the terms of reference, we have developed the following principles. These principles are designed to assist us achieve the objectives set out in the terms of reference. The principles were discussed in our *Principles Paper* and are set out in box 1.1.

BOX 1.1 TAXI FARE REVIEW PRINCIPLES

1. Fare regulation must reflect the broader competitive policy reforms being implemented by the Victorian Government.
2. Taxi fares should reflect the reasonable costs of providing taxi services in an increasingly competitive market.
3. Regulated taxi fares should provide a reasonable return on service providers' investment.
4. Taxi fares should be set so as to ensure there is sufficient revenue for the industry to meet passenger demand for taxi services.

Continued next page

BOX 1.1 (CONTINUED)

5. Taxi fare structures should promote the right incentives for users of taxi services.
6. Taxi fare structures should promote the right incentives for operators and drivers.
7. Taxi fare schedules should be simple to understand and readily implementable.
8. Price regulation (fare setting) should focus only on the provision and use of resources (taxis).
9. As customers and industry respond to the reforms being implemented by the Victorian Government, fare structures should evolve to reflect changing needs and expectations.
10. Customer and industry input must inform fare setting.
11. Taxi fares should be set in accordance with a clearly specified methodology and should avoid price shocks and arbitrary changes to the methodology.
12. Over the longer term, as the industry and community adapt to the new regulatory arrangements, fare setting should become less prescriptive.

Source: Essential Services Commission 2013, *Taxi fare review 2013-14 — Principles Paper*, October 2013.

1.4.1 APPLYING THE TAXI FARE REVIEW PRINCIPLES

We have undertaken our task recognising that our fare regulation must work within the broader policy reforms being implemented by the Victorian Government (Principle 1).

As noted earlier, we have sought to engage as many industry stakeholders as practicable to inform our fare review (Principle 10).

In determining the appropriate average fare increase, we have been guided by considerations under Principles 2-4 which relate to the costs of supplying taxi services. These principles require that fares be set at a level where the industry can recover reasonable costs in an increasingly competitive market, provide a reasonable industry return, and generate sufficient industry revenue to meet passenger demand for services.

We have examined how the fare rise we have identified as being necessary is best translated into the various fare components that would promote a more efficient supply and use of taxis and provide the right incentives for users of taxi services, operators and drivers (namely Principles 5, 6, 7 and 8).

Limitations do exist, however. The types of components within the fare structure must be simple and readily implementable, given the immediate meter technology and other constraints (Principle 7). This largely limits the types of fare components, for now, to those that exist currently.

Having established the types of fare components, there are a number of options in implementing a fare rise of any given size.

The simplest approach would be to apply the average fare rise proportionately across each element of the fare structure. This has been the practice in the past and elsewhere. However, as outlined below, there are a number of imbalances in the taxi services market which we consider can be addressed through (at least in part) improved incentives from changing the fare structure rather than applying a simple uplift factor.

In redesigning the tariff structure, we have sought to provide better operator and driver incentives to deliver improved and more efficient services to customers. Specifically, we have considered the following imbalances in the taxi services market:

- short fare refusals
- long queues of taxis at the airport
- a better matching between the supply of, and demand for, taxis at different times during the week and
- service delivery concerns including high occupancy vehicles.

The proposed changes to the average fare level and fare structure are based on a methodology that is carefully outlined in this report. We have sought to minimise as much as possible price shocks for customers, drivers and operators (Principle 11).

In our future fare setting, we will fully take into account the industry responses to the current reforms (Principle 9). Moreover, we expect that future fare setting will become

less prescriptive as the industry adapts to a more competitive environment (Principle 12).

In developing our review approach and assessment of our fare options, we have consistently applied these fare principles

1.5 FUTURE TAXI FARE REVIEWS

The amended Transport Act (once the amendments have been fully proclaimed) will require us to make an initial determination of maximum fares for taxi services no later than 28 June 2014. Thereafter, we must complete a review of each price determination at least once every two years.

Following this final report on new taxi fares, we believe it would be appropriate for our next review to be completed before the end of 2015. Although this is earlier than the statutory requirement of June 2016, it will enable fares to evolve in line with new developments in the industry arising from the reforms being implemented by the Victorian Government.

2 THE VICTORIAN TAXI INDUSTRY: A SNAPSHOT

KEY POINTS

Information on taxi availability and customer demand for taxis has guided our finding on restructuring fares.

In general, more taxis are on the road during periods of high demand.

However, when demand peaks on Saturday nights, taxi supply is not at its peak. The number of taxis on the road peaks on Friday evenings.

Existing information on overall satisfaction with taxi services is unclear. One survey suggests that taxi users are increasingly satisfied with taxi services, yet customer satisfaction with taxis is lower than for other modes of transport.

Satisfaction with taxi availability is highest on Monday to Thursday. It is lower for Friday and weekends, and lower still when a major event is taking place.

Fare refusals are the most significant complaint raised by customers with the Taxi Services Commission. The available data does not distinguish between refusals for short distance trips or longer trips.

This chapter gives a broad overview of the Melbourne metropolitan taxi industry. It discusses the factors that influence the supply of and demand for taxi services summarises some of the most recent taxi data and highlights the findings of the current key customer studies and information sets.

2.1 TAXI MARKETS

Currently, the taxi market can be categorised into three submarkets:

- Hail — taxis are hailed or flagged down by passengers from the side of the road. It is more difficult to encourage competition in the hail market because it is harder for consumers to make informed decisions. It is difficult for a consumer to assess the quality of the taxi driver and it is effectively impossible to 'shop around' as it is unclear when the next taxi can be hailed or if the first taxi will still be available.
- Rank — designated taxi ranks are signposted throughout metropolitan Melbourne, major regional cities and country towns. In most cases, passengers stand at the rank and queue for a taxi. Ranks also act as a waiting area for taxis during times of low demand.

  As a matter of convention, customers at ranks are expected to take the first taxi in the queue, however this is not a regulatory requirement — passengers are free to choose any taxi from the rank. Accordingly, ranks provide some scope for consumers to 'shop around', as they can choose between available taxis and compare their quality and fare offerings (were they to differ). This will become particularly relevant in markets where competition exists and taxi operators look to differentiate their services based on fare levels, service offerings and branding.
- Pre-booked — this is when bookings are made with network service providers (NSPs) who then dispatch a taxi to that customer's location. Passengers may also contact a driver directly, and independent booking service providers are increasingly entering the market (e.g. goCatch, Ingogo, Uber). A 'ready-to-ride' booking is one in which the consumer is ready to travel and would like the next available taxi.

  Compared to the hail and rank submarkets, the pre-booked submarket offers the greatest opportunity for competition, as the ability for consumers to 'shop around' is highest. This may change as new technologies open new opportunities.

Analysis of 2012 NSP data revealed that in the Melbourne metropolitan market, the rank and hail submarkets accounted for 68 per cent of all taxi trips and pre-booked trips (including ready-to-ride) accounted for 32 per cent. Our 2008 taxi fare review estimated that phone bookings accounted for 60 per cent of all trips in metropolitan areas versus 90 per cent of all taxi trips in country areas.

2.2 THE SUPPLY OF TAXI SERVICES

Industry legislation mandates that all taxis in Victoria must be licensed to operate in one of four taxi zones and all drivers must be accredited by the industry regulator, the Taxi Services Commission (TSC).

As at February 2014, there were 5226 taxi licences in Victoria, including 684 wheelchair accessible taxis (WATs). The majority of these licences (4310) operate in metropolitan Melbourne and the remainder in the outer suburban, urban and country taxi zones.[7] There are 15 935 active taxi drivers out of a total of 30 493 accredited drivers.[8]

A range of factors affect the supply of licensed taxis to meet customer needs at any point in time, including:

1. Expected revenue — the decision to put a taxi on the road (whether for a particular shift or even the initial decision to lease or buy a taxi licence) will be influenced by the expected revenue from doing so. Expected revenues are generally higher during peak periods such as Friday and Saturday nights or after major sporting events. The early hours of the morning from Monday to Thursday are the times with the lowest expected revenues.
2. Costs of providing taxi services — the costs (both monetary and non-monetary) of providing taxi services affect the decisions of an operator to supply a vehicle. There are different operating costs between standard taxis and WATs. Further, the cost of operating taxis depends on the number of taxis being operated and time of operation. It has been suggested to us by some taxi operators that on Friday and Saturday nights, there may be additional monetary costs in terms of higher risk of vehicle damage and non-payment of fares. Non-monetary costs may also be higher due to the risk of harassment or physical assault. While the industry is traditionally

[7] Taxi Services Commission 2014, *Taxi and hire car industry statistics*, accessed at www.taxi.vic.gov.au/about-us/overview/industry-statistics, accessed on 21 March 2014.

In the past, the Government restricted the number of taxi licences. However, the Taxi Services Commission can now issue new licences at any time to approved applicants at a set price. On 20 March 2014, the Taxi Services Commission made available up to 60 new metropolitan licences (14 for wheelchair accessible taxis).

Carey, A. 2014, *Taxi industry attacks Victorian Government's release of 60 new metro licences*, The Age, 20 March.

[8] Taxi Services Commission 2014, *Taxi and hire car industry statistics*, accessed at www.taxi.vic.gov.au/about-us/overview/industry-statistics, accessed on 21 March 2014.

organised around shifts, in the future, more flexible arrangements may become standard practice.

3. Behavioural factors — some drivers may target a certain revenue figure for each shift, and once this is achieved, the driver may consider finishing his/her shift early. Further, some drivers may only operate in particular areas and at particular times.

4. Technology and service innovation — mobile phones have altered the way customers and drivers operate. This technology has allowed passengers to interact directly with the taxi driver when booking a taxi, therefore reducing waiting times for passengers and 'down time' for drivers.

   Technological innovation may also cause a degree of convergence between hail, rank and pre-booked submarkets. A 'ready-to-ride' phone application narrows the practical distinction between the pre-booked and the hail and rank submarkets.

2.2.1 WHAT DOES THE DATA TELL US ABOUT SUPPLY?

The total supply of taxis is limited by the number of available licences. In 2012, there were 4335 taxi licences for the Melbourne metropolitan zone, of which 588 were 'peak service' licences with restricted hours of operation to between 3pm and 7am. The maximum number of taxis in operation at any hour in 2012 was 4078 (94 per cent of all taxis) on Friday 28 September at 7pm (this was AFL Grand Final eve).

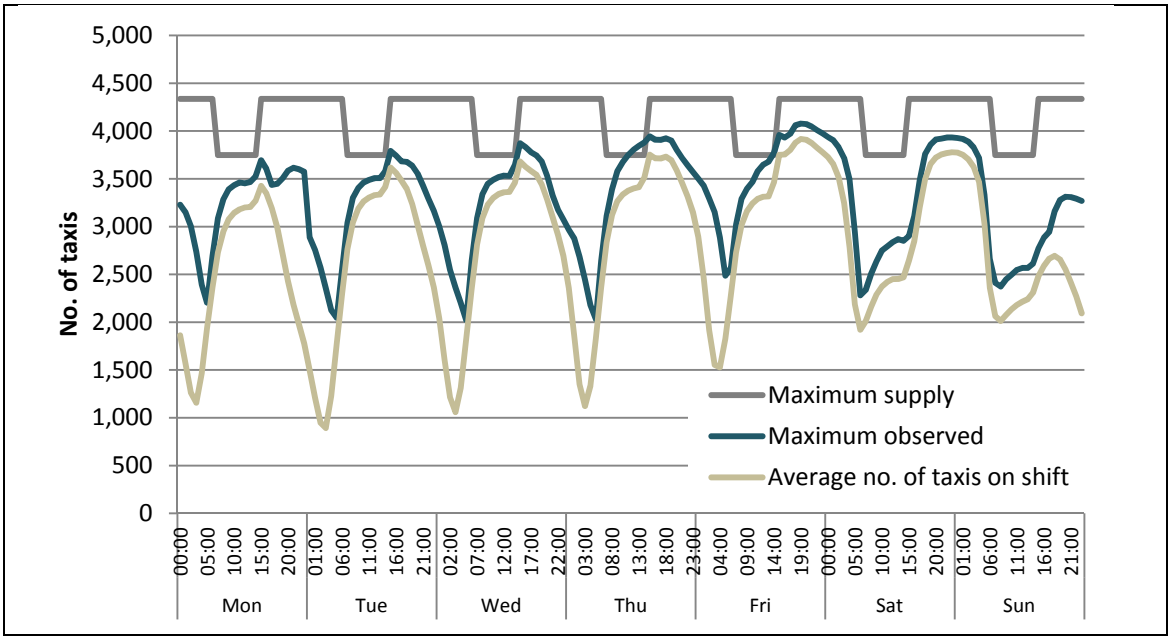
We have received data from the major NSPs: Silver Top, Black Cabs and West Suburban Taxis. Through analysis of this data, we have calculated the number of vehicles in operation in metropolitan Melbourne at any given hour, that is, the available supply of taxis.

Figure 2.1 plots the average hourly number of taxis in service. The key supply characteristics of the taxi market are:

- Generally, the supply of taxis is greater in the evenings compared to early mornings.
- The average number of taxis in operation peaks around 3pm, which is consistent with 'peak service' taxis entering the market.
- Generally, fewer taxis are on the road on Saturday than on weekdays, and even fewer taxis are in service on Sundays.

- On average, more taxis are available on Friday nights than on Saturday nights. The average number of taxis available at 10pm on Fridays is 3825 and on Saturday it is 3770. If we take 4078 as the maximum fleet that can be mobilised in any given hour, then an average of around 300 taxis are out of service on Saturday nights.
- With one exception, the average number of taxis in service does not fall below 1000 vehicles.

FIGURE 2.1 AVERAGE NUMBER OF METROPOLITAN TAXIS IN OPERATION BY DAY AND HOUR



[a] Taxis are considered "on shift" whether they are logged in for all or part of an hour.

Data source: Metropolitan network service provider shift data 2012.

2.3 WHO DEMANDS (USES) TAXIS?

In 2012, about 27 million taxi trips were taken in the Melbourne metropolitan zone. Taxi trips are taken for a number of reasons and passengers typically fall into one of the following groups:

- Corporate/business travellers — people who use taxis for business purposes

- Private or social (entertainment) users — people who use taxis to and from functions or events
- Tourism — people who use taxis because they are visitors to Victoria and may not have their own vehicle
- Users with reduced mobility — people who use taxis because they cannot drive or easily access other forms of public transport and
- Light or occasional users — people who use taxis in special circumstances, such as travelling to and from the airport.[9]

The 2012 trip data indicated that over one-in-five taxi trips were taken between 7pm and 3am on Friday and Saturday nights. Further, one-in-eight of all taxi trips was either to or from the airport.

These trip patterns are also reflected in recent surveys on taxi use and satisfaction. In the surveys, the main reasons for using taxi services were for social occasions such as travelling to and from entertainment and dining venues and going to the airport.[10] Further, survey results confirm that taxis were most often used between 5:00am and 7:30pm during the week and between 7:30pm and 5:00am on weekends.[11]

2.3.1 FACTORS AFFECTING DEMAND FOR TAXIS

There are many factors that affect customer demand for taxi services. These factors include:

1. Price of the service — all other things being equal, we would expect higher taxi fares to result in lower demand for taxi services and vice versa. The relationship between demand and price would vary with customer type, time and purpose of travel.

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[9] See Taxi Industry Inquiry 2012, *Customers first — service, safety, choice, Draft report*, May, p. 60 and Biggar, D. 2011, *Why and how should we regulate taxis*, prepared for the Victorian Taxi Inquiry Roundtable 2 September 2011, August, p. 10.

[10] Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey*: *Metropolitan taxis report, Quarterly report October – December,* p. 66 and Ipsos 2012, *Taxi and hire car research 2011*, prepared for the Victorian Taxi Industry Inquiry, January.

[11] Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey*: *Metropolitan taxis report, Quarterly report October – December*, p. 66.

2. Alternatives — the availability, cost and quality of alternative forms of transport will influence demand for taxis. Substitutes could include public transport, hire cars (PBOs), specialist bus services (for example, Airport bus), driving one's own car (influenced by car park availability and cost), cycling, walking, or car-pooling.
3. Time of travel — the time of the day and timing of special events may influence the demand for taxis. The timing of special events, such as sporting and entertainment events, influences the demand for taxis.
4. Technology and service innovation — improvements in technology may influence demand for taxis and assist in allocating demand for taxis more efficiently. Mobile phones have the potential to improve the link between users and taxis by making it easier for someone to find a taxi. This could decrease passenger waiting times, increase demand and improve service quality and convenience.
5. Reputation and image — the reputation and image of taxi services may influence the demand for taxi services. If consumers identify the taxi industry generally, or a specific service provider, as offering better value-for-money (e.g. high quality service for a reasonable price), this could increase consumer demand.

2.3.2 HOW USERS RESPOND TO CHANGES IN FARE LEVELS

The price of a taxi trip is a factor affecting demand for taxi services. In general, higher taxi fares relative to the alternatives are likely to reduce demand for taxi services. The magnitude of the decrease in demand depends on how sensitive users are to changes in price — the price elasticity of demand.

Different customer groups are likely to have different degrees of responsiveness to changes in fares.

The Taxi Industry Inquiry (TII) engaged the Hensher Group to conduct research into demand for Victorian taxi and hire car services. The study estimated user responsiveness to price changes for different customers groups, including tourists, business people, and Multi Purpose Taxi Program (MPTP) card holders.[12] It found demand responses to increased fares were lowest for MPTP, business and day to day

[12] MPTP provides subsidised taxi fares for Victorians with severe and permanent disability who also experience financial hardship.

travellers, and were highest for tourists and night time travellers. According to the Hensher Group, a 10 per cent increase in fares will reduce business demand by 6.5 per cent but tourist demand by 14.8 per cent and a 10 per cent increase in fares will reduce day to day travel by 7.5 per cent but night time travel by 11.3 per cent (table 2.1).

TABLE 2.1 INDICATIVE USER RESPONSES TO FARE INCREASE

	Change in demand for trips in response to 10 per cent fare increase (%)
Tourism	-14.78
Business	-6.45
Day to day	-7.53
Night time travel	-11.32
MPTP card holder	-6.05
Weighted average	-10.42

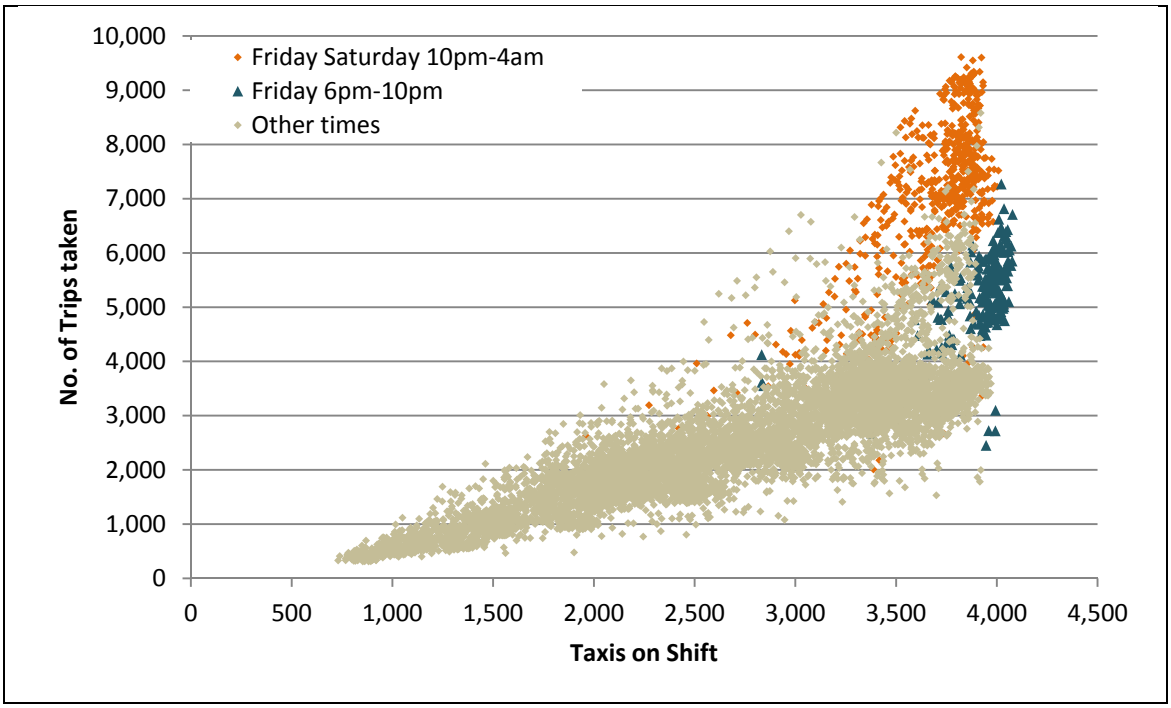
Source: The Hensher Group 2012, *Demand for taxi and hire car services in Melbourne*, *Victoria*, April, p. 46.

2.4 THE BALANCE OF SUPPLY AND DEMAND

The NSP trip data allows us to compare the number of taxis in operation (supply) with the number of trips taken. Figure 2.2 illustrates the relationship between these two variables, which indicates:

- there is a positive relationship between the number of taxis in operation (the supply of taxis) and the number of trips taken (the supply of trips)
- the largest number of taxi trips were taken on Friday and Saturday nights between 10pm and 3am when most taxis are on the road
- in most hours of the week, there is more than one taxi for each available trip. This relationship dominates the pattern of service provision with the exception of Friday and Saturday nights and
- the supply constraint (when the maximum number of vehicles are on the road) would 'bite' on Friday and Saturday nights.

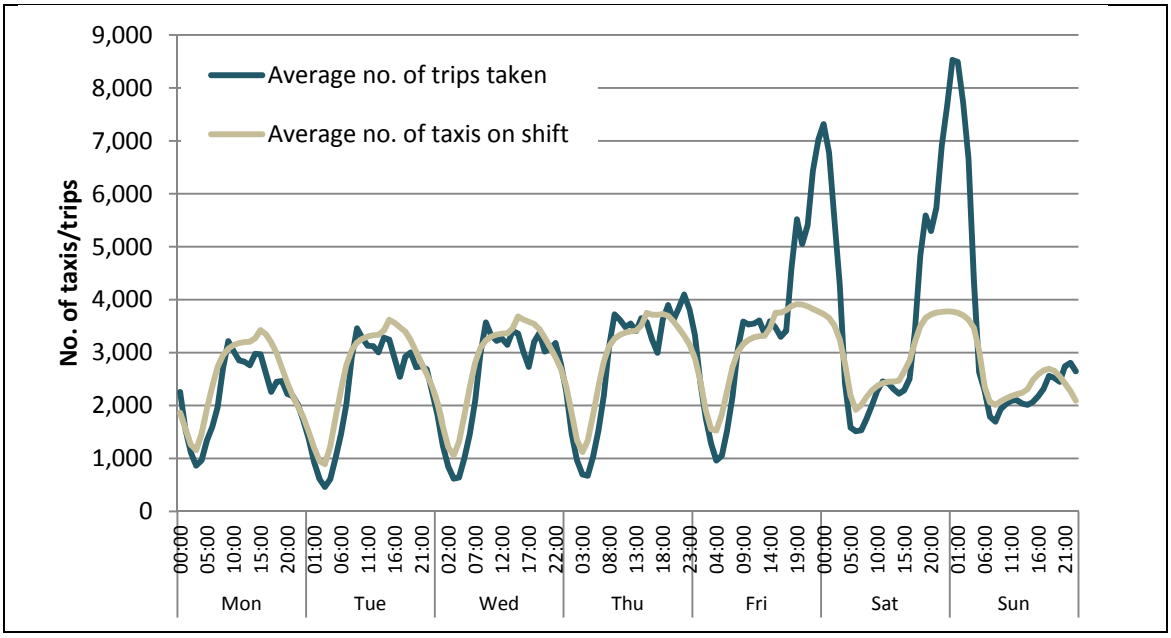
FIGURE 2.2 HOURLY TRIPS TAKEN AND TAXIS IN OPERATION
1 January – 31 December 2012



Data source: Metropolitan network service provider shift data 2012.

A more detailed breakdown in figure 2.3 of the average number of taxis on the road and the average number of trips shows that the number of taxis available in relation to trips taken varies throughout the course of an average week. Other than the Friday and Saturday night peak periods, the supply of taxis appears sufficient to meet demand. In many cases, especially overnight and in the middle of the day, there are more taxis available than trips demanded. For example, between 2am and 4am there are more taxis on the road than the number of trips taken, while on Fridays and Saturdays between 6pm and 1am there are more trips taken than there are taxis in operation.

FIGURE 2.3 AVERAGE NUMBER OF TRIPS AND TAXIS PER HOUR
1 January – 31 December 2012



Data source: Metropolitan network service provider shift data 2012.

2.5 WHERE'S THE MISSING DEMAND?

Based on the trip data provided to us (2011–2013) and discussions with operators and drivers, there appears to have been negligible growth in the overall demand for taxi services over recent years. Melbourne's population has increased from 3.8 million in 2008 to 4.1 million in 2012.[13] This equates to an overall increase of 7.9 per cent or an annual average growth rate of 1.9 per cent.

Although population growth need not translate one-to-one into increased patronage of taxis, it is a little perplexing why there appears to have been no growth in patronage in

[13] Australian Bureau of Statistics 2013, *Regional population growth – Australia 2012*, Catalogue 3218.0, August, available from www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3218.02012?OpenDocument.

recent years. This is all the more surprising given the absence of any fare increases over the last 5 years.

If we assume that the industry could have benefited from patronage growth of 5 per cent, out of the 7.9 per cent of population growth over the last few years, and assume that industry costs would have increased by something less than this (due to large fixed and sunk costs), then net industry earnings may have been $60–$70 million higher over the last 3 years.

All things being equal, it would seem that this latent demand would have been readily available to an industry that was intent on 'growing the pie'. It is beyond the scope of this review to assess why such growth opportunities were not pursued.

2.6 CONSUMER SATISFACTION AND PREFERENCES

Understanding customer satisfaction and preferences are an important part of the taxi fare setting process. Knowledge of customer satisfaction with taxi services can inform the development of fare options and highlight consumer concerns relevant to the industry regulator. Similarly, by understanding customer preferences on fare structure options, we can better develop fares consistent with those preferences, while also achieving industry viability.

We have considered the following key studies and information sets:

- the *Public Transport Customer Satisfaction Monitor Survey – Metropolitan Taxis Report.* This ongoing survey has been conducted quarterly since 2005 by Wallis for the VTD/TSC. Over 400 taxi users are surveyed to measure customer satisfaction with taxi services and specific aspects of service quality, including waiting times, driver quality and booking services.
- TSC complaints data — customers can lodge taxi related complaints with the TSC, typically on matters concerning driver behaviour, fare refusals and cleanliness of the vehicle.
- Taxi and hire car research 2011 (Ipsos Social Research Institute) — the TII engaged the Ipsos Social Research Institute to better understand users and non-users of taxi services. Questions included overall customer satisfaction with

taxis, consumer behaviour, motivators and barriers to using taxis and attitudes to taxis.

- Consumer detriment research 2012 (Latitude Insights) — the TII commissioned Latitude Insights to determine the scope and magnitude of personal consumer detriment experienced as a result of consumer interactions with taxi services. Questions included the nature of problems encountered with taxi services, frequency of problems and perceived value of service.

2.6.1 CUSTOMER SATISFACTION WITH THE TAXI INDUSTRY

The Public Transport Customer Satisfaction Monitor Survey (Public Transport Survey) and the Ipsos Social Research Institute report scores for overall customer satisfaction with the taxi industry.

PUBLIC TRANSPORT SURVEY

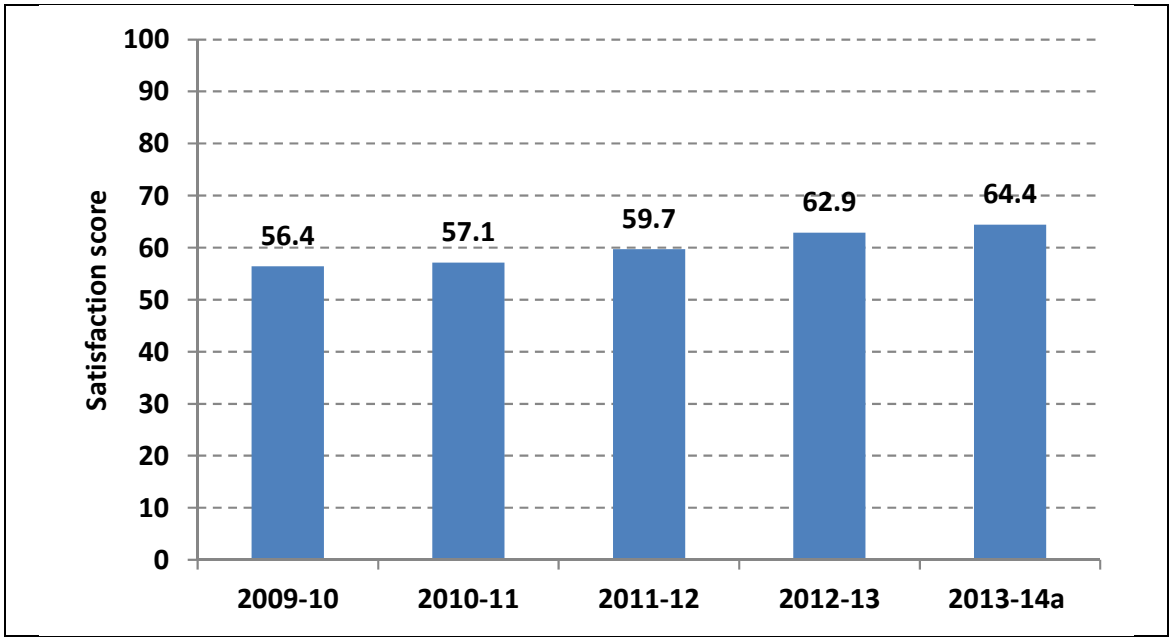
Overall customer satisfaction

The TII found customer satisfaction as measured by the Public Transport Survey had been steadily declining since 2005 (although there was some improvement in 2011). More recent results from this survey indicate that overall customer satisfaction has been steadily improving since early 2011. Overall satisfaction with Melbourne metropolitan taxi services increased from an average of 57.1 in 2010-11 to 64.4 in the December quarter 2013 (figure 2.4).[14] Customer satisfaction with taxis is lower compared to other modes of transport. For example, overall customer satisfaction with metropolitan trains was 67.4, for metropolitan tram services 70.8 and for metropolitan buses 70.4.[15]

[14] This overall customer satisfaction result is based on a 6 point scoring scale.

[15] Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey: summary report of all modes, October to December*, pp. 2-3.

FIGURE 2.4 OVERALL SATISFACTION WITH TAXI SERVICES BY FINANCIAL YEAR
2009-10 to 2013-14



a 2013-14 result reflects the December quarter 2013.

Data source: Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey: Metropolitan taxis report, Quarterly report October – December*, p. 4.

Customer satisfaction index

The Public Transport Survey also reports a customer satisfaction index (CSI). The CSI suggests that customers were satisfied with the taxi industry. In the December 2013 quarter, the CSI was 71.3, where 0 is totally dissatisfied and 100 is totally satisfied.[16]

Statistical methods are used by Wallis to determine which aspects of taxi service have the most effect on taxi users rating of overall satisfaction with taxi services. In the December 2013 quarter, the most important determinant of overall satisfaction was satisfaction with the taxi driver.

[16] Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey*: *Metropolitan taxis report, Quarterly report October – December*, p. 9.

IPSOS SOCIAL RESEARCH INSTITUTE — OVERALL SATISFACTION

In September and October 2011, the Ipsos Social Research Institute surveyed 852 users and non-users of taxi and hire car services.[18] Survey participants were asked '*how satisfied are you with taxis in Victoria?*' Ipsos reports that overall satisfaction with taxis received an average score of 5.4 out of 10 across taxi users and non-users.

In addition to reporting overall satisfaction, the survey looked to identify the key drivers of satisfaction (and dissatisfaction). It found that the critical factor driving satisfaction is taxi driver behaviour.

2.6.2 CUSTOMER ATTITUDES AND EXPERIENCES WITH TAXI SERVICES

After examining the results of existing studies and information sets, we can make some observations about customer attitudes towards taxi availability, satisfaction with the price of taxi trips and experiences with trip refusals (fare refusals). These observations and their implications for this taxi fare review are discussed below.

TAXI AVAILABILITY

Since 2009, the Public Transport Survey has reported customers using taxis on weekdays are satisfied with taxi availability from Mondays through to Thursdays. In the December quarter 2013 survey, customers who used taxis on weekdays gave a score of:

- 73.7 for the time required to wait for a pre-booked taxi from Mondays through Thursdays and
- 69.8 for the wait time for hailing a taxi on Mondays through Thursdays.[19]

[18] Ipsos Social Research Institute 2012, *Taxi and hire car research 2011*. Prepared for the Victorian Taxi Industry Inquiry, January.

[19] Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey*: *Metropolitan taxis report, Quarterly report October – December*, pp. 13 and 20.

This compares to a satisfaction score of 59.8 for taxi availability on Fridays and weekends.[20]

Customer satisfaction with waiting times is even lower (at 42.2) when a major event is taking place. This area of dissatisfaction is confirmed by the Latitude Insights survey which reported that about a quarter (26 per cent) of their total sample of taxi users experienced a shortage of taxis late at night or after a major event.

Although there was no direct question in the Ipsos Social Research Institute survey regarding taxi availability on Friday and Saturday nights, there was low agreement with the statement '*it is easy to find a taxi when you need one*', with an average score of 4.8 out of 10.

These results indicate that it would be desirable for the taxi fare review to seek to improve taxi availability during periods of high demand to better meet customer expectations.

SATISFACTION WITH THE PRICE OF TAXI TRIPS

There is no clear evidence that customers are either satisfied or dissatisfied with the current price of taxi trips. The Public Transport Survey indicates that customers are satisfied with the price of taxi trips. Customer satisfaction with the price of taxi trips in the December quarter 2013 survey was 67.9.

In contrast, the Latitude Insights research found that 44 per cent of taxi users believe taxi trips are too expensive. Similarly, Ipsos reported that 46 per cent of irregular taxi users do not use taxis more often because of price.

[20] This score implies customers are somewhat satisfied with taxi availability on Fridays and weekends but needs to be interpreted with caution for two reasons:

1. The survey question is about taxi availability on Fridays and weekends and not taxi availability on Friday and Saturday nights.
2. The Public Transport Survey samples are obtained by selecting fixed line phone numbers. This means that the survey sample may be skewed away from younger adults, because of their tendency to use mobile phones in place of fixed line phones. Although a breakdown of the demographic sample was unavailable for the December quarter survey, the June quarter sample had a large disproportionate number of respondents from the 55 plus age group (58 per cent).

FARE REFUSALS

Short fare refusals was highlighted as a significant concern by the TII. Complaints data collected by the TSC in 2012-13 shows that 434 complaints, or 16 per cent of all complaints, arose because of a driver refusing a fare. While the data does not capture the intended trip length (i.e. whether it was a 'short', 'medium' or 'long' trip), over 77 per cent of refused fare complaints happened in the CBD or the inner suburbs.

In the December quarter 2013 Public Transport Survey, customers gave a satisfaction score of 63.8 to the question '*how satisfied are you that taxi drivers are willing to take you, even for short trips?*'[21]

The Latitude Insights study in 2011 indicated that 38 per cent of taxi users had experienced a problem with trip refusal, with 30 per cent experiencing problems with short fare refusal and 17 per cent with destination refusal (multiple response answer).[22]

SUMMARY OF OBSERVATIONS

1. Customers are generally satisfied with taxi availability from Monday through to Thursdays.
2. Customer waiting times for taxis are longer when major events are taking place and on Friday and Saturday nights.
3. Customers are more satisfied with pre-booking taxis than with hailing taxis on the street.
4. There is no clear evidence that customers are either satisfied or dissatisfied with the current price of taxi trips.
5. While taxi fare refusals is a concern, its full extent remains unknown.

IMPLICATIONS FOR FARE SETTING

Taxi fare setting (determining the overall level of fares and the fare structure) can play an important role in improving operator and driver incentives to meet customer

[21] Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey*: *Metropolitan taxis report, Quarterly report October – December*, p. 43.

[22] Latitude Insights 2012, *Consumer detriment research*, January, p. 27.

requirements. Likewise, fare levels and tariff structures can influence customer decisions about using a taxi.

But clearly, not all of the customer-related issues and concerns identified can necessarily be addressed by this taxi fare review.

We consider that this taxi fare review can address some customer dissatisfaction with taxi availability during peak periods. This can be done by improving incentives to drivers and operators to provide more taxis during this time through increasing taxi fares and changing taxi fare structures. Higher fares at particular times of the day may also encourage some customers to alter their travel times or use alternative transport modes, thereby improving waiting times for those people willing to pay the higher taxi fares. Likewise, a rebalancing of fares between the flagfall and distance rates can alter incentives around accepting short fares. Chapter 4 discusses these matters in more detail.

However, as discussed in this chapter, there are factors other than price that influence the supply and use of taxis, including behavioral factors, the reputation and image of taxi services, technology uptake and service innovation.

3 IS A FARE INCREASE REQUIRED?

KEY POINTS

Victorian taxi fares have not been adjusted since 2008. Submissions from operators, drivers and industry bodies called for an immediate increase in fares — although views on the extent of the increase vary significantly, from around 5 per cent to over 20 per cent.

We have estimated the appropriate increase in fares by taking account of changes in the cost of providing taxi services (the 'cost profile'), the new operator-driver revenue sharing arrangements and a risk based industry rate of return.

The cost profile for a representative metropolitan taxi is based on cost information provided by operators, our benchmarking of these costs and testing our findings with operators. A comparable cost profile is presented for 2008, when fares were last reviewed.

We have adopted a cautious approach in estimating operational costs — that is, where the data is uncertain, we have erred in favour of the industry.

Our role is not to ensure the viability of individual taxi businesses, but rather, to identify taxi fares that generate sufficient aggregate (industry) revenue to maintain a financially viable industry.

Based on this approach we have determined an overall fare increase of 12.5 per cent.

All dollar amounts presented throughout this chapter are nominal figures.

3.1 INTRODUCTION

Victorian taxi fares have not been adjusted since 2008. In assessing the case for a fare increase, we have been guided by the terms of reference and, in particular, the principles in section 1.4.

We have concluded that there is a case for a fare increase. This chapter begins by summarising stakeholder comments in relation to taxi industry costs and financial viability. It sets out our approach to estimate the cost of providing a taxi service to customers and an appropriate industry return in order to set industry revenue that is most consistent with the principles set out in section 1.4. It then sets out the details of the operator cost survey we undertook, how we selected cost profiles for comparison, and finally our assessment of industry returns and the operator share of revenue. It concludes by setting out our finding on the required increase in average fares.

3.2 STAKEHOLDER VIEWS ON TAXI COSTS

Through meetings and submissions, taxi licence holders, operators and drivers have presented their views and concerns in relation to the costs associated with operating a taxi and the financial viability of the industry. The key views expressed by stakeholders include concern for the vulnerable financial position of the industry, increasing costs of operating a taxi service and the lack of any fare adjustment since 2008.

Many stakeholders express concerns for the financial viability of the taxi industry and note that Victorian taxi fares have not been adjusted since 2008. For example, Brumby submits that *"we have not had a fare increase since 2008 and official inflation rates have averaged 2.5 per cent per annum or 12.5 per cent over 5 year period"*.[23] The Victorian Taxi Association (VTA) notes that the lack of a fare increase has left "*many industry stakeholders in a precarious financial position"*.[24] We have estimated the

[23] Brumby, D. 2013, *Submission to Call for Ideas paper*, 8 October, p. 1.

[24] Victorian Taxi Association 2013, *Submission to Call for Ideas paper*, 8 October, p. 5.

cumulative increase in the CPI (Melbourne, all groups) from June 2008 to March 2014 to be approximately 14.4 per cent.[25]

Similar views on the financial viability of the industry are expressed by the Australian Taxi Drivers Association (ATDA)[26], Gilliver (driver)[27] and Naqvi (driver).[28]

Several stakeholders state that costs are continually increasing. For example, Gilliver notes that *"all costs associated with operating a taxi have risen since 2008"*.[29] A similar view is presented by the VTA.[30]

More specifically, a number of submissions raise concerns in relation to the cost of fuel. Personalized Cabs[31] claims that the cost of fuel has risen dramatically, while an anonymous submitter notes that *"the fluctuation of LP gas is a major concern for all operators"*[33]. Discussions with taxi operators have revealed similar observations.

3.3 OUR OVERALL APPROACH TO SETTING REGULATED FARE LEVELS

In the past, taxi fare regulators have generally built up a 'cost stack' for a typical taxi provider and used this to guide any recommended fare increase. The cost stack has included: the operational costs of putting a vehicle on the road, assumptions about driver labour costs, an allowance for the cost of assigning (renting) a licence from a licence owner, and a presumed operator margin.

This approach has many shortcomings — particularly in light of the new regulatory environment with its greater emphasis on promoting a more competitive market. In market-oriented sectors, it makes little sense to simply set taxi fares year-after-year

[25] Based on an estimate for the March 2014 quarter CPI (Melbourne, all groups).

[26] Australian Taxi Drivers Association 2013, *Submission to Call for Ideas paper*, 30 September, p. 3.

[27] Gilliver, G. 2013, *Submission to Call for Ideas paper*, 12 September 2013, p. 2.

[28] Naqvi, S. 2013, *Submission to Call for Ideas paper*, p. 4.

[29] Gilliver submission, 12 September, p. 2.

[30] VTA submission, 8 October, p. 1.

[31] Personalized Cabs 2013, *Submission to Call for Ideas paper*, 11 September, p. 1.

[33] Anonymous 2013, *Submission to Call for Ideas paper*, 30 September, p. 2.

based on a static model of service delivery and costs. As competition takes hold, it will alter the traditional patterns of industry service offerings, supply chain relationships, the use of capital and the manner in which customers interact with the industry. All these altered relationships need to be taken into account when setting fares, however, they are complex and will only ever be partially visible to a regulator (despite its information gathering powers).

In this fare review, while we have necessarily considered the cost build up in determining the fare increase, we have also placed emphasis on observing the balance between supply and demand at particular times and in particular places. This is discussed in chapter 4.

In future, we intend on placing greater emphasis on market outcomes and less on detailed examination of costs.

3.4 OUR APPROACH TO ASSESSING FARE CHANGES IN THIS REVIEW

We have consulted widely with industry participants. The key theme arising from this consultation was concern about increasing cost pressures being faced by the industry and concern about the financial viability of their businesses. In response to these concerns, we have re-examined the costs associated with providing a taxi service.

In summary our approach is to:

- determine an estimated operating costs profile using information provided by the industry and test these costs against relevant benchmarks where appropriate
- determine an appropriate industry return as a percentage of total revenue, taking account of the nature of the industry and based on analysis of comparable businesses and
- allow for the 55:45 split of farebox revenue between drivers and operators as mandated by the Government.[34]

[34] The amended Transport Act 1983, s. 162L(2), which although not yet in force, is required to be considered under the terms of reference.

As explained below, in light of the inherent limitations in obtaining information on efficient costs and the risks of setting prices too low, we have exercised caution not to under-state costs. In other words, where there is some uncertainty, we have given the benefit of the doubt to operators when deciding which costs should flow through to passengers in the form of higher fares. This gives us confidence that our fare increase finding will support a financially viable industry.

3.4.1 FINANCIAL VIABILITY FOR THE INDUSTRY

Our role is not to ensure the viability of individual taxi businesses, but rather, to identify taxi fares that generate sufficient aggregate (industry) revenue to maintain a financially viable industry.[35]

Different operators will choose to operate their businesses in different ways. Each operator can choose when to put their taxi on the road, which vehicle and which fuel to use, whether to be an operator-driver or whether to bail the vehicle to an independent driver. Further, drivers will have different ways of seeking jobs when driving a shift. For all these reasons different operators can be expected to have different costs and revenues per taxi. While it is not possible to consider all of these possibilities, our analysis considers overall industry viability in accordance with the terms of reference and section 8A(1)(b) of the *Essential Services Commission Act 2001*.

For the purposes of our analysis and assessing a fare increase, we have considered the costs of an operator of a standard taxi in the metropolitan zone as the representative operator.

We assume the representative taxi operator is an operator who operates completely under bailment arrangements. (We note that operator-drivers will keep a larger proportion of the total farebox revenue than an operator who does not drive, as the operator-driver will receive the whole farebox revenue when they drive).

Our 'representative operator' is used as our benchmark for assessing the appropriate fare increase. We note that our assumed representative operator is not intended to reflect any individual operator's costs and revenues. The actual costs and revenues

[35] Principle 4 requires that fares should ensure adequate industry revenue to promote industry viability.

faced by individual operators may differ significantly from our representative operator. Our representative operator is based on the average findings of our operator survey.

3.4.2 THE COSTS OF OPERATING A TAXI

OPERATIONAL COSTS

At a given point in time, the costs of operating a taxi may be categorised as:

- Fixed costs — those costs that do not vary with the distance the taxi is driven. Fixed costs can include cost of the vehicle and fit-out, insurance costs and network fees. Over the longer term fixed costs will vary (for example, between fare reviews).
- Variable costs — those costs that vary with the distance the taxi is driven. Variable costs associated with operating a taxi include fuel (the more kilometres driven, the more fuel will be consumed) and vehicle maintenance (in general, maintenance costs will be related to the distance the vehicle travels).

Note, for the purposes of this review, we have adopted the distance driven by a taxi as a proxy for the quantum of service it provides to customers.

We have collected data on operational costs in various ways to ensure we obtained the most accurate information. We conducted an operator survey and tested the reasonableness of the survey data in discussions with operators, as well as against industry benchmarks where appropriate (for example, the cost of insurance).

INDUSTRY RETURN

Revenues from taxi services need to provide an appropriate rate of return, which is additional to covering the operational costs of providing taxi services. This rate of return should reflect the risks to an operator's financial investment in a taxi business. In light of the low physical capital associated with providing a taxi service, we express this rate of return as a percentage of revenue. We refer to this rate of return as the industry return.

In our 2008 fare review, the industry return was not estimated; broadly, it was covered by the assignment fee and an operator margin. In this taxi fare review, we have estimated an explicit rate of return on revenue for the industry as a whole. By doing so,

we are not making any implicit assumption about, nor endorsing, how industry returns are shared between industry participants. We believe this is the more relevant way to view industry returns. Moreover, this approach enables investment in taxi services to be assessed on a broadly similar basis to investment in comparable businesses. This is discussed further in section 3.6.

TREATMENT OF DRIVER EARNINGS

We have allowed for driver costs through recognising the 55:45 farebox split of revenues which has been mandated by the government. We have therefore not included driver costs as an operational cost.

Many taxi regulators treat payments to drivers as a cost to operators (as we did in our 2008 review). This approach treats the driver as though he/she is in an employment relationship with the taxi operator.

This is not an accurate reflection of the commercial realities in the industry, nor is it consistent with the reforms legislated by the Victorian Government in 2013.[36] Drivers other than operator-drivers are typically self-employed individuals who rent an asset (the taxi vehicle and licence) from an operator.

These arrangements see the driver earning revenue from providing services to passengers and paying the operator for the use of the vehicle and ancillary services such as network affiliation. In the era of cashless customer payments, it has proven more convenient for the operator to account for the revenues earned in the first instance and to then transfer a share of this revenue to the driver. This is merely a matter of commercial convenience. It does not alter the legal relationship between an operator and a driver. The driver is not in an employment, or an employment-like, relationship with the operator. The transfer of funds by an operator to a driver, therefore, does not represent a cost to the operator. For this reason, we do not include a component for 'driver costs' in our cost profile.

The new legislation clarifies this view beyond doubt by specifying that the farebox revenue must be shared between drivers and operators according to a 55:45 split,

[36] The *Transport Legislation Amendment (Foundation Taxi and Hire Car Reforms) Act 2013*.

respectively.[38] Our analysis accounts for these legislated farebox-sharing requirements.

3.5 OPERATIONAL COST PROFILE

Our three step process in establishing a representative operational cost profile for assessing the appropriate fare increase is as follows:

- taking the trimmed and weighted mean of the survey results for 2012-13 (section 3.5.2)
- making adjustments to the survey results based on our benchmarking and discussions with operators to establish an adjusted cost profile for 2012-13 (section 3.5.3) and
- projecting the adjusted cost profile to 2014, when we are determining our new fares (section 3.5.4).

We then compare the projected 2014 cost profile with 2008 to derive the estimated increase in operational costs for assessing the appropriate fare increase (section 3.5.5).

3.5.1 OPERATIONAL COST COMPONENTS

To gather information on the costs of operating a taxi, we issued a survey on 4 December 2013 to taxi operators licensed in the current metropolitan, outer suburban and urban taxi zones. As discussed in section 1.2, we did not survey operators in country zones.

The survey identified key operational cost components which include fixed and variable costs. Table 3.1 identifies and explains each operational cost component associated with providing a taxi service.

[38] The amended Transport Act 1983, section 162L(2) , which although not yet in force, is required to be considered under the terms of reference.

TABLE 3.1 SURVEY COST COMPONENTS (ANNUAL)

Cost component	Description
Operational costs	
Fuel	The total fuel costs incurred by the taxi.
Network	Fees associated with network affiliation. Operators receive access to services such as centralised booking and dispatch, as well as networked security alarms.
Insurance	Includes comprehensive, general liability and workers compensation. Excess charges are also included.
Registration and Transport Accident Charge	Vehicle registration including compulsory third party insurance (Transport Accident Charge).
Repairs and maintenance	Includes repairs and maintenance, tyres and cleaning costs, as well as cost of own time spent on repairs and maintenance, workshop costs and costs paid to other businesses for repair and maintenance work. This does not include costs covered by insurance, excess or costs covered by drivers.
Administration	Includes tasks related to operator role, including cost of own time, staff costs and costs paid to other businesses for administration (e.g. accountants).
Vehicle cost	Vehicle purchase or lease costs, including payments such as interest on bank loans, hire-purchase, lease and cash. Costs also include fit out costs.
Building and site costs	Site and building rental costs, including utilities, plus costs not captured in other categories.

INTER-RELATED COSTS

Many of an operator's cost components (and the factors that influence them) are related, such as fuel costs, repairs and maintenance, and vehicle costs. For example, the choice of vehicle type, age and fuel efficiency (which will determine vehicle costs) will affect fuel costs and repairs and maintenance costs. Conversely, the standard of repairs and maintenance of the vehicle influences fuel efficiency and fuel costs.

Therefore, a large part of the costs of operating a taxi are determined by operator decisions in relation to the trade-offs between different operational costs and capital investments.

While we have continued to consider each of these operational cost components individually, in future reviews we may choose to treat these costs in aggregate to better

address the relationship between operational costs, capital investment and operating decisions.

EFFECTS OF THE TAXI INDUSTRY REFORMS ON OPERATIONAL COSTS

We note that a number of taxi industry reforms are currently being implemented and they can be expected to impact on costs in the future. These reforms will support the emergence of new business models and new services. For now, there are some developments that can be assessed. For example, the removal of mandatory network affiliation may lead to a potential cost saving to operators. We will be monitoring these developments to understand as best we can the impact of the reforms on the costs and efficiency of operating a taxi service for our future fare reviews.

3.5.2 SURVEY RESULTS FOR 2012-13

We received 275 responses from taxi operators (there are approximately 2250 operators in the metropolitan, outer suburban and urban taxi zones). We received responses from 221 metropolitan operators, 16 outer suburban operators and 37 urban operators.[39]

We engaged the Centre for International Economics (CIE)[40] to analyse the results of the operator survey and develop cost profiles for taxis[41] operating in the metropolitan, outer suburban and urban zones. CIE's cost report is available on our website.

All costs presented exclude GST except where otherwise stated.

[39] One survey respondent did not specify a zone.

[40] CIE's recent experiences include assisting IPART in the recent taxi fare setting process in New South Wales, and assisting in the taxi fare setting process in Tasmania.

[41] We determined the cost profile for the average taxi to develop a more representative cost profile. To achieve this CIE trimmed the survey data by removing the lowest and highest 5 per cent of results for each cost item and 'weighted' the results by the number of taxis operated by each survey respondent.

Trimming removes outliers from our results (e.g. an operator may have only operated a taxi for part of the survey year) and 'weighting' ensures we capture the costs of the average taxi, rather than the average respondent. The cost profiles presented are trimmed and weighted means (or medians) are reported.

TABLE 3.2 SURVEY RESULTS: COST PROFILE BY ZONE FOR 2012-13 (EXCL GST)

For a standard taxi in the metropolitan, outer suburban and urban zones

Cost component	Metropolitan ($)	Outer Suburban ($)	Urban ($)
Fuel	19 320	15 000	14 539
Network	7 233	9 949	9 638
Insurance	3 392	3 714	3 142
Registration and Transport Accident Charge	1 866	1 866	1 866
Repairs and maintenance	9 864	11 028	10 229
Administration	6 090	7 447	7 795
Vehicle cost	6 458	7 424	7 271
Building and site costs	413	413	413
Total operational costs	**54 637**	**56 841**	**54 893**

The survey results suggest fuel costs are significantly higher in the metropolitan zone than in the outer suburban and urban zones, while most other operational cost components are lower (in particular network fees, repairs and maintenance, administration and vehicle costs). This may reflect goods and services being generally more expensive outside of the metropolitan area, with fuel costs being higher in the metropolitan zone due to the amount of kilometres travelled (rather than LPG prices, which are generally lower in the metropolitan area).

Overall, the survey results suggest that operational costs are slightly higher in the outer suburban zone than the metropolitan and urban zones (which are broadly similar). Given the low response rate from operators in the outer suburban and urban zones, we do not have sufficient confidence in the cost profiles estimates for these zones to rely on them. However, the response rate for the metropolitan zone supports a greater degree of confidence in the estimated cost profile and we have used this cost profile as an input for our new fares.

CHECK OF COST COMPONENTS BASED ON INDUSTRY QUOTES

As a check on some of the cost components (e.g. insurance and network fees), CIE directly contacted service providers and received industry quotes for these components. CIE noted that these quotes align relatively well to the survey responses.

We note that operators were not specifically surveyed on registration charges. These charges vary depending on the location (separated into identified low, medium and high risk zones) of the registered address associated with the taxi. CIE has included a simple average of the total charges for the three zones (obtained from the Transport Accident Commission website) in its cost profile results.

COMPARISON WITH WATs

For comparison purposes, CIE also prepared a cost profile for standard and wheelchair accessible taxis (WATs). Table 3.3 shows that the survey results indicate that standard taxis exhibit lower total costs per taxi than WATs. The main cost differences are due to higher vehicle costs and fuel costs. The survey findings are considered reasonable given the size of a WAT and fit-out requirements such as installation of a wheelchair lift.

TABLE 3.3 SURVEY RESULTS: COST PROFILE BY TAXI TYPE FOR 2012-13 (EXCL GST)
Combined metropolitan, outer suburban and urban survey results

Cost component	Standard ($)	WAT ($)
Fuel	18 869	19 517
Network	7 435	7 435
Insurance	3 381	3 605
Registration and Transport Accident Charge	1 866	1 866
Repairs and maintenance	9 910	9 910
Administration	6 217	6 217
Vehicle cost	6 521	10 539
Building and site costs	413	413
Total operational costs	**54 612**	**59 501**

3.5.3 ADJUSTMENTS TO THE SURVEY RESULTS FOR 2012-13

As a further check, we undertook a round of consultation with a number of operators to test and refine the survey results for metropolitan and urban zones, standard taxis and WATs.

Operators were presented with the cost profile relevant to their operations and were asked to comment on the reasonableness of each cost profile component in light of their own costs as well as their views on the range of these costs across the industry. Based on this testing, as well as the survey results, we made a number of adjustments to determine the final cost profile (table 3.4) for a representative standard metropolitan taxi in 2012-13.

The following section sets out a detailed discussion of the adjustments made to the cost profile for each cost component, drawing on our benchmarking and discussion with operators. Overall, we have been cautious in adjusting the cost profile and where there is some uncertainty, we have given the industry the benefit of the doubt.

Fuel

Consultation with operators and comparison with FUELtrac data indicates that the fuel estimates from the survey are on the high side. The operator survey was conducted in December 2013 during a spike in LPG prices and, following consultation with operators, we believe that survey responses largely reflect fuel prices at that point in time (rather than for 2012-13 overall). We have taken the survey results as the upper bound of the range for fuel costs. The lower bound of $18 459 was found by applying the change in LPG costs from June 2008 to December 2013[42] to the 2008 fuel cost estimate of $16 624 (see section 3.5.5). For consistency, both of these figures for fuel costs reflect December 2013 costs (as opposed to average 2012-13 costs for the other components in the cost profile).

Fuel costs and fuel volatility are discussed in more detail in section 5.1.

[42] Based on the 77 cents per litre (GST inclusive) we assumed in our 2008 review to the December 2013 FUELtrac data.

Network costs

The industry reforms will remove mandatory network affiliation. Based on our discussions, operators expect that affiliation will continue in the foreseeable future. Without further evidence that operators will no longer affiliate with an incumbent network, we believe it is appropriate to include those network costs in this review.

To take into account the beginning of the effects of the removal of mandatory affiliation, we have used the mean of the survey result as the upper bound of the range in network costs (with the 95 per cent confidence interval lower bound of the survey results as the lower bound of the range).

Insurance

CIE notes that the survey result for insurance may include public liability insurance and workers compensation insurance. The inclusion of these insurances by survey respondents is unclear and has been questioned by operators in our discussions.

Furthermore, the taxi industry reforms will require operators to take out compulsory comprehensive insurance to a standard defined by the Taxi Services Commission (TSC). The TSC has yet to define the level of required comprehensive insurance. We therefore consider current reported costs for comprehensive insurance.

CIE's cross-checking obtained quotes of $4332 in total for insurance costs. However this includes the Transport Accident Charge (which is a form of insurance, however it has already been included in the cost profile) but does not include an allowance for excess charges (which we estimate as $1364 GST exclusive)[43] or for workers compensation insurance payments (estimated by CIE as $971). Adjusting CIE's industry quotes to account for these components results in an insurance figure of $5017 — significantly higher than the survey results.

Given uncertainty around the inclusion of these insurances in the survey results we have again chosen to be cautious by taking the survey results of $3392 as the lower bound, with CIE's adjusted industry quote of $5017 as the upper bound.

[43] Based on CIE's figure of $1 000 including GST for the typical excess charge, and an allowance for 1.5 insurance claims per year as identified by operators in our discussions.

We note that we have allowed for 1.5 excess charges, which is the average number of insurance claims reported to us by taxi operators in our discussions. In the time available, we have been unable to verify this claim. For now, we have allowed for these 1.5 excess claims in our cost profile but we will seek to review this item in more detail for our next review.

Registration and Transport Accident Charge

The Transport Accident Charge (TAC) charge varies by location (with different charges for high, medium and low risk zones). As noted, CIE's value is based on a simple average of the TAC charges for the three zones.

We also note that CIE has assumed that GST is paid on the $238 registration fee, and has subtracted an amount from the registration fee in calculating a GST exclusive figure for the total registration and TAC costs. However, the registration fee is GST exempt. Adjusted to treat GST correctly, CIE's estimate is consistent with the total registration and TAC costs for the medium risk zone ($1886).

In our discussions, a number of operators identified that they pay the TAC charge for the high risk zone (total registration and TAC costs of $2638). Based on this, we have decided to use the total registration and TAC costs for the medium and high risk zones as the range for registration and TAC costs.

Repairs and maintenance and administration

Operators may choose to pay other businesses to undertake repairs and maintenance, or may choose to have the repairs and maintenance undertaken by their own staff. The same applies also for administration tasks. Our survey asked for these costs directly.

Alternatively, an operator may choose to undertake repairs and maintenance or administration themselves. Our survey asked operators for the average hours per week spent by the operator on repairs and maintenance and on administration.

It is not clear whether operators have already accounted for their own time when reporting their costs. Therefore, including an estimate for own time costs in repairs and maintenance and administration may represent double counting. Taking a cautious approach, we have chosen to include own time costs for now. Nonetheless, we will look into this item in more detail before our next review.

We note that the overall effect on our estimates of including or excluding own time costs is small when it is included in both cost profiles (that is, 2008 as the base year and 2014 as the final target year).

Vehicle costs

To confirm the survey results, CIE estimated an annualised vehicle cost based on industry quotes for a 2011 Ford Falcon (including fit-out) with an average productive life of 4.5 years and assumed real cost of capital of 5.7 per cent. This results in an annualised cost of $5113 (in nominal terms), which is lower than the survey result for metropolitan taxis. In testing the cost profile with operators, operators suggested that the survey results were accurate, or in fact possibly on the low side (with some operators suggesting that the full cost of a vehicle including fit-out could be as high as $30 000 including GST – representing an annual vehicle cost of $6840 excluding GST).

On balance, we have decided to adopt the survey results with a 95 per cent confidence interval from the survey as the range. We note that the lower bound of this range is higher than CIE's estimate of $5113 and the upper bound is also higher than the maximum suggested by operators in our discussions ($6840). We have again been cautious in favour of operators.

Adjusted cost profile for 2012-13

Table 3.4 sets out our final adjusted cost profile for a representative standard metropolitan taxi in 2012-13.

Each cost component shown in table 3.4 (except where otherwise specified) is presented as a range that represents a 95 per cent confidence interval based on the survey results.

TABLE 3.4 ADJUSTED COST PROFILE FOR 2012-13 (EXCL GST)
Adjusted survey results for a standard metropolitan taxi

Cost component	Adjusted survey results ($)
Fuel	18 459 - 19 320
Network	6 857 - 7 233
Insurance	3 392 - 5 017
Registration and Transport Accident Charge	1 886 - 2 440
Repairs and maintenance	8 512 - 11 217
Administration	4 836 - 7 344
Vehicle cost	5 942 - 6 975
Building and site costs	413
Total operational costs	**50 297 - 59 959**

3.5.4 PROJECTING THE ADJUSTED SURVEY RESULTS TO 2014

Our final step in establishing the representative cost profile for a taxi is to project our adjusted 2012-13 profile to 2014, which will form the basis for setting our new fares.

Escalation of the cost profile was based on applying the change in the relevant CPI group for each cost category from the December 2012 (the midpoint of our survey period) to the March 2014 quarter (which we have estimated from the latest December 2013 quarter results using the trend in each CPI group). The one exception is for fuel, which we have escalated using the change from December 2013[44] to the latest monthly average observed LPG price.[45]

[44] As discussed above, the fuel costs included in the 2012-13 cost profile reflect costs as at December 2013.

[45] RACV 2014, *Historical LPG prices*, Accessed at www.racv.com.au/wps/wcm/connect/racv/Internet/primary/my+car/advice+_+information/fuel/petrol+prices/lpg/historical+lpg+prices on 20 March 2014.

Table 3.5 sets out our final cost profile for a representative standard metropolitan taxi in 2014.

TABLE 3.5 REPRESENTATIVE COST PROFILE FOR 2014 (EXCL GST)
Cost profile for a standard metropolitan taxi

Cost component	2014 ($)
Fuel	18 718 - 19 591
Network	7 062 - 7 450
Insurance	3 415 - 5 051
Registration and Transport Accident Charge	4 981 - 7 564
Repairs and maintenance	8 532 - 11 243
Administration	5 406 - 7 989
Vehicle cost	5 956 - 6 991
Building and site costs	425
Total operational costs	**50 988 - 60 772**

3.5.5 OPERATIONAL COST PROFILE COMPARISON

Our methodology for determining whether a fare increase is appropriate (and the size of the required fare increase), involves understanding the change in the cost profile of operating a taxi since 2008 (when fares were last adjusted). We have used the survey results to arrive at a cost profile for a representative taxi in 2014. We have also returned to the survey data from our previous fare review in 2008 to establish a cost profile for 2008 that is consistent and comparable with our 2014 cost profile.

This cost profile differs from the one we used to determine the fare increase in 2008 as it has been adjusted to ensure consistency with how we define the different cost components in our cost profile for 2014.

The key adjustments we made in deriving the new cost profile for consistency include:

- type and region of taxis — our previous 2008 cost profile was for all zones in Victoria and it did not distinguish between different types of taxis. The revised cost profile is restricted to standard metropolitan taxis.

- measure of average — we previously used the median results from the survey data (the data was not trimmed to remove outliers, nor weighted to account for respondents operating more than one taxi). We are now using the trimmed weighted mean, which should provide more representative results.[50]
- cost components and estimation — the cost components we used in 2008 were not entirely consistent with our current cost components (for example, insurance and registration were included together as one cost component, and own time costs were not included in administration and repairs and maintenance). We also estimated certain cost components using the median results for cost factors, rather than estimating the average for the cost component (by estimating the total cost component for each operator).[51] The adjusted 2008 cost profile uses consistent cost components and methodology. (However, we have combined administration and building and site costs in the 2014 cost profile, rather than attempting to separate the two as in the 2008 cost profile).

While we have generally used the trimmed weighted mean of the survey results in developing the cost components, we note that for network costs in 2008 we used the adjusted median. We adopted this approach to remove the effect of questionable survey responses which significantly skewed the survey results for this cost component.

Table 3.6 presents the final 2008 and 2014 cost profiles we have developed for the representative standard metropolitan taxi.[52]

[50] See CIE report for further discussion.

[51] For example, in 2008, fuel costs were estimated by multiplying the median number of kilometres, the median fuel efficiency and the median LPG price. A better estimate for the average fuel costs is to multiply the number of kilometres, fuel efficiency and LPG price for each operator, and take the average of these results.

[52] When we refer to 2014 costs, this relates to March 2014 costs.

TABLE 3.6 COMPARISON OF 2008 AND 2014 REPRESENTAIVE COST PROFILES (EXCL GST)
Cost profile for a standard metropolitan taxi

Cost component	2008 ($)	2014 ($)
Fuel	16 624	18 718 - 19 591
Network	6 223	7 062 - 7 450
Insurance	2 285	3 415 - 5 051
Registration (including TAC Charge)	2 168	1 899 - 2 457
Repairs and maintenance	8 842	8 532 - 11 243
Administration/office	8 597	5 406 - 7 989
Vehicle cost	5 596	5 956 - 6 991
Total operational costs	**50 335**	**50 988 - 60 772**

Given the caution we have exercised to avoid underestimating the ranges for the 2014 cost components shown in table 3.6, we believe that it is reasonable to adopt the mid-point of the total costs as our assumed profile for the representative standard metropolitan taxi in March 2014. That is, we assume that the operational costs associated with providing a taxi in 2014 are $55 880. This represents an 11.0 per cent increase since 2008.

Finally, we have also decided to apply an additional 1 per cent to the total cost profile for 2014 as a buffer against any omissions, biases or errors due to the limited time we have had to undertake this review. This brings the total operational cost factored into our modelling for 2014 to $56 439.

We note that the 2014 fuel cost range implies an LPG price of 87 to 91 cents per litre (including GST) – significantly above current LPG prices.[53]

[53] Approximately 78 to 80 cpl, as per RACV 2014, LPG fuel prices, Accessed at www.racv.com.au/wps/wcm/connect/racv/Internet/Primary/my+car/advice+_+information/fuel/petrol+prices/LPG on 20 March 2014.

3.6 INDUSTRY RETURNS

The second part of our approach to determining an appropriate fare increase is to determine an appropriate industry rate of return in accordance with the principles outlined in section 1.4. This provides for a return for the industry once direct costs of service provision (i.e. operational costs) have been covered. Operators must recover operational costs and receive a return if they are to re-invest their capital in taxi businesses (in particular to fund innovation and better services). These returns must also compensate the industry for the risks that it must bear. These risks include: demand variability, changes in input costs, operating risks and regulatory risk. These industry returns also provide greater scope for operators to offer discounts below the regulated maximum fares in order to attract higher patronage.

In this fare review, we have estimated a total industry return on revenue that we believe is reasonable given the risks associated with the taxi industry. We note that the industry returns can be shared by the industry in different ways. Whether they do so, and how the industry return might be divided amongst industry participants, is not the fare regulator's concern, so long as the total return is sufficient to ensure that the supply of taxi services meets passenger demand.

By providing a return for the industry as a whole, we are not making any assumption about how those funds are shared between different industry participants or whether industry participants choose to re-invest those funds in the industry. It is not the role of the regulator to second guess such decisions. Moreover, by adopting this approach in our pricing framework, we put an end to the well-known 'circularity' problem in which higher fares have led to higher assignment fees which, in turn, have led to higher fares.[54]

3.6.1 ESTIMATING INDUSTRY RETURNS

We engaged consultants RSM Bird Cameron to provide advice on a reasonable level of industry returns. The report by RSM Bird Cameron is available on our website.

[54] The 'circularity' problem is discussed in detail in ESC 2008 (p. 102) and the TII draft report, (p.464). As a consequence of the approach taken by the ESC in its efforts to avoid the circularity problem in its last review, it implicitly applied an industry rate of return of 18.1 per cent. In light of our more recent work, this earlier rate of return was excessive.

To determine an appropriate range of estimates for the taxi industry, RSM Bird Cameron used a benchmarking approach to assess returns associated with businesses of similar size, operational characteristics and risk profiles, but which are considered to be highly competitive. Consideration was given to businesses in the transport and retail industries, and included both privately held entities and corporations listed on the stock exchange.[55]

Based on the differences in risk profiles and structure of the comparable small businesses, RSM Bird Cameron provided a range for the rate of return for the taxi industry as shown in table 3.7. These estimates are based on comparisons with a range of industries with similar capital investment and risk profiles to the taxi industry, including courier and delivery services, passenger car rental and hiring, urban bus and tramway transport, rail passenger transport, water passenger transport, supermarket and grocery stores, newspaper and book retailing and fast food services. Of course, no two industries are identical, but by looking at numerous other businesses, each of which shares at least some characteristics with the taxi industry, we were able to identify a range within which the taxi industry lies.

RSM Bird Cameron used the EBIT margin as a measure of return, which is calculated as a company's total sales revenue divided by earnings before interest and tax. This return is not directly comparable to a benchmark taxi operator's weighted average cost of capital, which is the standard methodology to derive a suitable return that we and other regulators use in regulated industries such as water, electricity and gas. However, because we can benchmark the return on sales against firms with a similar capital structure and risks in more competitive sectors, we consider that this return measure can provide a suitable regulated rate of return.

Based on assessment of the risk profile of the taxi industry relative to other comparable industries and the EBIT margins of these comparable industries, RSM Bird Cameron recommended that an appropriate EBIT margin lies within a range of between 8 to 15 per cent.

[55] While small listed entities are larger than the businesses of taxi operators, consideration of these entities provided further guidance on rates of return. We were mindful not to focus too much on the results for listed entities.

TABLE 3.7 RECOMMENDED RANGE FOR INDUSTRY RATE OF RETURN

Consultant	Lower bound (%)	Upper bound (%)
RSM Bird Cameron — EBIT margin	8	15

This advice from RSM Bird Cameron provides a broad range from which to select an appropriate return. We have used a two-step process in selecting an appropriate industry rate of return from the recommended range.

First we considered the appropriate rate of return by examining the risk profile of the taxi industry against the industry benchmarks. We note that taxi businesses may be more or less risky than other small businesses depending on the characteristic we consider. For example, taxi businesses may be more risky than retail businesses in terms of regulatory risk, while less risky than retail businesses in terms of stock management risk and price uncertainty.

Our view is that the balance of risk factors supports a rate of return at the top of the range for now. We consider that a rate of return at the higher end of the range at this time provides the industry with financial 'headroom', namely, an opportunity for the industry to adjust to the advent of new technologies and new service models.

Second, we considered the appropriate rate of return given the adjustments we have adopted in arriving at our representative operational cost profile, which accounts for some of the above risks. As discussed in the previous section, in light of the inherent uncertainty in estimating the rate of return, we have adopted a cautious approach to estimating operating costs and also provided an additional 1 per cent buffer on the total profile. We therefore consider it is reasonable not to choose a rate of return at the top of the estimated range. We therefore decided to make a modest downwards adjustment of 0.5 per cent to the estimated rate of return.

For these reasons, we have chosen to use 14.5 per cent (0.5 per cent less than the upper bound estimate) as the estimated industry rate of return at this time.[56] This rate

[56] We are satisfied that the overall industry return, in the first instance, should cover the value of the new licence permits and a reasonable operator margin.

of return is a benchmark only. The actual rate of return earned will vary according to the business models utilised by the taxi businesses and the efficiency of their operators (with more efficient businesses having the opportunity to earn higher rates of return).

In our next fare review, we will reassess the appropriateness of our assumption placing the industry rate of return at the high end of the range. We will review whether this amount of headroom is still required once the opportunities created by the reform program have more clearly manifested themselves, and we have better measures of service availability and performance.

3.7 OPERATOR SHARE OF REVENUE

While the majority of drivers are on a 50:50 revenue sharing arrangement with operators, the final share of total farebox revenue that operators currently receive is affected by the late night surcharge (which goes in full to the driver). Based on the 2012 trip data, we estimate that approximately 19 per cent of all fares attract the surcharge.

We have also used the trip data to estimate that, on average, an operator under a 50:50 bailment arrangement would receive 48.7 per cent of total farebox revenue, once we account for the fares that would attract the late night surcharge. We have therefore used 48.7 per cent (rather than 50 per cent) as the average operator share of revenue for 2008.

Under the new driver agreements (to be implemented on 1 July 2014) with the mandated 55:45 split of fare revenue, operators' share of revenue will be 45 per cent of the total farebox revenue. In accordance with the terms of reference for this review, our fare estimates are based on this new revenue sharing arrangement.

3.8 HOW MUCH FARES SHOULD GO UP BY?

Bringing together the cost profile, the industry return and operator share, we are able to determine the fare increase required to generate a level of industry revenue that is

sufficient to ensure the financial viability of the taxi industry at the level of service demanded by taxi users.

The industry revenue (*R*) is given by the sum of the operational costs (*C*), the industry return (*rR*) and the driver share of the farebox revenue (*(1-s)R*):

$$R = C + rR + (1 - s)R$$

where:

R = fare revenue (fares times quantity of trips or trip kilometres)

C = total operational costs (the cost profile)

r = industry rate of return on revenue, and

s = operator share of fare revenue.

The above formula can be rearranged to state this relationship between the relevant parameters as:

$$R = \frac{C}{s - r}$$

If we hold the level of demand fixed between the two-periods[57], then using this relationship, we are able to compare the change in the cost profile of operating a taxi since 2008 (when fares were last adjusted) to determine the required percentage increase in fares. The level of fare increase will be the same as the required revenue increase (because the quantity is fixed). The fare increase is then determined by the following formula:

$$\left(\frac{R_1}{R_0}\right) = \left(\frac{C_1}{C_0}\right) \times \left(\frac{s_0 - r_0}{s_1 - r_1}\right)$$

where:

$$\left(\frac{C_1}{C_0}\right) = cost\ ratio, \qquad \left(\frac{s_0 - r_0}{s_1 - r_1}\right) = revenue\ sharing\ ratio$$

[57] If the level of demand is not fixed, then we could also take this into account in the required fare change by using an estimate of demand elasticity. How we take this into account will depend on how we balance up the consumer demand for taxi availability compared to lower taxi fares.

and:

$$fare\ increase\ (\%) = \left(\frac{R_1}{R_0} - 1\right) \times 100$$

Using this methodology, we are able to determine the industry revenue required to ensure the financial viability of the taxi.

DETERMINING THE FARE INCREASE

Table 3.8 sets out the application of the fare increase formula and the resulting fare increase implied by the changes in the cost profiles and revenue sharing ratio. Applying the fare increase equation to these figures gives a fare increase of 12.5 per cent.

TABLE 3.8 DETERMINING THE FARE INCREASE
Applying the fare increase formula

		Lower bound	Upper bound	Finding
Operational cost profile (C_0)	2008	$50 335		$50 335
Operational cost profile (C_1)	2014	$50 988	$60 772	$56 439
Industry return (r_1)	2014	8%	15%	14.5%
2008 revenue sharing ($s_0 - r_0$)	2008	30.6%		30.6%
2014 revenue sharing ($s_1 - r_1$)	2014	30.5%		30.5%
Cost ratio $\left(\frac{C_1}{C_0}\right)$				1.1213
Revenue sharing ratio $\left(\frac{s_0 - r_0}{s_1 - r_1}\right)$				1.0033
Implied fare increase				12.5%

The combined effect of this increase in fares and the new revenue sharing arrangements (55:45) will see drivers' earnings increase by 20.6 per cent.

We are also of the view that the taxi industry reforms currently being implemented will promote innovation in the industry, allowing it to expand the market and increase demand for, and revenue from, taxi services. As the industry innovates, it should be able to generate earnings even greater than those we have anticipated.

4 SETTING A NEW FARE STRUCTURE

KEY POINTS

We take a cautious approach to rebalancing fares in response to short fare refusals as there is no detailed information on the extent and nature of short fare refusals. There is, however, a strong industry belief that short fare refusal is a bigger problem than refusal of longer trips. Fare refusal is also a major source of complaints to the Taxi Services Commission.

The large number of taxis queuing at Melbourne Airport does not materially impact taxi availability for non-airport trips (although it may be wasteful to have large numbers of taxis idle at the airport). Our fare rebalancing is therefore not specifically aimed at solving the airport queuing 'problem'.

Considering the balance of supply and demand for taxis throughout the week and incentives to provide taxi services at different times, we have developed a new fare structure which includes three different tariff timings (compared to the current two):

- a 'day' fare period (9am to 5pm)
- an 'overnight' fare period (5pm to 9am, excluding the 'peak' fare period) and
- a 'peak' fare period (10pm to 4am on Friday and Saturday nights).

In accordance with the finding of the Taxi Industry Inquiry and the new legislation provisions, the existing 50 per cent surcharge for High Occupancy Vehicle trips (the existing tariffs 3 and 4) is to be replaced with a flat fee of $14 per high occupancy trip.

4.1 INTRODUCTION

As part of this review, the terms of reference require us to have regard to a number of issues in assessing the current fare structures. These issues include, short trip refusals, airport queuing, peak and off peak periods, High Occupancy Vehicle (HOVs) tariffs and the multiple hire tariff.

In this chapter, we analyse these issues using the trip data collected by the Taxi Services Commission (TSC) and other sources of information (for example, stakeholder views, TSC complaints data and results from our driver and operator surveys) to ascertain whether current fare structures need to change, and if so, how.

4.2 FARE STRUCTURE

Fare structure refers to the various components that make up the fare charged to passengers and the time periods in which fares apply. In Victoria, taxi fares are made up of a combination of a fixed fee component (flagfall), a distance rate component and a waiting time rate which applies when the taxi is travelling at less than 21 kilometres per hour. Separate fares apply during 'regular' hours (tariffs 1 and 3) and late at night (tariffs 2 and 4, which provide a 20 per cent surcharge on the regular distance and waiting time rates). There are also separate tariffs for conventional (or 'standard') taxis and HOV — the HOV tariff is 150 per cent of the distance and waiting time rates for a standard taxi.

4.2.1 TERMS OF REFERENCE

The terms of reference require us to consider the Victorian Government's response to the final recommendations of the Taxi Industry Inquiry (TII) and certain provisions under the amended Transport Act. Relevant tariff structure matters we have been required to consider are:

- **short fare refusals** — taxi drivers refusing to take passengers who only want to travel a short distance
- **airport queuing** — the large number of taxis that queue at the airport at certain times

- **peak and off peak fares** — how fares should vary at different times of the day and week depending on the level of demand
- **HOV tariffs** — alternatives to the existing tariff 3 and tariff 4, which provide a 50 per cent surcharge on the distance and waiting time rates for trips involving 5 or more passengers or when a HOV has been specifically requested by a non-wheelchair customer and
- **the multiple hire tariff** — simplification of the multiple hire fare to provide operators with increased opportunity to offer new and innovative services.

4.2.2 FACTORS WE CONSIDERED IN SETTING THE FARE STRUCTURE

Our assessment of fare structures has considered: the economics of taxi provision and use, accepted regulatory practices for fare setting, the need for regulated tariffs to be understandable for customers, available metering technology, and practical limitations due to lack of information and the relatively short review period.

Setting an appropriate fare structure is important because it affects the decisions of various participants in the provision of taxi services and the travel decisions of customers. Fare structures may also affect the competitiveness of taxi services against alternative forms of transport.

Optimally, tariffs should be set to recover efficient industry costs in a way that maximises society's welfare. Mostly, this requires fares to reflect the additional costs of supplying that service. It also requires taking into account how sensitive passengers are to changes in taxi fares (demand conditions). For example, an optimal structure would have higher tariffs for those parts of the market least likely to lower their consumption because of the higher prices, with lower tariffs for other parts of the market where demand is more sensitive to price. Of course, informational constraints limit the ability to forecast exactly how industry providers and passengers will respond to altered fare structures.

Another approach is a cost attribution approach whereby a regulator may attempt to break taxi costs down into attributable and unattributable components (or into fixed and variable components) and then allow recovery of the attributable (or variable) costs, and allocate the unattributable (or fixed) costs to reflect costs and demand conditions in

the market. This approach faces significant challenges in appropriately allocating costs, given each taxi trip incurs its own unique set of costs in that each trip occurs at a particular time, and has a given origin and destination. We find that this approach can help to provide some guidance on fare structures, but ultimately involves significant subjective judgments to be made.

Regulated tariffs should be reasonable, simple and understandable to customers. There may be benefits from more sophisticated tariff structures as the industry adapts to a new competitive environment with new service offerings, but such decisions are arguably better made by the taxi industry in response to changing customer preferences.

Tariff structures must be capable of being implemented with the available metering technology. While metering technology may become more sophisticated in the future, we must set fares within the context of the existing metering technology. There is no value in developing a fare structure if it cannot be implemented on current meters.

There are a number of meter types currently in use in Victoria. All of the meters can handle fare structures based on flagfall, distance and waiting time rates, and can be programmed for more complex fare structures, for example, declining or inclining block tariffs (an inclining block tariff has been implemented for country fares in NSW).

The key factor limiting potential tariff structures is the memory capacity of some of the meters, particularly older meters. The memory of some of these models means the meter is limited to 'nine tariff slots'.[58]

4.2.3 OUR APPROACH

While we do not have the information to set optimal tariffs, we can draw conclusions about the balance between supply and demand at particular times and in particular places by observing taxi queuing. Where there are more taxis than passengers, there will be queues of taxis waiting for a passenger, and where there are few taxis, there will

[58] These meters have memory capacity to store 18 tariffs. However, in practice they are limited to nine because future fare changes need to be programmed into the meter *before* they actually take effect. So, for example, when the Minister determines new fares following our review, meters will be reprogrammed to include the new fares, along with current fares. This allows for a smooth transition when the new fares come into effect. The new fares in the meter will be 'time stamped' to come into operation at the time specified by the Minister.

be queues of passengers waiting for a taxi. Where these queues are very long, they give us a sense that there is some level of market disequilibrium (or inefficiency) that might be mitigated by changes in fare structure. This is equally applicable to rank, hail and pre-booked submarkets.

Long queues of taxis can be addressed by reducing the returns to journeys being taken by passengers in those places or at those times. Equally, long queues of passengers can be addressed by increasing the returns to journeys taken by drivers in those places or at those times. Setting fares along those lines, to the extent possible, will result in a better matching of supply with demand. This will potentially increase the total number of trips taken (due to lower waiting times) and increase industry earnings.

Other data may also be used to infer situations of poor supply and demand balance. For example, where taxi utilisation is very high, it would suggest that there are likely to be passengers waiting longer for a taxi than would otherwise be the case. This situation could be improved by enticing more vehicles onto the road by increasing returns to drivers.

The principle approach we have adopted in this fare review has been to assess the evidence from trip data and other information regarding the supply and demand for taxi trips at different times and in different places. By reviewing this data, we have sought to establish whether there are material distortions or mismatches of demand for trips and the supply of taxis throughout the day, the week, geographically or for particular services.

This analysis of market conditions gives us the basis for considering changes to the fare structure in a way that provides clearer incentives that promote a better balance between the supply and demand for taxis.

Where feasible, we have also used the data to understand driver decisions. By choosing to wait at a particular rank, or seek out street hail trips, or accept or reject particular trips, drivers are making an assessment of their expected returns from different trips. For example, when drivers choose to wait at the airport, they are making an assessment of the likely returns from an airport trip, and the ease of finding a trip after that. The driver compares the expected outcomes from this choice with the expected return from the alternative choice of leaving the airport without a passenger and seeking fares elsewhere.

In addition to consideration of the trip data, we consider how incentives to provide taxi services (by the operator and driver) may vary depending on time of day and day of the week.

Overall, this approach gives us guidance as to the direction of any changes to the present fare structure.

4.3 A SUMMARY OF RELEVANT MATTERS

This section discusses a number of matters relevant to the design of the tariff structure. Our considerations have been informed by stakeholder views, our own consultation and analysis of the data, and the issues and findings of the TII. A summary of the relevant matters is presented in table 4.1.

Sections 4.4 to 4.8 set out the detailed assessment of each matter.

Broader options for future fare reform are explored in chapter 8.

TABLE 4.1 TARIFF STRUCTURE MATTERS

Matter	Description	Commission findings
Short fare refusals	Concerns that short trips are refused by some drivers, who are seeking longer trips and therefore higher fares.	There is limited data on the extent and nature of short fare refusals. Longer trips can also be refused. Short fare refusals appear to be a bigger problem than refusals of longer trips.

Continued next page

TABLE 4.1 (CONTINUED)

Matter	Description	Commission findings
Airport queuing	At certain times of the day a large number of taxis may be queuing at Melbourne Airport. The TII has stated this is impacting taxi availability in other parts of Melbourne, and particularly the availability of HOV taxis for wheelchair work.	Main reason drivers queue – they've taken a passenger to the airport. Large queues follow the peak in trips to the airport. Large queues do not affect waiting times for users of standard taxis in other parts of Melbourne.
Peak and off peak fares	At what level should fares be set at different times of the day and week to account for variations in demand for taxi services?	Taxis on the road and trips taken vary throughout the day and week. Trips taken and taxi occupancy rates: • are very high on Fri and Sat nights • are relatively steady during weekdays • are lowest early morning weekdays.
HOV fares	How should fares be set for HOV taxis to account for their higher costs, and how will this influence driver incentives for different trip lengths?	HOV drivers are: • more likely than standard taxis to drive empty to the airport • less likely to leave the airport empty to find another fare.
Multiple hire	How should fares be structured to encourage use of the multiple hire fare?	The multiple hire fare is rarely used. Multiple hire and share-ride trips present alternative options for the industry to promote better use of taxis.

4.4 SHORT FARE REFUSALS

Short fare refusals refer to instances when a taxi driver refuses to take a passenger because of the short length of the trip. Trip refusals are a more immediate concern for rank and hail passengers.[59]

The TII identified short fare refusals as a key issue. It received information from a range of organisations about taxi users' experiences with short fare refusals[60] and stated that "*one of the strongest and most consistent criticisms from passengers is short fare refusals*".[61] Latitude Insights conducted a survey for the TII, which indicated 38 per cent of taxi users had experienced trip refusal, and more specifically 30 per cent had experienced short trip refusal.[62]

The TII also noted community group concerns, for example, Travellers Aid (a not-for-profit organisation assisting disabled and elderly travellers) stated that:

> *On many occasions taxi drivers have refused many of the people we assist access to service on the basis short fares. They actually ask where the individual is travelling before allowing them in the vehicle.*[63]

The TII recommended increasing the flagfall and reducing the distance rate to address short fare refusals, though provided no guidance on how fares ought to be rebalanced in this way.

4.4.1 STAKEHOLDER VIEWS

We received a number of submissions on short fare refusals. For example, Brumby states that "*the biggest scourge of the current operating system is short fare refusal*".[64]

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59 Drivers can refuse short trips by refusing a network booking, however since another taxi will eventually accept the job, this does not represent a significant inconvenience for the passenger. We have heard of cases where a driver accepts a network booking but on the way to collecting the passenger accepts a rank or hail job on the grounds that it is more profitable. The original customer is left stranded waiting for a taxi that never arrives.

60 Taxi Industry Inquiry 2012, Draft report, May, p. 49.

61 Taxi Industry Inquiry 2012, Draft report, May, p. 476.

62 Latitude Insights 2012, *Consumer Detriment Research*, Final report, p. 27.

63 Travellers Aid 2011, *Submission to Taxi Industry Inquiry*, 1 July, p. 4.

64 Brumby submission, 8 October, p. 1.

Similarly, an anonymous submitter argues that "*short fare refusal is a huge problem and is probably the number one taxi issue at the moment*".[65]

Some stakeholders submit that short fare refusals arise due to the current fare structure. Gupta states most fare refusals are because of an "*incorrect fare structure where large fares are too lucrative while short fares are financially unviable*".[66]

Vratsidis states:

> *With today's current payment structure … you simply are encouraging taxi cab drivers to avoid short fares in high volumes of traffic and stay vacant awaiting longer fares often involving travelling on the freeways.*[67]

To address short fare refusals, an anonymous submitter[68] and Smith[69] suggest increasing the flagfall to reward the driver for a short fare. The Victorian Taxi Association (VTA) emphasises that "*the new fare model should carefully consider the incentives that can be created to overcome current difficulties in the industry, such as short-fare refusal*", and states "*while no evidence exists on the prevalence of short fare refusal, it is an issue which presents a challenge for the industry*".[70]

While it appears that short fare refusal is a key issue for the industry, some stakeholders indicate that longer trips can also be refused and furthermore that some drivers prefer short trips, for example, during late night, peak demand periods. Geelong Taxi Network suggests that although many taxi drivers perceive a long trip as lucrative, numerous short trips can be just as, if not more, profitable.[71]

A similar view was given by a Melbourne operator, who states it is always preferable to keep the meter "*ticking over*" with short fare jobs which "*fill in the gaps*" and can lead to longer fares. This operator is opposed to a minimum fare to address short fare refusals,

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65 Anonymous submission, 3 October, p. 2.

66 Gupta submission, 13 September, p. 1.

67 Vratsidis submission, 6 October, p.1.

68 Anonymous submission, 30 September, p. 2.

69 Smith submission, 3 October, p. 1.

70 Victorian Taxi Association submission, 8 October, pp. 4 and 6.

71 Geelong Taxi Network submission, 8 October, p. 3.

as this would particularly affect the elderly and people with a disability. It was also put to us that a successful taxi business can be based on short fare trips.

STAKEHOLDER VIEWS ON MINIMUM FARES

Minimum fares have been raised by industry participants, particularly operators and drivers, as a solution to short fare refusals. The VTA submitted:

> *one approach, which is widely supported by the industry, is the introduction of a guaranteed minimum taxi fare … a minimum fare could be managed through a significantly increased flagfall rate which includes a time and/or distance limit included.*[72]

While many operators and drivers support a minimum fare, opinions differ as to the number of kilometres that should be included. Brumby submits that to address short fare refusals the flagfall should be a minimum of $10 including the first 4 kilometres.[73] Similarly, Cab Fare proposes the use of "*higher postage stamp pricing (e.g. a flagfall of $10 which includes a 5 kilometre allowance)*".[74] Gilliver[75] and Smith[76] also suggest a $10 flagfall, but have different views on included kilometres.

Thomas (driver) suggests that the flagfall should be (inversely) related to the distance, with the flagfall starting at $10 and decreasing with each 2.5 kilometres travelled up to 25km (giving a minimum flagfall of $5).[77]

Gupta[78] and Inclusion Melbourne[79] argue against an increase in the flagfall as it may have an adverse effect on small jobs, as well as elderly and disabled people who depend upon taxis for their outings.

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72 VTA submission, 8 October, p. 6.

73 Brumby submission, 8 October, p. 1.

74 Cab Fare submission, 27 September, p. 2. Postage stamp pricing involves fixed prices for trips within a given distance.

75 Gilliver submission, 12 September, p. 2.

76 Smith submission, 3 October, p. 1.

77 Thomas submission, 14 October, p. 1.

78 Gupta submission, 13 September, p. 2.

79 Inclusion Melbourne submission, 31 October, p. 2.

The VTA also considers a minimum fare for trips originating at the airport, including a certain time and/or distance allowance.[80] Naqvi proposes that there should be a minimum fare for trips originating at the airport of $25 within a 5 kilometre radius and $10 within a 1 kilometre radius.[81]

4.4.2 COMMISSION'S ANALYSIS

While the TII and stakeholders raise short fare refusals as a major concern, the true extent and nature of short fare refusals remains unknown. In considering fare refusals, we have largely been reliant on stakeholder views, evidence collected by the TII, driver survey data[82] and TSC complaints data.

REASONS FOR TRIP REFUSALS

From discussions with operators and drivers, trip length is one factor that may lead to a fare being refused, but there are other factors. For example, during shift changeover times fares may be refused because they are not heading in the direction of the taxi depot. Alternatively, drivers may refuse a fare because the chances of getting a return fare from the destination are low.

The results of our driver survey suggest that trip distance is not a major factor in fare refusal. Trip length (too long or too short) was reported as the two least important factors in the decision to not accept either a rank or hail job or network dispatched job. According to the survey, the most important factors in drivers' decisions to not accept a rank or hail job are: customer characteristics (e.g. intoxicated or aggressive), direction (e.g. away from depot at shift changeover time) and destination (e.g. unfamiliar or unlikely to get a return job). Similarly, the most important factors reported in the survey for not accepting a network dispatched job are: inappropriate pick-up point (most important), followed by expectation of better alternatives (e.g. expectation of better returns by waiting in a rank rather than accepting a network job) and the direction and destination. The least important factor was trip length.

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80 VTA submission, 8 October, p. 6.

81 Naqvi submission, 7 October, p. 4.

82 We conducted a driver survey to collect information on driver costs and revenues, and to better understand the behaviour and incentives of drivers.

There is very little information about the distribution and dispersion of fare refusals — that is, the times at which fare refusals are most likely, the origin *and* destination where refusals are most likely, or the trip distance for which fares are refused (and how this changes throughout the day and in different parts of Melbourne). Anecdotally, it seems that fare refusals are most common for short trips originating in the city or at the airport; where the latter involve trips to nearby suburbs and the former usually involve trips to destinations elsewhere in the central business district.

There is even less information available about the relationship between the fare structure and drivers' decisions regarding short trips. Clearly, it is not a straightforward relationship as different drivers are motivated differently. Some see it as good commercial practice to accept every fare. Others have suggested that it is part of their 'social responsibility' as a driver to accept a fare irrespective of the trip distance. Nonetheless, it continues to appear that some proportion of drivers continue to refuse fares despite the legal obligation to not do so.[83]

The extent to which the problem of fare refusals can be fixed through a restructuring of tariffs, rather than greater enforcement activity by the industry regulator, remains an open question. In all likelihood, a combination of both responses may be required.

TSC COMPLAINTS DATA

The TII-commissioned consumer research identified that many taxi users (30 per cent) had been refused service on the grounds that the fare was too short.[84] In addition, there was a wide range of submissions received providing anecdotal evidence of short fare refusal.

We also considered the TSC's complaints data, which records customers' reported experience with fare refusals. The results indicate that fare refusals are a significant proportion of all complaints. The data do not tell us the distance or time of the refused fare. We discuss the TSC complaints data in more detail in section 2.6.2.

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[83] Regulation 29 of the *Transport (Taxi-Cabs) Regulations 2005* provides that the driver of a taxi cab must take a passenger who is attempting to hire the taxi cab unless the driver refuses under regulations 36(1) and 41(7). These Regulations state that the driver may refuse to carry a person if he/she is violent, noisy, misbehaving or offensive, or is in possession of an item which is not able to be safely and securely accommodated within the taxi, or cannot demonstrate to the driver that he/she is able to pay the estimated fare, or does not pay a deposit upon request.

[84] Lattitude Insights 2012, *Consumer Detriment Research, Final Report*, January.

4.4.3 COMMISSION'S CONCLUSIONS

The terms of reference require us to have regard to the issue of short fare refusals. We believe trips of varying distance can be refused for a range of reasons, even though this is illegal under the Transport Act. While there is no detailed data on the extent of short fare refusals, the overwhelming anecdotal and consumer research information received by both the TII and ourselves suggests short fare refusal is a greater issue compared to fare refusals for longer trips.

By rebalancing the flagfall and distance rates, the incentives for short fare refusals will be reduced, presumably leading to improvements in service outcomes for customers.

We note that doing so will have differential impacts on different groups of customers. It has been consistently put to us that elderly customers and people with a disability tend to take shorter taxi trips. A large rebalancing of fares to increase the returns for shorter trips (including by having minimum fares) would adversely affect these consumers. Of course, these passengers also incur fare refusals, so some rebalancing may work in favour of this group of users. Further, in the time allowed for this review we have not been able to undertake the necessary analysis or consultation that would be required before adopting a minimum fare structure.

For now, we have decided to rebalance the fare structure by increasing the flagfall rate relative to the distance rate. This is in accordance with the findings of the TII and will go some way to shifting the balance between short and long fares to a small, but important, degree. We will monitor the outcomes of this adjustment, particularly its impact on reported short fare refusals. These observations will inform our future fare reviews.

With the advent of new metering technology, we believe other fare-based options will become increasingly available. Some of these options have the potential to better target solutions to various concerns about taxi service provision, such as fare refusals. For example, if it is indeed correct that most fares are refused either in the city or at the airport, then an 'origin-destination' fare structure would provide a more targeted solution to the problem. In other words, different tariffs could operate for trips originating and ending in the city to those that operate for short trips taken elsewhere (for example, by a patient attending a doctor's appointment in the suburbs). Some of

the alternative fare structures that we will be investigating ahead of our next review are discussed in chapter 8.

4.5 AIRPORT QUEUING

The TII was concerned by the large number of taxis queuing at Melbourne Airport. It noted that airport fares are attractive given longer trip lengths, explaining that:

> *The fare per kilometre rate is well above the marginal costs … The gap between fares and marginal costs provides the basis for drivers being willing to spend long periods queuing at the airport to secure one of these fares. There are more vehicles queuing at the airport than are reasonably needed… .*[85]

In pursuit of these higher fares, the TII noted that taxis were queuing at the airport, reducing taxi availability for other parts of Melbourne and creating other problems (such as drivers being discourteous to passengers only wanting to travel a short distance).

In its submission to the TII, the Victorian Taxi Directorate also raised concern about the "*possibility that too many taxis currently wait idle for long periods in the Melrose Drive holding yard, hoping to secure a large return fare, when those vehicles could be more productively used elsewhere*".[87]

The TII recommended increasing the flagfall and reducing the distance rate to address airport queuing, as this would decrease the attractiveness of longer trips.

Related to the number of taxis queuing at the airport is the administration of the queue. The taxi queue at the airport moves taxis from the airport holding rank to the secondary holding rank before picking up a passenger.

Unless a taxi has been pre-booked for an airport pick-up, all taxis looking to get a fare from the airport must first queue at the airport holding rank (which can hold 680 taxis).

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[85] Taxi Industry Inquiry 2012, Draft report, May, p. 476.

[87] Victorian Taxi Directorate 2011, *Submission to the Taxi Industry Inquiry,* 18 August, p. 10.

As taxis are required at the airport, vehicles at the head of the queue proceed to the secondary holding rank (which can hold 200 taxis) closer to the airport — it is from this rank that taxis proceed to the airport kerbside to pick up a waiting passenger.

Prior to May 2013, a short fare system had operated at the airport, whereby if a taxi received a 'short fare' from the airport, they were able to bypass the queuing system and instead go straight to the kerbside to pick up another passenger. Melbourne Airport had operated different forms of the short fare system, including suburb and time based approaches. However it found that the system was being abused by some drivers, so removed the scheme in 2013.[88]

4.5.1 STAKEHOLDER VIEWS

We received a number of submissions in relation to airport queuing. The majority of stakeholders agree that a large number of taxis queue at the airport for significant lengths of time. For example, Gilliver notes that "*many cars find their way to the airport in the morning and many drivers elect to stay there in the rank. This has the result of up to 700 cars waiting at the airport with a waiting time of around 2 hours*".[89] Naqvi notes similar waiting times.[90]

Brumby submits that the tariff structure encourages taxis, in particular WATs to, queue at the airport:

> *WAT vehicles in increasing numbers choose to sit at the airport rather than do dedicated wheelchair work. There is a tendency for some drivers to charge higher tariffs T3/4 from airport to unsuspecting passengers (as well as wheelchair clients). I believe the availability of these higher tariffs encourages drivers to make a business decision to operate at airport instead of doing wheelchair work.*[91]

[88] ABC News, *Airport short trip plan slammed by taxi industry*, 26 April, accessed on www.abc.net.au/news/2013-04-26/airport-short-trip-plan-slammed-by-taxi-industry/4653432 accessed on 12 March 2014.

[89] Gilliver submission, 12 September, p. 3.

[90] Naqvi submission, 7 October, p. 4.

[91] Brumby submission, 8 October, p. 2.

Other stakeholders question whether an airport queuing problem exists. For example, one driver claims that the airport is not a problem, as at peak times up to 300 taxis are taken per hour and airport queues are moving faster now than in the past. Clark notes that "*we will soon be able to answer questions around the airport problem (if there is one)*", suggesting that whether an airport queuing problem exists is not yet evident.[92]

4.5.2 COMMISSION'S ANALYSIS

Large numbers of taxis queue at the airport at certain times (usually following peak morning and afternoon demand for trips to the airport) and taxis can sometimes wait in the queue for over two hours. We have sought to better understand the reasons for this driver behaviour and the extent to which drivers are targeting the airport for longer trips and higher fares. Further, we have examined the impact of airport queuing on the availability of taxis for trips originating in other parts Melbourne.

AIRPORT QUEUING

From discussions with stakeholders and examining the findings of our driver survey, we suggest the top five reasons taxi drivers choose to queue at the airport are:

1. '*looking to avoid driving empty from airport*' – this is the main reason. Stakeholders said the large number of taxis at the airport reflects the large number of passengers who have been taken to the airport
2. there is a '*guaranteed fare after waiting*'
3. waiting in the queue is an opportunity to rest, have lunch, coffee etc
4. fares from the airport are usually higher than others, and
5. the waiting time is just as long elsewhere.

Our survey also asked if drivers drive empty to the airport. Eighty two per cent of survey respondents said they drive empty and 63 per cent of these drivers do it one-to-three times per shift. While this initially appears concerning, the survey also indicates that only a short distance is being driven to get to the airport, with these taxis coming from suburbs to the north and west of Melbourne. Further, one of these empty

[92] Clark submission, 8 October, p. 7.

trips is typically occurring at the start of a shift (with the airport representing the best chance of getting a fare). In some cases driving empty is in response to a pre-booked job from the airport.

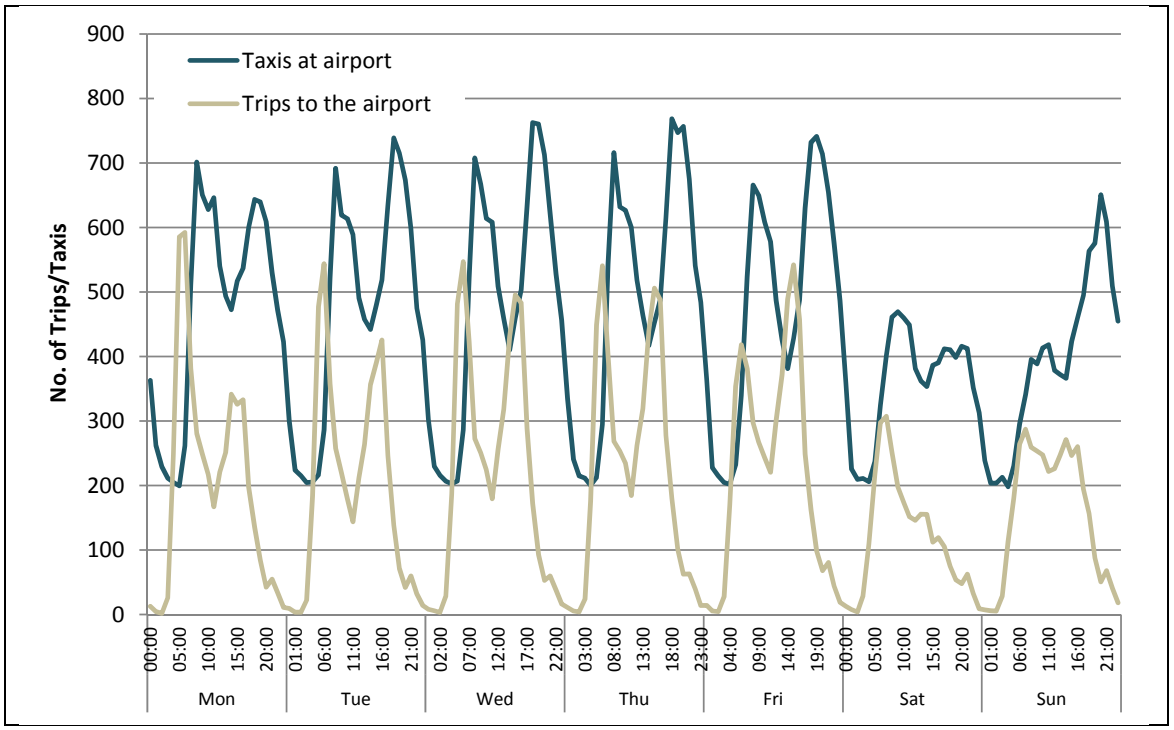
These observations are consistent with the trip data, which shows that 42 per cent of trips from the airport are taken by taxis that have dropped a passenger at the airport — put another way, 58 per cent of trips from the airport are taken by a taxi whose previous fare was not to the airport. Of this 58 per cent, 16 per cent are taken by drivers whose first fare of the shift is from the airport.

THE EXTENT OF AIRPORT QUEUING

Figures on the number of taxis queuing at the airport by time of day are not readily available. To assess the extent of airport queuing, we have used our trip data to get an indication of the flow of taxis to and from the airport.

We analysed the trip data to determine the number of taxis dropping off and picking up passengers at the airport at different times of the day. This allowed us to estimate the number of taxis queuing at the airport throughout the day.

FIGURE 4.1 TAXIS AT AIRPORT AND TRIPS TO AND FROM AIRPORT
October to December 2011



Data source: Silver Top trip data from October to December 2011.

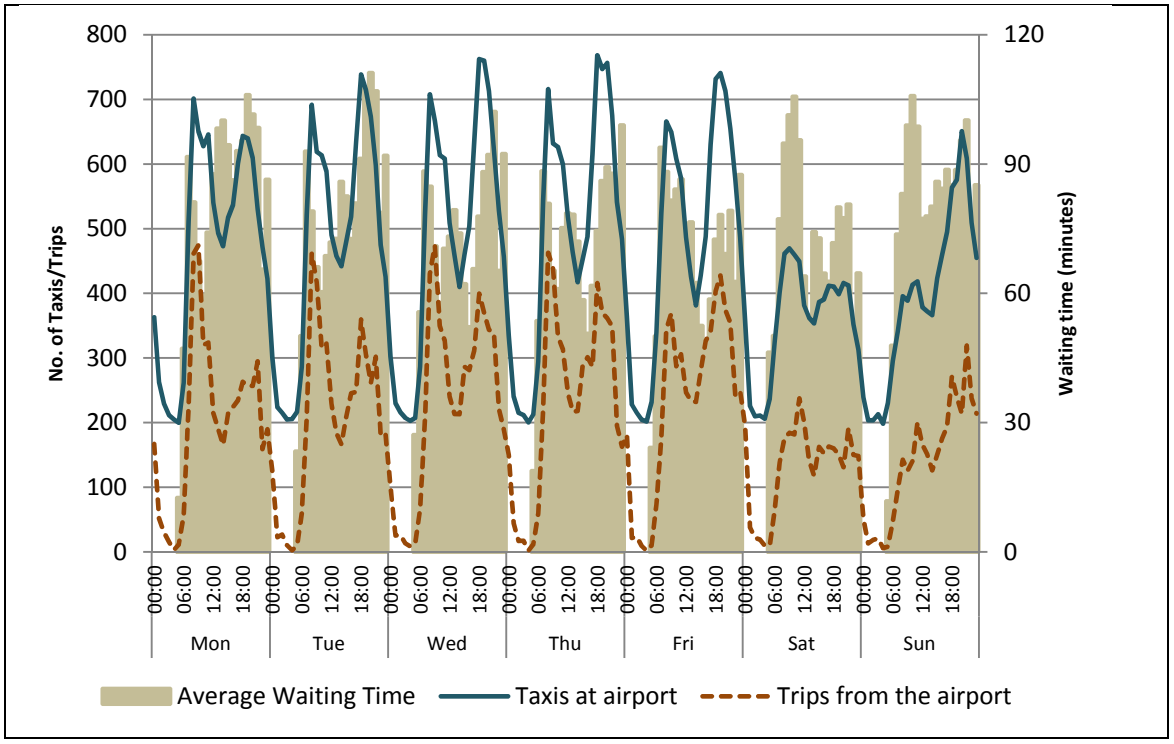
Figure 4.1 shows that the longest taxi queues occur following the peak periods for trips to the airport, as well as after the typical shift change times. This result is consistent with the stated reasons for drivers to queue at the airport (having dropped a passenger at the airport, or at the start of their shift).

Figure 4.2 shows the average queuing time for taxis at the airport by time of day (estimated from the time between fares where taxis had two consecutive airport trips in one shift). On weekdays, when the airport taxi queue is longest, the average queuing time is relatively short compared to other times — particularly during the morning peak and early in the afternoon peak. During these times it appears the taxi queue moves quickly, coinciding with the peak in demand for taxi trips from the airport.

The airport provides taxi drivers with a highly reliable source of trips of above average length, which may encourage drivers to queue for long periods. The periods with the

strongest demand for taxis to and from the airport correspond with periods of heavy traffic in the city, which makes short fares less rewarding in comparison to a long trip to the airport travelling at high speed.

FIGURE 4.2 AIRPORT QUEUE AND QUEUING TIMES
October to December 2011

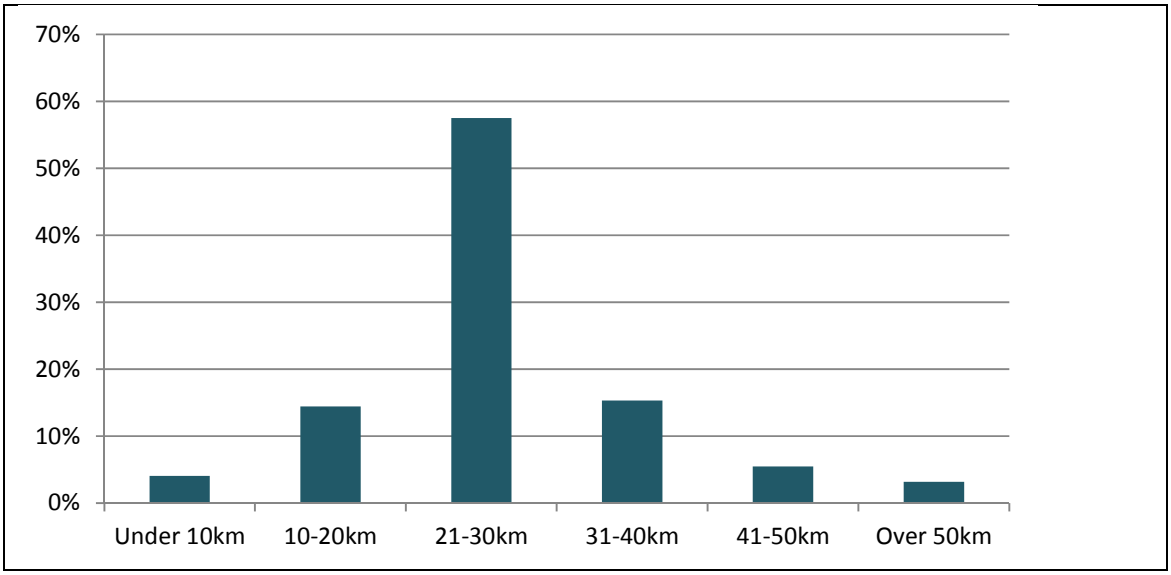


Data source: Silver Top trip data from October to December 2011.

Trips from the airport

The length of trips from the airport is presented in figure 4.3. The data shows that the majority of trips are 21–30 kilometres in length (the trip from the airport to Melbourne's CBD is around 25 kilometres). There are few short trips (under 10 kilometres) or long trips (over 41 kilometres).

FIGURE 4.3 TRIPS FROM THE AIRPORT BY DISTANCE
January to December 2011



Data source: NSP data, 2012.

THE IMPACT OF AIRPORT QUEUING

While it is clear that long queues of taxis occur at the airport, whether airport queuing presents a significant problem for passengers depends on the implications for taxi availability in other locations. The TII reported that large queues at the airport reduce taxi availability across the rest of Melbourne.[93]

Impact on availability

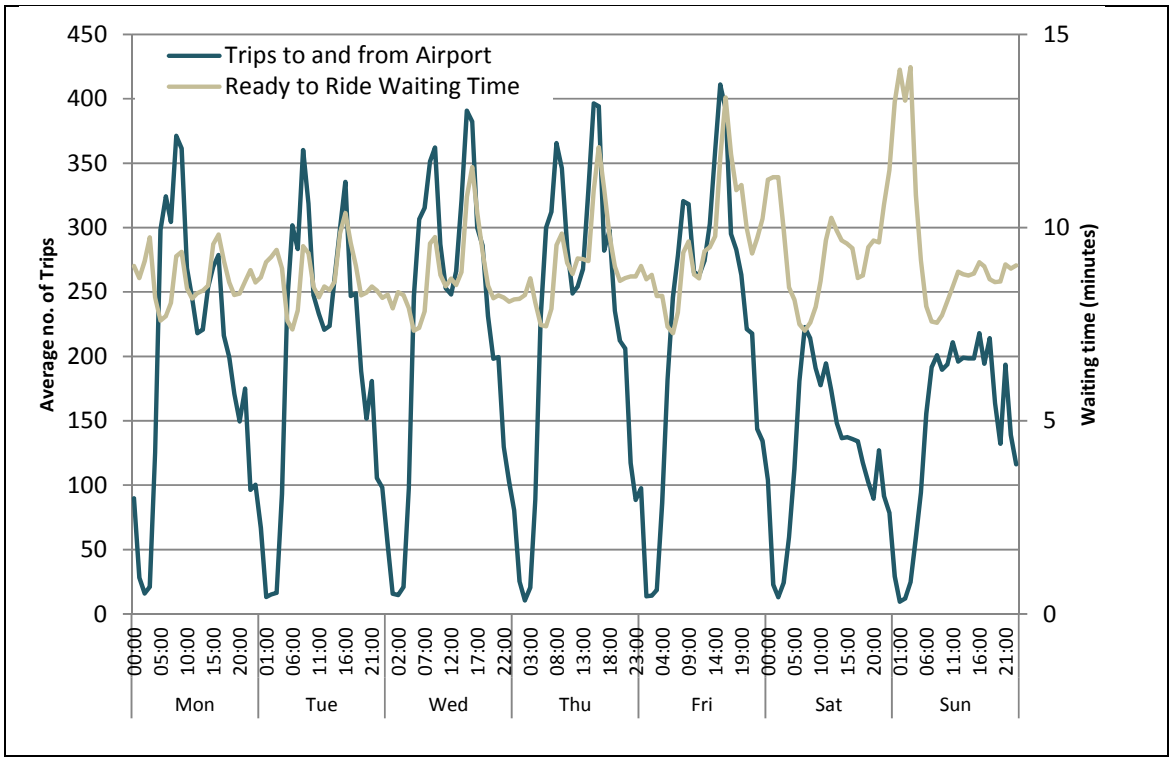
We note that peak times for taxi travel to and from the airport are different from the peak times for general taxi usage. The trip data shows that peak times for airport trips are 5am to 9am and 3pm to 6pm on weekdays, with few airport trips during the Friday night and Saturday night peak times (figure 4.4).

To get an indication on the extent to which airport queuing impacts on taxi availability in the wider taxi market, the estimated airport queuing data was compared to passenger

[93] Taxi Industry Inquiry 2012, Draft report, May, pp. 484 and 541.

waiting times for ready-to-ride taxis. Since taxis from the airport are either rank or pre-booked trips, the ready-to-ride waiting times show taxi availability for other Melbourne trips (although it does not show the availability of taxis at ranks in the CBD). Airport trip volumes were also included in this comparison.

FIGURE 4.4 READY-TO-RIDE WAITING TIMES AND TRIPS TO AND FROM AIRPORT
October to December 2011



Data source: Silver Top trip data from October to December 2011.

Figure 4.5 demonstrates that ready-to-ride waiting times are not coinciding with when the number of taxis queuing at the airport is highest. Indeed, in the hours when the number of taxis queuing at the airport increases to its highest, ready-to-ride waiting times are decreasing in the wider market.

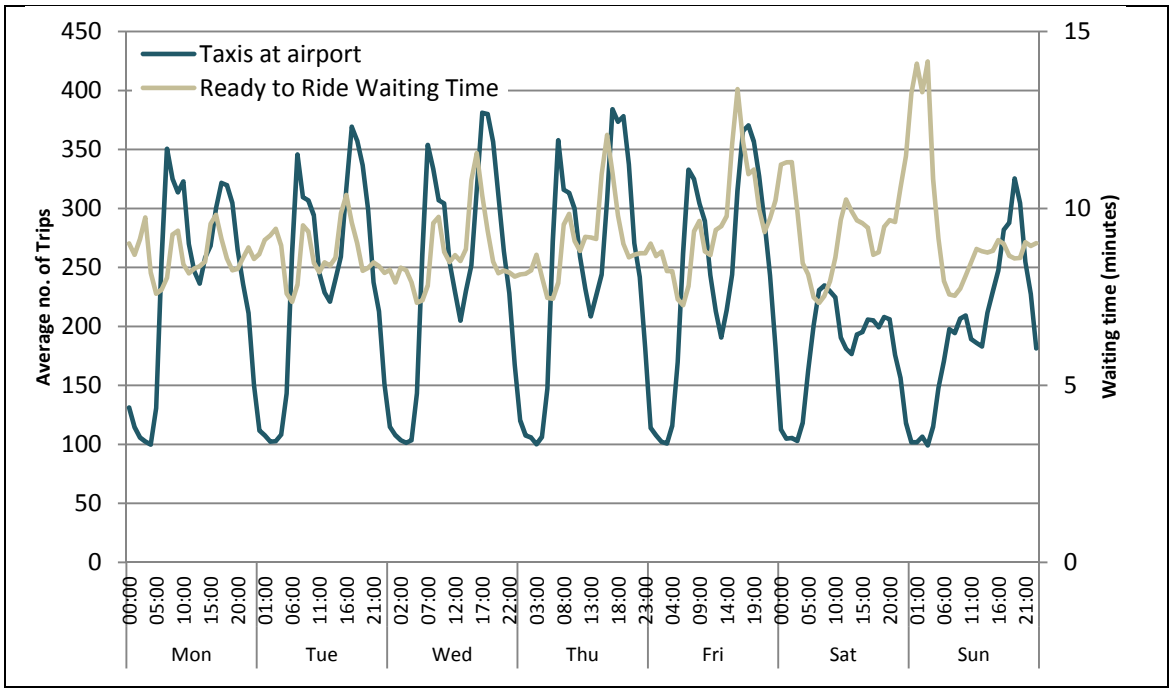
Peaks in the ready-to-ride waiting times appear to be correlated to taxi demand peaks, occurring during peaks in airport trips, as well as the Friday and Saturday night taxi

demand peaks. During the afternoon peak in airport trips, ready-to-ride waiting times rise from around 8-9 minutes to 11 minutes. Market-wide demand peaks, including airport demand (rather than airport queuing of taxis) is having some effect on the availability in the wider market — however this does not appear to be a significant issue, with waiting times for taxis in the wider taxi market increasing only a couple of minutes.[94]

In other words, the airport parking bay appears to be serving as a holding pen for taxis when they are not required elsewhere in the market but operators insist on keeping their vehicles in service.

[94] We note that the Public Transport Survey reports that 41 per cent of taxi users responded that they considered a reasonable waiting time for ready-to-ride taxis to be 6 to 10 minutes, while 22 per cent responded 11 to 15 minutes, meaning a majority (60 per cent) of respondents believe a reasonable waiting time to be somewhere between 6 and 15 minutes (see Wallis 2013, *Public Transport Customer Satisfaction Monitor Survey – Metropolitan Taxis Report October – December 2013*, December, p. 69.). Given that the average ready-to-ride waiting time of 11 minutes during the period of highest airport queuing falls roughly in the middle of these bands of reasonable waiting times, we believe that this slight impact on waiting times is not a significant issue.

FIGURE 4.5 TAXIS AT AIRPORT AND READY-TO-RIDE WAITING TIMES
October to December 2011



Data source: Silver Top trip data from October to December 2011.

Impact on industry costs

While taxi queuing at the airport may not have a noticeable adverse impact on taxi availability, a significant number of idle taxis invites consideration of occupancy rates and industry costs. Whether waiting at the airport or driving without a passenger elsewhere, an excessive number of empty taxis reduces overall occupancy rates and hourly driver returns, and adds to industry costs. By increasing industry costs, fare levels need to be higher than they otherwise would need to be to keep the industry viable.

Changes to the fare structure that reduce the incentive to queue at the airport and encourage operators to be more flexible around shift structures (i.e. the time and total number of hours the taxi is on the road) could improve industry outcomes by reducing

costs and increasing occupancy rates. Overall, fewer taxis would need to be required to serve the market.

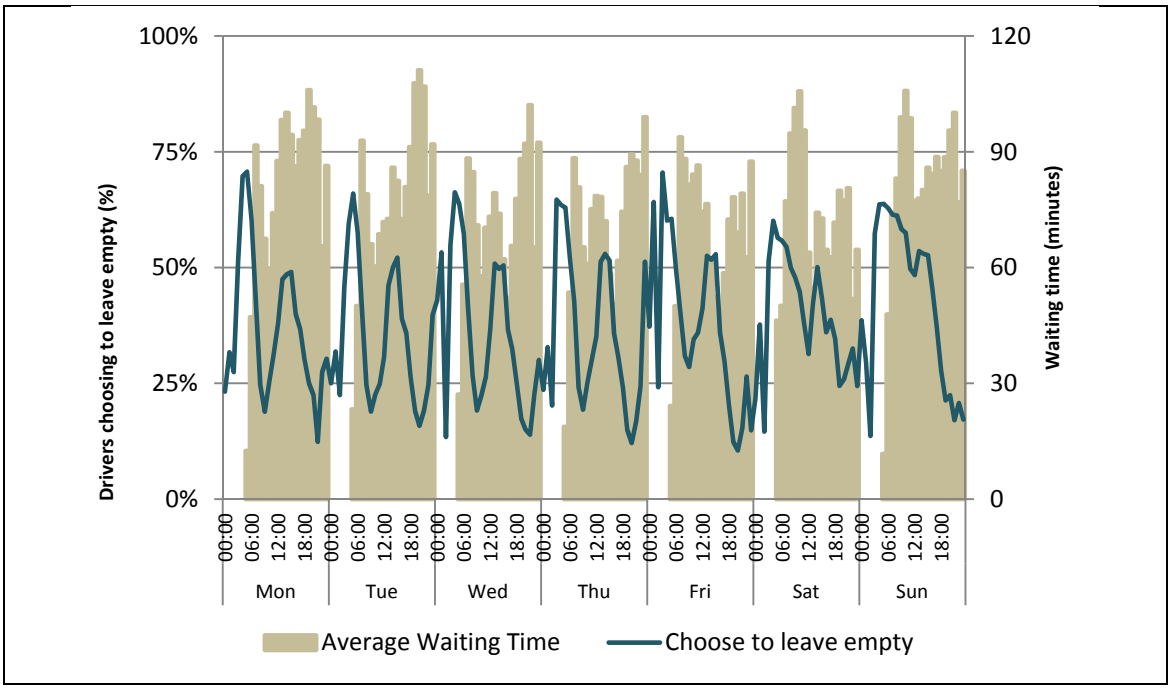
THE CHOICE TO NOT QUEUE AT THE AIRPORT

We also cross-checked the number of taxis dropping a passenger at the airport with the origin of the following fare taken by the taxi (whether it was an airport pick-up, or originated from a location outside the airport). This can tell us whether drivers are choosing to queue at the airport to find their next fare or find a fare elsewhere.

Figure 4.6 shows that throughout the day a significant proportion of taxi drivers dropping a passenger at the airport choose to drive away from the airport empty to find their next fare or end their shift. While taking a passenger to the airport is the main reason given for queuing at the airport, not all drivers dropping passengers at the airport choose to queue at the airport for their next fare. Drivers evaluate the need for more taxis at the airport before deciding to wait in the queue.

We note that during the longest airport queuing periods, the number of taxis choosing not to wait at the airport for their next fare (those whose next fare does not originate from the airport or who finish their shift without another fare) is also at its highest. Therefore, when airport queue waiting time is at its highest, a significant proportion of taxis choose not to queue at the airport. This suggests that drivers do not always view the airport as a ‘guaranteed fare’ or the best choice. By choosing to leave without a passenger, they have determined that their expected earnings would be higher by seeking fares elsewhere.

FIGURE 4.6 DRIVER CHOICE TO QUEUE AND QUEUING TIME
October to December 2011



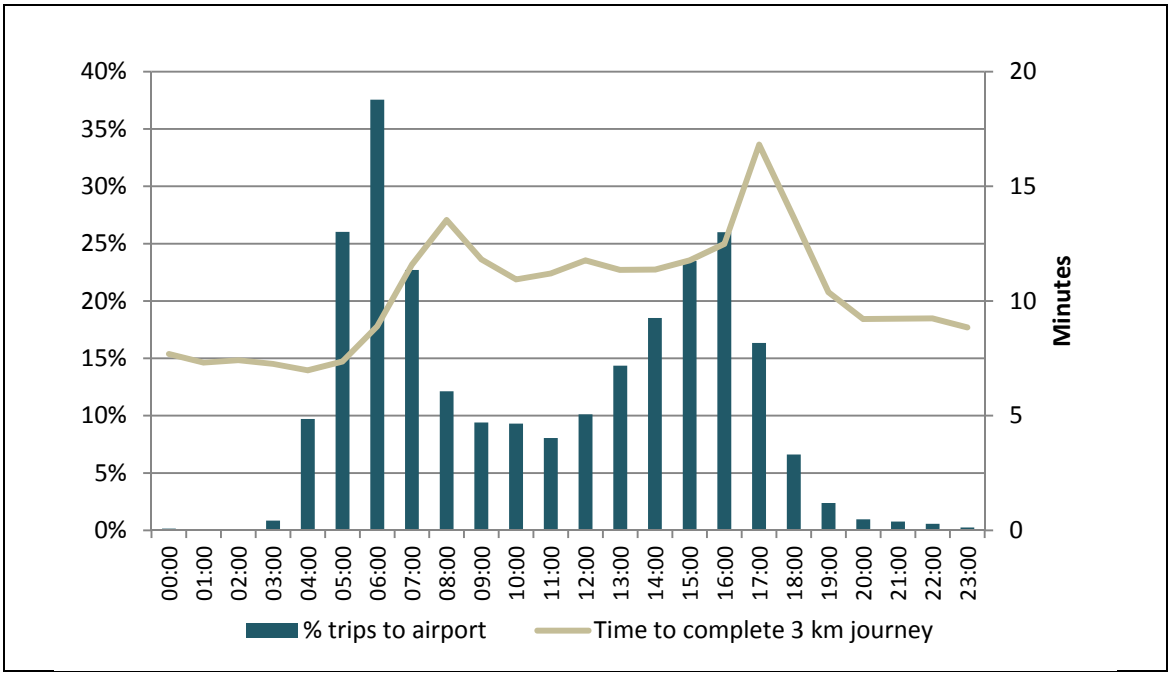
Data source: Silver Top trip data from October to December 2011.

More broadly, the trip data tells us that on average, 39 per cent of taxis that go to the airport with a passenger leave the airport without a passenger.

RETURNS FROM CBD RANK TRIPS

Figure 4.7 shows that at certain times the chances of a fare to the airport are very high from CBD ranks. A driver would need ten to twelve short fares (3-5km) in three hours to equate to a trip to the airport followed by a wait in the airport queue of 60–90 minutes and a return fare from the airport.

FIGURE 4.7 SHARE OF CBD RANK AND HAIL JOBS GOING TO THE AIRPORT AND TYPICAL JOURNEY TIME FOR A 3KM TRIP
Monday to Friday — October to December 2011



Data source: Silver Top trip data from October to December 2011.

4.5.3 COMMISSION'S CONCLUSIONS

At certain times, a large number of taxis queue for long periods at the airport. This does not imply that all airport queuing is arising because of fare structure incentives.

Analysis of trip data indicates that the availability of taxis at the airport correlates strongly with higher demand periods for trips from the airport, so that queuing times are not always longest at higher demand times. Our analysis has further found that not all airport queuing is arising because of fare structure incentives — the key reason for airport queuing relates to consistent high demand for trips to the airport and lack of demand for taxis elsewhere.

We have also found that airport queuing does not reduce the availability of taxis in other parts of Melbourne when measured using network booking data.

Further, whether the fare structure provides incentives for longer trips from the airport compared to short trips elsewhere is a broader issue than the number of taxis queuing at the airport.

Although our analysis has found that consumers do not appear to be suffering material detriment from airport queuing practices, there may be indirect effects in that a significant number of idle taxis reduces industry efficiency, which is ultimately reflected in how fares are set. This could be improved at the margin by changes to the fare structure.

We have therefore considered changes to the fare structure which move in the direction of better balancing incentives for trips of different lengths. This has the potential to reduce driver willingness to queue at the airport.

4.6 PEAK AND OFF PEAK FARES

There are two related aspects to the consideration of peak and off peak fares. First is the identification of the periods to which different fares should apply. Second is the level of fares during each of those periods, including the level of specific fare components and the balance between the flagfall and distance rates. (In the future, new elements other than flagfall and distance rates may be included in the fare structure. These are discussed in chapter 8).

The TII received many submissions highlighting concerns about the availability of taxis late at night on weekends in Melbourne and general availability in outer metropolitan and regional areas.[95] It also conducted a survey which showed that 20 per cent of all customer complaints were related to incidents occurring on Saturday nights between 7pm and 4am.[96]

[95] Taxi Industry Inquiry 2012, Draft report, May, p. 184.

[96] Taxi Industry Inquiry 2012, Draft report, May, p. 184.

In considering the issue of time-of-use tariffs the TII focused on the supply and demand balance across different times of the day and week, and the impact of the existing fare structure on supply and demand. The TII found that there was no evidence of problems with supply on Sunday to Thursday nights and that the existing late night surcharge was therefore unwarranted at these times.

Friday and Saturday nights, however, were found by the TII to be marked by a shortage of available vehicles, leading to longer waiting times, more refused trips and generally more difficulty for customers in finding a taxi. In combination with its recommendation to increase drivers' share of farebox revenue, the TII recommended higher charges on Friday and Saturday nights, offset by a decrease in fares at other times. In suggesting that some fares should decrease, it is not clear to what extent the TII took into account the absence of a general fare increase since 2008.

On fare structure, the TII recommended a general increase in the flagfall and a reduction in the distance rate in the metropolitan zone to address short fare refusals and decrease the attractiveness of longer trips (e.g. trips from the airport, in order to reduce the number of taxis queuing at Melbourne Airport).[97]

However, the TII highlighted that a substantial reduction in distance (and waiting time) rates may introduce new problems, such as long fare refusal. Similarly, a substantial increase in the flagfall may have a significant impact on demand for short trips, particularly by lower income groups in the community. The TII went no further in its analysis or recommendations than these high level observations.

4.6.1 STAKEHOLDER VIEWS

We received no submissions that support both an increase in peak fares and a reduction in off peak fares. Gilliver argues against having peak and off peak fares noting that *'costs do not vary by day or time – they are fixed'* and that there should be *'one tariff, at all times'.*[98]

[97] Taxi Industry Inquiry 2012, Draft report, May, pp. 30 and 481.

[98] Gilliver submission, 12 September, p. 2.

The majority of stakeholders argue for increased peak period fares; however, opinions differ as to the relative adjustments that need to be made to peak and off peak fares, as well as the time periods to be classified as peak and off peak. A number of fare structure options were presented to address an increase in peak fares:

- Personalized Cabs suggests a higher flagfall (and no change to the distance rate) to operate between 10pm and 6am.[99]
- An anonymous submitter suggests higher flagfall and distance rates to operate between 8pm to 6am Monday to Thursday and 8pm Friday to 6am Monday.[100]
- Naqvi (driver) suggests a weekend rate of 1.5 times higher than the regular fare to apply from 5pm Friday to 5am Monday.[101]
- The Australian Taxi Drivers Association (ATDA) suggests the regular distance and waiting time rates be increased 33 per cent during weekday nights and weekend days and 50 per cent during weekend nights.[102]
- An anonymous submitter suggests that the current 20 per cent surcharge be extended to operate from 9pm to 9am.[103]

Suggestions were also submitted by Ballarat Taxis[104], Brumby[105], Glazebrook[106], Smith[107] and Parker.[108]

While many suggestions were provided, neither evidence in support of the suggestions, nor arguments for particular times for the proposed peak period fares, were presented in submissions.

[99] Personalized Cabs submission, 11 September, p. 1.

[100] Anonymous submission, 30 September, p. 1.

[101] Naqvi submission, 7 October, p. 4.

[102] ATDA submission, 30 September, p. 1.

[103] Anonymous submission, 3 October, p. 3.

[104] Ballarat Taxis submission, 9 October, p. 2.

[105] Brumby submission, 8 October, p. 1.

[106] Glazebrook submission, 8 October, p. 1.

[107] Smith submission, 3 October, p. 1.

[108] Parker submission, 8 October, p. 1.

Geelong Taxi Network has concerns about increasing peak period fares in daylight hours Monday to Friday as this would disproportionately affect aged, frail and disabled passengers, however it supports increasing fares in peak periods after hours.[109]

A number of submissions argue against a reduction in off peak fares. An anonymous submitter[110] and Gilliver[111] note that it would not be fair to day drivers to reduce off peak fares. The VTA suggests that a reduction in day fares would unfairly and disproportionately reduce the income for wheelchair accessible taxi (WAT) drivers as demand for WAT taxis is highest during working hours on weekdays.[112]

Flagfall and distance rates

Several stakeholder submissions suggest new flagfall and distance rates. An anonymous submission proposes that the flagfall be raised to $5.50, including the first kilometre, the booking fee increased to $4.50, while the distance rate should be raised to $1.85 per kilometre on tariff 1 and $2.05 per kilometre on tariff 2 to reflect additional costs incurred over the last five years.[113] Personalized Cabs[114], Parker[115], Ballarat Taxis[116] and ATDA[117] presented similar views; however, opinions differ as to the magnitude of adjustments that need to be made to the flagfall and distance rates (ranging from $5.00 to $5.90 for the flagfall and $1.92 to $2.18 for the distance rate).

Other submissions suggest an increase in the flagfall and a decrease in the distance rate. An anonymous submitter suggests a flagfall of $7.80 and a distance rate of between $1.57 and $1.60.[118] Vratsidis (operator-driver) proposes the flagfall be raised

[109] Geelong Taxi Network submission, 8 October, p. 4.

[110] Anonymous submission, 8 October, p. 1.

[111] Gilliver submission, 12 September, p. 2.

[112] VTA submission, 8 October, p. 4.

[113] Anonymous submission, 30 September, p. 2.

[114] Personalized Cabs submission, 11 September, p. 1.

[115] Parker submission, 8 October, p. 1.

[116] Ballarat Taxis submission, 9 October, p. 2.

[117] ATDA submission, 30 September, p. 1.

[118] Anonymous submission, 3 October, p. 2.

to $15 in peak times, including the first 5 kilometres or first 15 minutes (whichever comes first), and the distance rate decreased to around $1.30 per kilometre.[119]

4.6.2 COMMISSION'S ANALYSIS

By varying taxi fares based on the time of day and week, it is possible to provide incentives for better matching of the supply of taxis with the demand for these services. Where successful, this would reduce excessive queuing by drivers and passengers. Fare structures can be designed to reflect the varying costs of supply as well as varying demand levels at different times.

To determine whether and how fares should vary during the day or week, to take account of peak and off peak periods, we have reviewed the data from 2012. This trip data allows us to assess supply and demand imbalances. We have considered the data in four ways: (i) aggregate trip numbers, (ii) number of taxis on the road, (iii) average customer waiting times for ready-to-ride, pre-booked trips and (iv) occupancy rates (a measure of the utilisation of the available taxi fleet that is on the road).

Aggregate trip numbers

To analyse periods of peak demand, we consider trip volumes for each hour across the week.[120] In presenting this information, we have set the trip numbers for the busiest hours (Sunday morning midnight to 1am and 1am to 2am) at 100 and those of every other hour are shown as a proportion relative to this period of peak demand (table 4.2). In other words, between 8-9am on a Thursday the number of trips being taken by passengers is 36 per cent of the number of trips taken between 12-1am and 1-2am on Sunday.

[119] Vratsidis submission, 6 October, p. 1.

[120] Unlike the total travelled hours used in calculating the occupancy rates, aggregate trip numbers do not give an indication of the amount of time spent or distance travelled by taxis in transporting passengers. Given short trips may be more prominent at certain times than others, it would be incorrect to assume a doubling of hourly trip numbers represents a doubling of work load. However, aggregate trip numbers do give an indication of a changing work load in a way that travelled hours cannot, insofar as higher trip numbers suggest more 'dead-running' between jobs where taxi drivers must search for a rank or hail ride, or travel to the pick-up location for a pre-booked job.

TABLE 4.2 HOURLY FLEET TRIP VOLUMES

Trip numbers indexed to Sunday 12:00 – 2:00=100, 2012

	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12 - 1am	26	16	21	26	38	84	100
1 - 2 am	18	11	14	17	28	78	100
2 - 3 am	13	7	10	11	20	64	90
3 - 4 am	10	5	7	8	15	49	78
4 - 5am	11	7	7	8	11	28	51
5 - 6 am	16	12	12	12	12	18	31
6 - 7 am	19	17	17	18	18	17	27
7 - 8 am	23	23	24	25	25	18	21
8 - 9 am	32	33	34	36	35	20	20
9 - 10 am	38	40	41	43	41	23	23
10 - 11 am	35	38	38	42	41	26	24
11 - 12 am	33	36	37	40	41	28	25
12 - 1pm	33	36	38	41	42	28	25
1 - 2 pm	32	35	36	39	39	27	24
2 - 3 pm	35	38	39	42	41	26	24
3 - 4 pm	35	37	39	41	40	26	24
4 - 5pm	31	33	35	37	38	29	26
5 - 6 pm	26	29	31	34	39	39	27
6 - 7 pm	29	34	37	42	53	56	30
7 - 8 pm	29	35	39	45	63	64	30
8 - 9 pm	26	31	35	42	58	61	29
9 - 10 pm	26	32	35	44	62	66	32
10 - 11 pm	24	31	37	47	74	79	33
11 - 12 pm	20	26	32	44	81	88	31

Data source: 2012 trip data from metropolitan NSPs.

The data shows there are clear steps in demand between Friday 10pm to 2am and Saturday 10pm to 4am, and very low demand during the early hours of weekday mornings. In addition, average hourly trip numbers show a consistent number of trips between 9am and 5pm.

It is interesting to note that outside of the busy periods beginning 6pm on Friday and Saturday nights, hourly trip numbers do not reach half of their Saturday night maximum. Much of the rest of the week is marked by trip numbers between 35 and 45 per cent of the maximum, and there are dramatic reductions in demand early

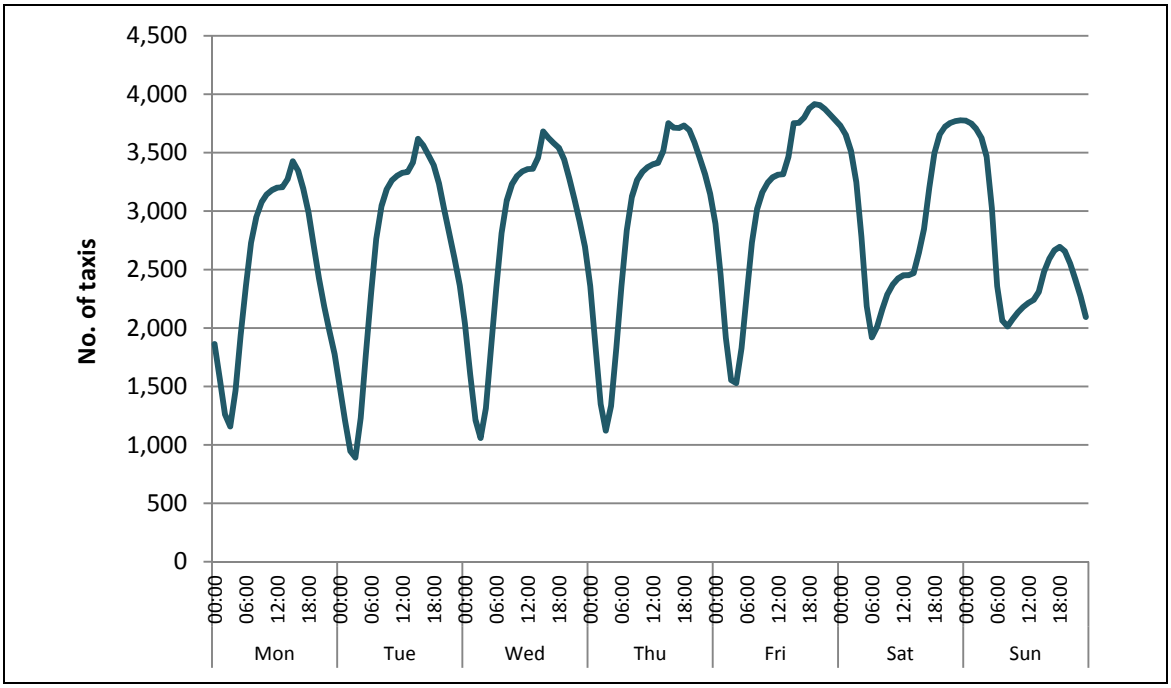
morning weekdays, with trip numbers often close to, or below, 10 per cent of the maximum.

This finding supports the TII suggestion that applying a 20 per cent late night surcharge throughout the entire week is not appropriate. Clearly, higher fares are warranted on Friday and Saturday nights given strong demand. The very low demand on weekday mornings suggests the surcharge is inappropriate and may be leading to a surplus of vehicles on the road at these times (see following discussion).

Taxis on the road

Supply data showing the number of taxis on the road was also considered in the analysis of peak and off peak fares (based on hour-by-hour data derived from driver log on and log off times) (figure 4.8).

FIGURE 4.8 METROPOLITAN TAXI AVAILABILITY
Taxis-on-road data 2012



Data source: Analysis of metropolitan NSP data

This analysis shows taxis broadly reacting to periods of high and low demand as should be expected, with peaks in supply on Friday and Saturday nights and fewer

taxis on the road during weekday early mornings. However, it is interesting to note that trip volumes peak after the peak in taxi numbers. Maximum trip volumes occur after midnight on Friday and Saturday nights, whereas the numbers of taxis on the road are at their highest from 7pm to 8pm Friday and from 11pm to midnight Saturday.

We questioned operators about their decision to withdraw taxis from service at the time they were most in demand. Operators expressed the view that “it was not worth it” given the increased likelihood of the vehicle being messed or damaged, non-payment of fares and harassment (and assault) of drivers. Clearly, there are both commercial and non-commercial aspects to the decision to withdraw a vehicle despite the strong earning potential at these times.

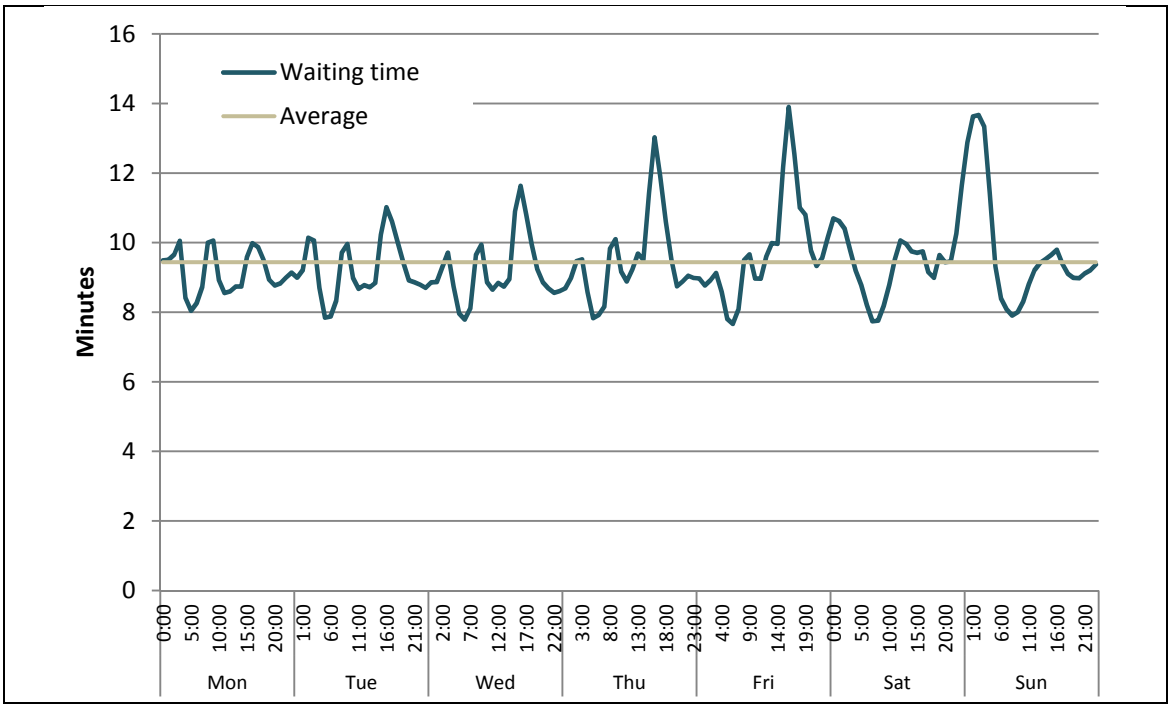
It is also interesting to note that the peaks of Friday and Saturday night supply are not that much larger than those of weekday evenings and that supply does not fall below 1000 active taxis during times of very low demand (except from 3am to 4am on Tuesday mornings).

Customer waiting times (pre-booked trips)

Waiting time data for ready-to-ride trips is also illuminating (figure 4.9). This analysis is drawn from the NSP data that records the time a passenger books a taxi for immediate departure and the time the trip begins. The elapsed time between the two (the customer waiting time) gives an indication of how rapidly the taxi fleet is responding to demand.

FIGURE 4.9 WAITING TIMES

Ready-to-ride response time in minutes, by day and hour for 2012



Data source: Analysis of metropolitan NSP data, 2012.

A number of factors influence the delay between a network booking and the arrival of a taxi. These include traffic congestion, the geographical dispersion of available taxis at any given time and the relative balance between supply and demand.

The TII reported that it is also the case that during high demand periods, NSPs do not always answer calls, resulting in waiting times at peak times that are likely to be longer than shown in the figure.

Traffic congestion could explain the significant spikes in waiting times around 4pm to 5pm from Tuesday to Friday, clearly seen in the data. At these times, the number of taxis on the road is close to their weekday maximums and trip numbers are not particularly high, suggesting that slow traffic speeds are the most likely explanation.

The dispersion of taxis should be seen as a problem of matching available taxis to passenger locations. Though this may affect any individual booking, it would be fair to

expect any systematic, repeated geographic mismatch of taxi supply and demand to be exploited by drivers seeking to maximise their revenues. Taxi drivers should be expected to search for the areas where customers are abundant and taxis are scarce. This effect will ensure taxis are distributed across space roughly as they are needed, and aggregate waiting times should not be affected by the problems of taxis having to travel long distances to arrive at pick-up destinations.

Waiting times can be expected to lengthen when demand increases without a corresponding response in supply (measured in taxi numbers on road) because taxis must travel greater distances to pick-up passengers. Further, because they have greater choice about which fares to accept, they are less likely to be inclined to take up ready-to-ride dispatch jobs.

This can be seen with peak waiting times occurring on Saturday nights. While waiting times are above average for much of Friday night, the spike on Wednesday, Thursday and Friday afternoons are more pronounced.

Early weekday morning waiting times are nearly always below average. Despite the fact that taxis may need to travel further distances to reach the pick-up destination of any job, the data shows customers are not left waiting longer than usual for their taxis to respond to bookings at these times. This is likely due to the absence of traffic induced delays.

Occupancy rates

To measure the efficiency of the taxi market, we calculate the 'occupancy rate' for Melbourne metropolitan taxis across the 168 hours of the week using trip and shift (driver log on and log off times) data for 2012. We have defined the occupancy rate as the percentage of time for which taxis on the road are occupied by paying passengers.[121] Occupancy rates, presented in table 4.3, are calculated by as follows:

- For each hour, we calculate the 'shift minutes' as the total time in minutes that any taxi in the Melbourne taxi fleet was operating (i.e. driver is logged in)

[121] This is the same approach used by the TII, although a minor methodological difference in the calculation of shift minutes during common driver change-over hours has produced slight variations in some hourly results.

- For each hour, we calculate the ‘trip minutes’ as the total time in minutes that any taxi was occupied by a paying customer (i.e. meter is running)
- For each hour, we calculate the occupancy rate by dividing the total trip minutes by the total shift minutes.

Occupancy rates are considerably above average during Friday and Saturday nights, with peaks in both nights just after midnight. For both nights, there are clear ‘steps’ in occupancy rates at 10pm, with relatively high occupancy rates continuing to 2am Saturday mornings and 4am Sunday mornings.

Conversely, during the early hours on weekday mornings, occupancy rates rarely exceed 25 per cent (and get as low as 14 per cent on Tuesday mornings). Broadly, occupancy rates tend to be lowest between midnight and 5am on weekday mornings.

These observations support the conclusions of the TII in relation to possible taxi shortages on Friday and Saturday nights and the questionable nature of the late night surcharge in ensuring supply during the early hours on weekday mornings.

From the occupancy rate data we can also identify a ‘base’ daytime period (around 9am to 5pm), within which occupancy rates do not vary significantly. While occupancy rates display some variation between days of the week, this ‘base’ period on weekdays is bounded by mini peaks associated with the morning and evening peak period travel times. Travel in the ‘mini peaks’ would be due to work travel and trips to and from the airport, as well as private or social trips after work.

TABLE 4.3 OCCUPANCY RATES

Average occupancy rates by day and hour of week, Melbourne metropolitan area, 2012

	Monday (%)	Tuesday (%)	Wednesday (%)	Thursday (%)	Friday (%)	Saturday (%)	Sunday (%)
12 - 1am	27	20	20	22	26	45	55
1 - 2 am	22	17	18	18	23	41	54
2 - 3 am	21	15	16	17	22	36	51
3 - 4 am	20	14	16	16	22	32	46
4 - 5am	26	21	19	19	21	25	34
5 - 6 am	33	27	25	24	21	23	27
6 - 7 am	32	29	27	27	26	26	31
7 - 8 am	33	34	33	34	32	23	26
8 - 9 am	37	39	38	40	38	24	24
9 - 10 am	32	35	35	36	34	25	25
10 - 11 am	26	28	28	30	30	28	26
11 - 12 am	24	26	26	28	31	31	28
12 - 1pm	24	26	27	29	32	30	29
1 - 2 pm	23	25	26	28	30	27	27
2 - 3 pm	27	30	31	33	36	27	27
3 - 4 pm	29	33	35	39	42	28	27
4 - 5pm	27	31	34	39	42	30	28
5 - 6 pm	26	29	31	34	38	34	27
6 - 7 pm	25	29	31	33	41	40	26
7 - 8 pm	25	26	27	29	38	38	23
8 - 9 pm	25	25	25	27	32	33	23
9 - 10 pm	26	25	26	29	34	36	27
10 - 11 pm	24	25	26	30	41	46	29
11 - 12 pm	22	22	24	28	44	50	29

Data source: 2012 trip data from metropolitan NSPs.

COMMISSION'S CONCLUSIONS

The opportunity to better match tariff structures with supply and demand conditions at different times of the day is limited by the desire for simplicity in fare design. A tariff schedule that was overly complex would likely lead to confusion (and potentially confrontation) and would also be very costly to implement (depending on the available metering technology). Using the data, we have identified that:

- highest demand occurs on Friday and Saturday nights
- lowest demand occurs on weekday mornings (say midnight to 5am) and
- a period of reasonably steady demand during the day (say 9am to 5pm, which is equal to or lower than demand in the evening).

While it is tempting to seek to address each of these observations using a finely tuned fare structure, for the sake of simplicity and ready implementation we have decided to set the following timings for the fare schedule:

- tariff 1 ('day' fare period): 9am to 5pm
- tariff 2 ('overnight' fare period): 5pm to 9am, excluding the 'peak' fare period and
- tariff 3 ('peak' fare period): 10pm to 4am on Friday and Saturday nights.

We base this on the following considerations.

Day fare period

The data shows a relatively constant level of demand during the day time. It also shows that occupancy rates are not particularly high, which is consistent with the many idle taxis we see on Melbourne streets during the day. There is no pressing need to adjust fares due to supply and demand imbalances during these times. Furthermore, given that business hours can be considered the most convenient hours to be working, this supports the argument that fares should be no lower than at this time of the week. Alternatively stated, fares outside of these hours should be set at a higher rate due to either demand pressure for more taxis or the greater return expected by drivers working in less sociable hours (e.g. late nights, early mornings).

Overnight fare period

This tariff covers a period of time with more variable demand. It incorporates periods of very low demand on early weekday mornings and mini peaks in the morning up to 9am and in the mid to late afternoon (excluding the peak fare period). Given the hours this tariff covers, it would be reasonable that operators and drivers receive higher tariffs during this period. Higher tariffs to cover the mini peaks are also reasonable to attract more taxis onto the road at these times. However a tariff as high at the Friday and Saturday night peaks (as currently occurs with tariff 2) is not warranted.

Given there is no reliable evidence on how different fare levels will affect supply side decisions across different times of the week, setting higher fares 'after hours' is the justifiably cautious approach that ensures supply does not shift in unwanted directions.

We considered whether this higher tariff was justified in the periods of very low demand during early weekday mornings. At these times the data shows there are more taxis than required to meet demand, suggesting a lower fare might be appropriate during these times. However, this would add to the complexity of the fare schedule and some of the older taxi meters cannot handle this number of tariffs.[122] More importantly, we concluded that if the difference between the daytime and overnight fares was less pronounced than the current 20 per cent off peak then the need for a special early morning tariff was less pressing.

Peak fare period

The data presents an easily recognisable period from 10pm on both Friday night and Saturday night, finishing 2am on Saturday mornings and 4am on Sunday mornings, where the taxi industry is faced with considerably higher demand. At these times, there are clear peaks in taxi trip numbers and higher than average waiting times. Higher fares are justified in order to better match supply to demand; namely, higher fares will increase incentives for operators to supply taxis and drivers to drive taxis at these times. More taxis will reduce passenger queue lengths and waiting times. For simplicity, we consider a Friday and Saturday night peak fare between 10pm and 4am to be most appropriate.

The new tariff timings and our fare setting principles

By encouraging drivers and operators to make supply decisions in accordance with the varying needs of consumers, the tariff schedule seeks to correct the imbalances that can be observed through analysis of the data. Similarly, the changes to fare levels across different times of the week better reflect differing taxi supply costs.

Unfortunately, no dependable evidence exists on customer sensitivity to pricing or the likely reaction to price changes. Measuring how passengers react to different prices, by

[122] If there were four separate tariff timings, eight different tariffs would have to be programmed into meters in HOV taxis — four tariffs for standard trips (i.e. carrying less than five passengers) and four tariffs for HOV trips.

passenger type and time of day and week will be an exercise for the next review, where trip data from both before and after the change in fare schedules will be available. Likewise, we will be monitoring closely how operators and drivers alter their decisions in light of the new fare structure.

Finally, aiming to better match supply and demand through varying fare levels is consistent with the principles outlined in section 1.4. The proposed changes seek to 'promote supply and demand responses that could be expected in a competitive market' by focusing on the provision and use of taxi services rather than equity, affordability, safety or driver/vehicle standards issues.

4.7 HOV TARIFFS

A high occupancy vehicle (HOV) is a class of taxi which can carry up to 11 passengers and can accommodate one or two occupied wheelchairs. HOVs are also referred to as wheelchair accessible taxis (WATs) or maxi taxis. For the purposes of this section on HOV tariffs, HOVs and WATs are used interchangeably.

Thirteen per cent of all taxis in Victoria are HOVs.[123] Not all HOVs are required to prioritise wheelchair bookings. In the metropolitan and outer suburban zones, 128 HOVs are required to prioritise wheelchair bookings at all times, 286 are required to do a minimum of nine wheelchair jobs per month and 96 are not required to prioritise wheelchair bookings.[124]

Higher tariffs (namely, current tariffs 3 and 4) apply to HOVs if carrying at least five passengers or if the hirer requests a HOV regardless of the number of passengers carried (these higher tariffs do not apply when the hirer is a wheelchair passenger).[125] The HOV distance and waiting time rates are 150 per cent of the equivalent standard tariff rates (namely, current tariffs 1 and 2).

[123] 684 HOVs out of 5231 total taxis as at January 2014. Source: www.taxi.vic.gov.au.

[124] Taxi Industry Inquiry 2012, Draft report, May, p. 343.

[125] Standard tariffs apply when the hirer is a wheelchair passenger.

CHARACTERISTICS OF THE HOV MARKET

HOVs serve four types of passengers: groups of 4 or less passengers, wheelchair passengers, groups of 5 or more passengers and other passengers who specifically requested a HOV. In 2012, there were 1.9 million trips in HOV taxis (across all these submarkets) accounting for eight per cent of all taxi trips in the metropolitan zone. Total revenue for HOVs is estimated to be $57.3 million (includes all submarkets; excludes lifting fee) and this represents 10 per cent of total industry fare revenue.[126]

When carrying a wheelchair passenger, drivers receive a lifting fee when loading and unloading passengers from WATs. In non-metropolitan Victoria a lifting fee is also paid for loading a wheelchair into the boot of a sedan or station wagon. The lifting fee recognises the time it takes drivers to load and unload wheelchair and scooter users. The lifting fee is paid by the Victorian Government and is currently $16 for the metropolitan zone and $8 for outer suburban, urban and country zones. Lifting fees are set by the TSC and are not part of our taxi fare review.

Tariffs 1 and 2 are the key sources of revenue for HOVs, followed by tariffs 3 and 4 and the lifting fee, as shown in table 4.4.

TABLE 4.4 HOV SOURCES OF REVENUE AND NUMBER OF TRIPS
Metropolitan zone

Source of revenue	Submarket	Revenue ($m)	Number of trips
Tariff 1 and 2	4 or less passengers, wheelchair passengers	44.4 (79 per cent of total)	1 705 872[a] (87 per cent of total)
Tariff 3 and 4	5 or more passengers or passengers who specifically request a HOV	11.9 (21 per cent of total)	262 120 (13 per cent of total)
Lifting fee	Paid by the Victorian Government to the HOV driver/operator when carrying a wheelchair passenger with a MPTP card	6.66	

[a] Twenty per cent of trips are wheelchair passenger trips.

Data source: 2012 trip data.

[126] Based on the $597 million industry revenue in 2012 for the metropolitan zone.

From the trip data, the average trip for HOVs on tariffs 3 and 4 is estimated to be 14 kilometres and the average fare is estimated to be $45. In comparison, the average trip for HOVs on tariffs 1 and 2 is estimated to be 11 kilometres and the average fare is estimated to be $26.

TII FINDINGS AND RECOMMENDATIONS

The TII made two key findings in regard to metropolitan HOV tariffs. First, it found that "*the current fare structure, including tariff 3, appears to be contributing to long wait times for WAT*".[127] The TII commented that this is because many WATs wait at the Melbourne Airport rank in the hope of collecting a tariff 3 fare from a larger group of travellers and "*this reduced the availability of the WAT pool for the rest of the city*".[128] The TII also concluded that "*tariff 3 has been subject to allegations of fraud which would be less likely to occur if a fixed dollar amount is added to the meter at the start of the journey*".[129]

The TII noted that "*some of the drivers fraudulently apply tariff 3 when passengers may be unaware of, or unable, to question the practice*."[130] It is also noted that "*this practice appears to be common, both when carrying wheelchair passengers and when carrying unsuspected passengers from the airport*".[131]

The TII recommended that the 50 per cent surcharge on distance and time rates be replaced with a flat fee of between $10–$15. The TII stated:

> *that the objective of this change is to better balance incentives for taking WAT work with the extra fare available for longer, high occupancy hires such as those from the airport. In addition, a flat fee should reduce the likelihood that MPTP users are charged the 'Tariff 3' surcharge.*[132]

[127] Taxi Industry Inquiry 2012, Draft report, May, p. 484.

[128] Taxi Industry Inquiry 2012, Draft report, May, p. 484.

[129] Taxi Industry Inquiry 2012, Draft report, May, p. 485.

[130] Taxi Industry Inquiry 2012, Draft report, May, p. 356.

[131] Taxi Industry Inquiry 2012, Draft report, May, p. 356.

[132] Taxi Industry Inquiry 2012, Final report, September, p. 202.

The TII also noted that the flat fee would improve the attractiveness of short fares, reduce the attractiveness of waiting for long periods at the airport (and longer fares in general) and reduce tariff 3 fraud.

4.7.2 STAKEHOLDER VIEWS

On revenue and costs estimates per HOV, we received a wide range of responses from our operator and driver surveys and from direct stakeholder discussions. HOV operators with established private arrangements with wheelchair passengers, or who have transportation contracts with agencies that assist people with disabilities, reportedly earned more than newer HOV operators who did not have such arrangements. The reported annual costs of providing a HOV service also varied widely. All the responses we received indicated that a HOV has higher vehicle, fuel, insurance and repair and maintenance costs than a standard taxi.

In our discussions with HOV drivers and operators in the metropolitan and urban zones, there were strong calls from newer WAT operators/drivers to not replace the current 50 per cent surcharge with a flat fee.[133] They argued that the higher HOV tariff is a key source of income for them and reported that they are not getting enough wheelchair jobs from NSPs and via private arrangements. WAT operators and drivers also advised that the HOV surcharge was a key source of income for taxi service providers on Friday and Saturday late nights. They argued that if the TII recommendation of a high flat fee were applied, they would lose short fare passengers. They also suggested that if the current surcharge on distance and waiting time rates is removed, HOV drivers may refuse long trips because earnings would be much lower.

4.7.3 COMMISSION'S ANALYSIS

While at certain times a large number of taxis queue at the airport and sometimes wait in the queue for over two hours, it is also important to understand the reasons for this driver behaviour and the extent to which it is a 'preference'.

[133] By 'newer WAT operators', we refer to those who entered the WAT/HOV taxi market through the release of licences in 2010.

Our discussions with HOV operators and the results from the driver surveys, do not lend themselves to a general conclusion that HOV drivers are targeting the airport solely in pursuit of longer fares. Various reasons for HOV drivers going to and from (and queuing at) Melbourne Airport have been suggested to us:

- higher HOV cost structures — to recover costs they would prefer to take their chances waiting for a higher tariff 3 or 4 fare
- lifting fee is not sufficient incentive. Usually, a HOV has to travel a distance to get to the pick-up destination, and the average trip for wheelchair passengers is shorter compared with the average HOV trip (at tariffs 3 and 4)[135]
- some inequity in dispatch of wheelchair jobs — for example newer HOV operators reported that NSPs are prioritising HOVs they assign, thereby leaving fewer jobs for the newer HOV operators and hence the tendency to queue at the airport instead
- poor decision making — queuing at the airport does not always result in as lucrative a fare as could have been earned elsewhere
- a large number of taxis are at the airport because they have delivered a passenger and are choosing to wait at the airport for their next fare and
- rest — a cafeteria, prayer room and some recreational facilities are available for taxi drivers at the airport.

Clearly, there are economic and non-economic reasons as to why HOV drivers choose to queue or not to queue at Melbourne Airport.

However, further analysis of the trip data shows that on average:

- more HOV drivers drive empty to the airport compared with standard taxi drivers (44 per cent compared to 31 per cent) and
- fewer HOV drivers leave the airport empty than standard taxi drivers (27 per cent compared to 40 per cent in a week)

Figure 4.10 shows this in more detail.

[135] For the metropolitan Melbourne zone, the average trip for wheelchair passengers in 2012 was 9 kilometres and 14 kilometres for HOV trips (at tariffs 3 and 4). The average WAT trip across all zones was 7.6 kilometres.

FIGURE 4.10 TAXI DRIVERS DRIVING TO AND LEAVING EMPTY FROM THE AIRPORT

Monday – Friday, Metropolitan zone, 2011 (October-December)

4.7.4 COMMISSION'S CONCLUSION

While there may be different motivations causing HOV drivers to queue at Melbourne Airport, our finding is that HOV drivers have a preference to stay and queue at the airport than standard taxi drivers.

We undertook further analysis using the current data in assessing what the flat fee should be to replace the 50 per cent surcharge. We recognise the issues raised by the

newer WAT operators against the impact of the flat fee on their revenues, but we believe that their revenues will be maintained for the following reasons:

- the new flat fee in chapter 6 is estimated to generate the same revenue as under the 50 per cent surcharge (on the distance and waiting rates) and
- we have also increased standard tariffs, these will help increase HOV revenue from the new standard tariffs.

We also expect that the implementation of the Central Booking Service (CBS) for WATs could improve the equitable dispatch of wheelchair jobs.[136]

We note that HOVs queuing at the airport is not relevant to the current urban and country taxi zones.

Chapter 6 discusses our new flat fee to replace the current tariffs 3 and 4.

4.8 MULTIPLE HIRE FARES

A multiple hire taxi trip is a type of share-ride involving two or more people who agree to share a taxi from a common starting point to separate destinations. All Australian states, except Tasmania, allow multiple hiring and require that each hirer pays no more than 75 per cent of the metered fare at their drop-off point. (Note: In Victoria, the Multi-Purpose Taxi Program (MPTP) subsidy cannot be claimed against multiple hire trips.)

The TII report commented on the use of the multiple hire service, as well as broader opportunities for the taxi industry to provide new and innovative share-ride services. In regard to multiple hire, the TII report noted the "*multiple-hire arrangement is little known and is confusing to passengers*" and "*appears that the prospect of a 25 per cent reduction in the fare is insufficient incentive to give up the privacy of not sharing a car"*.[137]

[136] The CBS is one of the Government reforms to improve accessibility of taxi services. The aim is to provide a more efficient and customer responsive booking for wheelchair passengers. All metropolitan Melbourne WAT operators are required to affiliate with the CBS and take bookings from that service.

[137] Taxi Industry Inquiry 2012, Draft report, May, p. 444.

More broadly, the TII commented that there is strong potential for multiple hire and taxi bus services but "*unnecessary red tape is preventing the growth of more flexible taxi services"*.[138] There was also a concern that regulations are not sufficiently flexible to allow for share-ride services.

The TII recommended that:

> *Fares should be restructured to:… simplify 'multiple hire' fare charging to support the industry to offer more flexible, innovative shared ride type services (for example, by allowing flat fee amounts for passengers in a shared ride trip that total more than the meter) and include provisions for MPTP members to use their subsidy for shared rides.*[139] [part of recommendation 12.9]

4.8.1 STAKEHOLDER VIEWS

The Australian Taxi Drivers Association (ATDA) considers that multiple hirings or share-rides can lift fare earnings per trip by 50 per cent, but there is a need to change current attitudes. While the ATDA submission does not explicitly state whose attitudes need to change, we note that the multiple hire option appears to be poorly understood by passengers and rarely promoted by operators and drivers — it may be that attitudes of both passengers as well as operators and drivers need to change. The ATDA also notes driver assaults, fare evasions and unjustified complaints (by passengers against drivers) all impede the maximisation of these services late at night. It suggests technology such as improved cameras, audio and recordings, to provide both passenger and driver security, can help solve these problems.[140]

A fleet operator suggests reducing the multiple hire fare to 60 per cent (that is, a 40 per cent discount) from the current 75 per cent of fare (a 25 per cent discount) to improve uptake of multiple hire.

[138] Taxi Industry Inquiry 2012, Draft report, May, p. 436.

[139] Taxi Industry Inquiry 2012, Final report, September, pp. 194 and 202.

[140] Australian Taxi Drivers Association submission, pp. 3–4.

4.8.2 COMMISSION'S ANALYSIS AND CONCLUSION

There is no trip data available on multiple hiring. Feedback from HOV operators and drivers confirms that there is limited use of multiple hiring. The key concerns regarding multiple hiring appear to be: safety for both drivers and passengers, lack of promotion about the service, need for an 'organiser' to gather willing passengers and the unattractiveness of the discount. We are not convinced that current minimal use of the multiple hire tariff is a fare setting problem. Under the Government's reforms, there will be scope for operators to offer new, innovative services, and to better promote the multiple hire option. In addition, going forward, the maximum fare regime will provide opportunity for operators to offer discounts greater than 25 per cent to attract more users. Also, changes to tariff levels (in particular, higher tariffs during Friday and Saturday night peaks) will make the multiple hire option cheaper and more attractive to users.

In our next fare review, we will invite suggestions about how multiple hire fares can become more attractive and how new fare arrangements can facilitate share-ride.

4.9 HOW OUR PROPOSED FARE STRUCTURE COMPARES TO OTHER JURISDICTIONS

The tariff structure we propose for the metropolitan and outer suburban taxi zones may be summarised as including:

- three separate tariff periods, which incorporate higher tariffs during periods of high demand or unsociable working hours
- additional charges for HOV trips and
- a multiple hire tariff.

This structure is similar to the fare structures of other Australian capital cities. Sydney, Brisbane and Perth have a 'day', 'overnight' and 'peak' tariff. The peak tariff in these cities is imposed as a fixed surcharge, whereas we are proposing higher flagfall and distance and waiting time rates. In addition, all capital cities have higher tariffs for HOV taxis carrying five or more passengers, but how the higher tariff is applied differs. For example, the extent to which the higher tariff applies to the flagfall, distance and waiting

time rates differs. Most of the capital cities apply the surcharge on the flagfall, distance and waiting time rates, but Melbourne and Perth apply the surcharge to distance and waiting time rates only.

For those capital cities which regulate the HOV tariff, these tariffs are 30 to 50 per cent higher than the equivalent standard tariffs. In Brisbane, the HOV tariff is deregulated and applies to pre-booked jobs only.

Finally, all the capital cities except Hobart have a multiple hire tariff. This is set at a maximum fare of 75 per cent of the metered fare.

We have also reviewed fare structures of overseas cities — details for London and New York are presented in box 4.1. These cities also have three separate tariff periods. The London fare structure is relatively complex, involving a flagfall which provides an initial distance and time allowance, and inclining block tariffs for two of its fare periods. Neither London nor New York have a HOV or multiple hire tariff (although New York does have some 'group ride' services; these are more akin to flat fare, share-ride schemes).

More detail on the fare structures in other Australian capital cities is presented in appendix D.

BOX 4.1 LONDON AND NEW YORK TAXI FARE STRUCTURES

Similar to our proposed Melbourne fare structure, there are three different tariff rates depending on when the trip is taken. Broadly there are day, night and peak rates.

In New York, additional distance and waiting time surcharges are applied for its night (50 US cents; 8pm to 6am) and peak tariffs (USD$1; Monday to Friday, 4pm to 8pm).

In London, tariffs for night and peak rates are more complex. First, while the level of the flagfall (£2.40) does not change, the included number of metres or time reduces from the day through to the peak rate. Second, the distance and waiting time rates vary depending on the level of the fare. For tariffs 1 and 2, London has an inclining block tariff structure – higher distance and waiting time rates apply to longer trips.

Key features of the London and New York fare structure are presented below.

	London[a]			New York
	Tariff 1 (6am-8pm weekdays)	**Tariff 2 (8pm-10pm weekdays & 6am-10pm weekends)**	**Tariff 3 (10pm-6am and pub. hols)**	
Flagfall	£2.40 (first 254.6m or 54.8s whichever comes first)	£2.40 (first 206.8m or 44.4s whichever comes first)	£2.40 (first 166.8m or 35.8s whichever comes first)	$2.50
Distance rate	£1.57/km (if fare < £17.20) £2.24/km (if fare ≥ £17.20)	£1.93/km (if fare < £20.80) £2.24/km (if fare ≥ £20.80)	£2.40/km (if fare < £25.20) £2.24/km (if fare ≥ £25.20)	$1.55/km[b] (standard tariff) $3.11/km (8pm-6am) $4.66/km (4pm-8pm weekdays)
Waiting time rate	43.8p/min (if fare < £17.20) 62.5p/min (if fare ≥ £17.20)	54.1p/min (if fare < £20.80) 62.5p/min (if fare ≥ £20.80)	67.0p/min (if fare < £25.20) 62.5p/min (if fare ≥ £25.20)	$0.50/min (standard tariff) $1.00/min (8pm-6am) $1.50/min (4pm-8pm weekdays)

[a] London distance and waiting time rates are based on 20 pence increments depending on distance travelled or time elapsed. For ease of presentation, we convert the fare structure to pounds per kilometre and pence per minute. [b] We have converted the regulated rate of 50 per 1/5 mile to a dollar per kilometre figure.

Source: Transport for London 2014, Tariffs, www.tfl.gov.uk/gettingaround/taxisandminicabs/taxis/taxifares/4870.aspx; Taxi Limousine Commission 2014, *Rate of fare*, www.nyc.gov/html/tlc/html/passenger/taxicab_rate.shtml, both accessed on 20 March 2014.

5 OTHER FARE MATTERS

KEY POINTS

LPG prices are volatile and are influenced by international prices for propane and butane. Prices often peak over our summer months, coinciding with increased demand in the northern hemisphere winter.

To manage fuel price risk, we:

- assume a high implied LPG price in the 2014 cost profile
- have included a 1 per cent cost buffer in the profile and
- allow for a 14.5 per cent industry return.

Melbourne Airport's proposal to increase the taxi parking fee will be limited to $2.70 (including GST).

5.1 THE VOLATILITY OF FUEL PRICES

The terms of reference require us to "*look for an appropriate way of dealing with volatile cost pressures in the industry such as fuel prices*".[141] Fuel is the single largest component of operational costs, representing a third of overall costs to taxi operators. Accordingly, we have considered appropriate ways of dealing with this significant volatile cost pressure.

[141] We focus on LPG prices since most taxis use this fuel. During our 2008 review, our survey of the industry indicated around 98 per cent of taxis use LPG. Our latest operator survey confirms this result.

In between periodic fare reviews and adjustments by regulators, operators of taxis are typically expected to absorb fluctuations in input costs, including fuel costs. This has been the case in Victoria, where operators have not had a fare adjustment since 2008. Since this last adjustment, while fluctuations in LPG prices have occurred, it has previously not generated significant stakeholder comment. However, the recent rise in prices in December 2013 has put a spotlight on LPG prices.

In considering movements in fuel prices, we have reviewed:

- the LPG price assumptions in the 2008 review, that is, the assumed LPG price which has been built into existing taxi fares since then
- movements in LPG prices since 2008 and whether there are any identifiable trends in LPG price movements, and
- the most appropriate regulatory response to fluctuations in LPG prices.

5.1.1 WHAT LPG PRICE IS BUILT INTO EXISTING TAXI FARES?

In our 2008 review, fuel costs were underpinned by information provided by operators. The operator survey provided information on the fuel price, fuel use (i.e. litres used per 100 kilometres) and annual kilometres travelled. This information was used to calculate total fuel costs for 2007. As our final decision was made in 2008, this figure was converted to an estimated fuel cost for 2008 based on historical movements in LPG prices. This resulted in us adopting an implied average LPG price of 77 cents per litre (cpl) (including GST). In other words, the fare adjustment made in 2008 assumed an LPG price of 77 cpl.

5.1.2 MOVEMENTS IN LPG PRICES SINCE 2008

We have considered two measures when reviewing LPG prices — movements in retail prices as reported by FUELtrac and movements in global prices of propane.[142]

[142] Australian retail LPG prices reflect international prices for propane and butane, the major constituents of LPG. Two widely used LPG price benchmarks are the Saudi Aramco wholesale contract prices for propane and butane, both set at the start of each calendar month.

Monthly retail LPG prices for Melbourne suggest prices usually move in a somewhat cyclical pattern (table 5.1). Namely, prices tend to peak during the northern hemisphere winter (our summer months). The month with the highest average LPG price of each year is underlined. This has tended to occur in January or December. The average monthly LPG price is consistently higher at the start and end of each calendar year.

TABLE 5.1 MELBOURNE METROPOLITAN AVERAGE MONTHLY LPG PRICES
2008 to 2013 (Incl GST)

	2008 c/L	2009 c/L	2010 c/L	2011 c/L	2012 c/L	2013 c/L
Jan	69.1	39.7	58.8	63.8	62.5	67.0
Feb	66.2	50.5	58.0	62.3	73.0	66.6
Mar	62.1	50.9	62.1	59.2	79.2	64.8
Apr	61.7	49.4	59.2	58.6	77.4	63.0
May	62.3	44.7	56.7	61.4	69.7	58.8
Jun	63.3	42.5	55.3	58.7	62.2	57.9
Jul	63.4	48.2	53.5	56.4	55.9	65.7
Aug	61.2	49.1	50.4	55.7	56.9	69.3
Sep	61.2	53.4	49.4	55.2	62.8	71.3
Oct	62.9	52.6	56.1	54.9	68.5	72.3
Nov	57.2	50.9	56.4	54.3	70.7	70.3
Dec	45.0	56.5	62.8	55.3	70.4	85.5
AVG	**61.3**	**49.0**	**56.6**	**58.0**	**67.4**	**67.7**

Data source: FUELtrac.

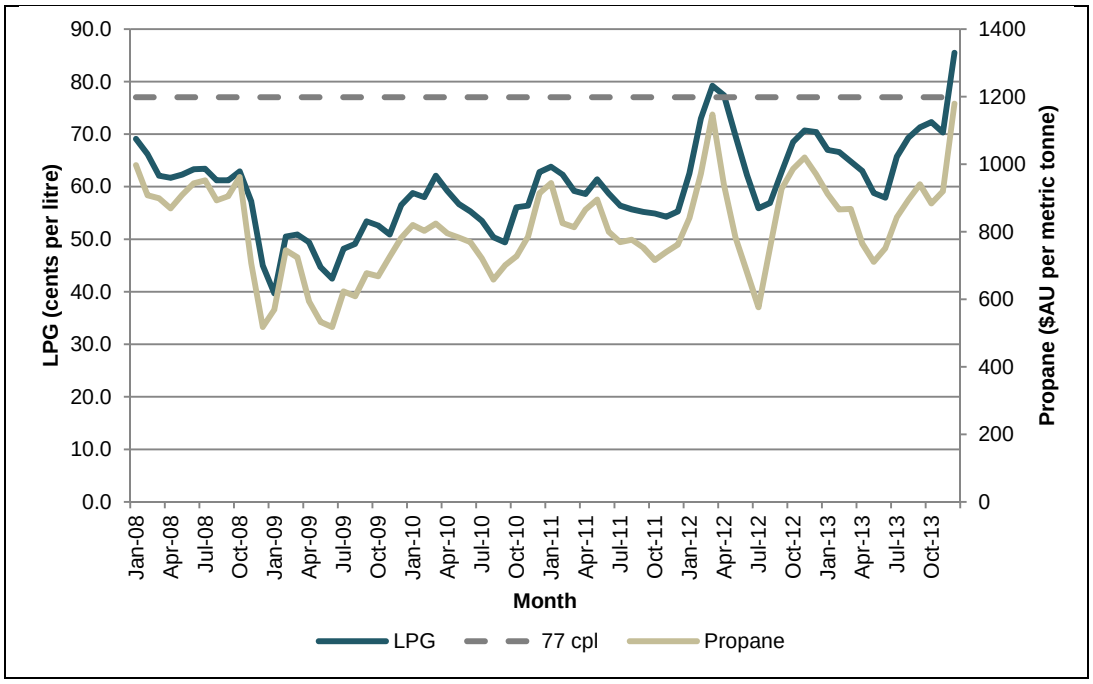
The retail price of LPG increased substantially in December 2013. Although increases in LPG prices are to be expected at this time of year, this increase appears to have been larger than in previous years. The average Melbourne metropolitan retail LPG price increased from 70.3 cpl in November to 85.5 cpl in December 2013. In the second half of December, the LPG price was observed to exceed 90 cpl in metropolitan Melbourne and $1 per litre in some Victorian country areas. This compares to an average of 67.7 cpl for 2013 and a minimum monthly average of 57.9 cpl in June 2013.

LPG AND PROPANE PRICES

The movements in Melbourne's retail LPG price generally reflect movements in the international price of propane (figure 5.1). Propane prices often spike at the start of the Australian summer in line with higher propane demand for heating purposes during the northern hemisphere winter — such was the case recently.[143]

The price spike observed in December 2013 was driven by an increase in the propane price (and butane — not shown in the figure), with the price increasing by 28 per cent between November and December 2013, from AU$920 to AU$1179 per metric tonne. Retail LPG prices again tracked the propane price increase.

FIGURE 5.1 LPG AND PROPANE PRICE MOVEMENTS
2008 to 2013



Data source: FUELtrac and http://gasenergyaustralia.asn.au/.

[143] New York Times 2014, *Too Much Winter, and Not Nearly Enough Propane,* 7 February, accessed at www.nytimes.com/2014/02/08/us/as-propane-prices-rise-worries-grow-for-millions-of-americans.html?hpw&rref=us&_r=0 on 10 February 2014.

Although the price of LPG increased at the end of 2013, it has since decreased significantly in early 2014.[144] The Saudi Aramco contract prices for propane and butane (widely used as LPG price benchmarks) have already decreased from their peaks in December 2013, and this is expected to continue as the northern hemisphere winter ends and demand eases.

IMPACT OF FUEL PRICE VOLATILITY ON TAXI OPERATORS

A key feature of figure 5.1 is the level of the retail LPG price relative to the implied LPG price currently incorporated in taxi fares. Since the fare adjustment in 2008, retail LPG prices in metropolitan Melbourne have only exceeded 77 cpl in three months (out of 72). Further, average monthly LPG prices have been significantly below 77 cpl for much of this time.[145] The implication is that over the past five years, LPG price spikes have been more than offset by sustained periods of relatively low prices, and operators have effectively been overcompensated through an implied LPG price of 77 cpl in the taxi fares that have been in place since 2008. Overall, we estimate the excess allowance for fuel costs to have been in the range of $15 500 to $24 500 (in nominal terms) over the last five years.[146]

We do note, however, that the volatility of LPG prices has increased over recent years. In addition, other cost movements and industry factors may have impacted on industry returns more generally. That is, the recent LPG price spike may be impacting on operators more than usual because fares have not been adjusted for a number of years while other costs have increased.

5.1.3 AUTOMATIC AND INTERIM ADJUSTMENT MECHANISMS

We have considered three mechanisms to account for volatile movements in LPG prices. Two of these mechanisms would adjust fares automatically, while the other would involve some form of interim fare review. We have also considered the

[144] Approximately 78 to 80 cpl, as per RACV 2014, LPG fuel prices, accessed at www.racv.com.au/wps/wcm/connect/racv/Internet/Primary/my+car/advice+_+information/fuel/petrol+prices/LPG on 20 March 2014.

[145] The Commission has also reviewed retail LPG prices in Geelong, Ballarat and Bendigo. While prices here tend to be slightly higher than Melbourne, the overall pattern of prices is similar.

[146] Based on annual taxi travel of 120,000-150,000 kilometres and fuel use of between 15 and 19 litres per 100 kilometres.

mechanisms applied by other regulators of taxi fares. There are very few examples of automatic or interim adjustment mechanisms being applied by taxi regulators.

The following adjustment mechanisms are discussed below:

1. Threshold-based approaches — fares would be adjusted automatically based on LPG prices moving beyond some threshold level
2. interim review approaches — scheduled but limited interim fare reviews would occur between general fare reviews and
3. summer LPG surcharge — a predetermined, fixed surcharge would be added to fares during the Australian summer period.

The application of threshold-based or interim review approaches should be symmetrical. That is, these mechanisms are not a means to only increase fares. We consider if the mechanism indicates decreased fuel costs, then consumers should benefit from these decreased costs through a reduction to fare levels.

Option 1: Threshold-based approach

Under this approach, fares would be adjusted if LPG prices moved beyond set threshold levels, say, if prices moved more than 20 per cent from that used in the fare review.

To implement this approach, we would need to determine how fares would be adjusted if the threshold were met. One approach is to consider movements in all costs, in recognition that other cost components may have changed. A cost index could be applied as a proxy for all costs.

We recommended the use of a taxi cost index in our 2008 fare review. A specific index (in contrast to a general price index, e.g. the Consumer Price Index) may more closely reflect industry costs, and therefore any fare adjustments will reflect industry cost movements, rather than general price movements.

While the approach may be useful to adjust fares on an annual basis in between detailed fare reviews, it is a less useful mechanism in accounting for what may sometimes be volatile LPG price movements. For example, LPG price movements will not flow through to fare adjustments on a one-for-one basis (i.e. they will be ‘dampened’), since the index reflects all major taxi costs, not just LPG.

To address some of the limitations of applying a cost index, we have also considered adjusting fares based on changes in the LPG price only. It may be possible to set such an LPG surcharge at the same time as setting the threshold level, thereby giving industry and customers some certainty on the fare adjustment to be implemented *if* the threshold is met. In contrast to using a cost index, an LPG surcharge could be implemented on a more timely basis (particularly if the level of the surcharge is predetermined) and as a result fare adjustments may more directly reflect the immediate cost pressures faced by operators.

A threshold based LPG surcharge was developed by Transport for London (TfL).[147] In July 2008, TfL set a 154 pence per litre trigger for the diesel price, which if exceeded prior to February 2009 would have resulted in a 50p fare increase.[148] In the first half of 2008, UK diesel prices averaged around 121 pence per litre — diesel prices would have to have increased by 27 per cent for the 154 pence trigger to be reached.[149] The 50 pence charge was to be added to each fare using a button on the meter otherwise used to add discrete charges such as the booking fee. The trigger was not met and no fare adjustment was made beyond the usual annual fare adjustment determined by TfL.

Option 2: LPG-based interim review

Rather than relying on a threshold to be met, an alternative is to schedule interim fare reviews, say, every 6 months after a 'full' fare review. These reviews could focus solely on LPG price movements. Scheduled interim reviews would provide an opportunity for fares to be adjusted to reflect short term LPG price movements.

Given the volatility in LPG prices, fare adjustments may either be positive or negative depending on the timing of the interim review. For example, six months after the 2008 fare review LPG prices fell by approximately 45 per cent. If an interim review had been adopted, fares would have moved downwards. In addition, having scheduled interim

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147 Transport for London is responsible for the planning and delivery of London's public transport system. This includes buses, London Underground and Overground rail services, Docklands Light Rail and river services. Transport for London also regulated taxi and private hire cars, and runs London's congestion charging scheme.

148 Transport for London 2008, *London taxi fares to increase if fuel prices reach 154p per litre*, 31 July, accessed at www.tfl.gov.uk/static/corporate/media/newscentre/archive/8902.html on 28 January 2014.

149 See Department of Energy and Climate Change (UK), *Energy Trends: March 2013*, Special Feature Article – Petrol and Diesel Prices and www.gov.uk/government/uploads/system/uploads/attachment_data/file/170731/et_article_petrol___ diesel_prices.pdf to access 2008 diesel prices.

reviews does not preclude the fare regulator from determining a threshold for adjusting fares. Because there are costs in implementing a fare change (e.g. resetting meters, printing of fare schedule stickers, etc), any fare change would need to be sufficient to cover these costs — these implementation costs are also applicable under the threshold based approach (option 1).

Since 2008, the Independent Pricing and Regulatory Tribunal of NSW (IPART) has conducted an interim fare review ('mid-year fuel review') in December of each year based on LPG costs.[150] Since 2010, the threshold for recommending a fare adjustment has been 20 per cent (increase or decrease). That is, compared to the fuel price adopted in its last review, the average daily LPG price in the 6 months following the review must have changed by 20 per cent.[151] No fare adjustment has been recommended in each of the six mid-year fuel reviews conducted by IPART.

In our submission to the TII's draft report, we agreed with the TII's draft recommendation that interim reviews be undertaken when certain cost thresholds are met.[152] It is important to understand the context for this position in our submission. At the time, the frequency of fare reviews was uncertain and four years had passed since the last fare review in 2008. In an environment where the timing of fare reviews is infrequent and uncertain, interim reviews become more important.

We are now in an environment where fare reviews will be conducted more frequently. Under the amended Transport Act, we are required to complete a fare review at least every two years. This allows more timely consideration of any cost movements and therefore reduces the need for interim reviews.

Option 3: Summer LPG surcharge

Another approach is to focus on the spike in retail LPG prices that often (but not always) occurs over the Australian summer months, and to set an appropriately sized surcharge that applies only over this limited period.

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[150] Independent Pricing and Regulatory Tribunal of NSW 2013, *Review of Maximum Taxi Fares and Review of Annual Sydney Taxi Licences from July 2014,* Draft Report, December.

[151] The threshold adopted for 2008 and 2009 was 10 per cent. See Independent Pricing and Regulatory Tribunal of NSW 2009, *Mid-year review of fuel costs for taxis in NSW*, December, p.2.

[152] Essential Services Commission 2012, *Submission to the Victorian taxi industry inquiry*, July, p. 11, available from www.esc.vic.gov.au/Taxis/Taxi-Industry-Inquiry/publications.

A summer surcharge would not require additional taxi meter adjustment if installation of the surcharge coincided with any regular periodic fare adjustment. A scheduled introduction and removal of the surcharge would also result in lower administrative and implementation costs, and provide a more simple system.

However, a risk of this approach is the ability to forecast LPG price levels over the summer period. The volatility of prices indicates that this would not be a straightforward exercise. For example, the LPG price may not rise (or rise as substantially as expected) over the summer period. Under this approach, the surcharge would be applied regardless and therefore could impose unnecessarily higher fares on taxi users.

CONSIDERATIONS WHEN IMPLEMENTING AN ADJUSTMENT MECHANISM

If an adjustment mechanism were to be implemented, we would need to consider the following:

- There are costs involved in adjusting taxi fares, including taxi meter reprogramming and administrative costs. These costs reduce the benefit of more frequent fare adjustments.

  This is particularly important in relation to threshold based options, because these should include provisions to remove the adjustment should the LPG price subsequently move back within the threshold. Since changing the fare schedule involves costs, we would want to limit the number of times fares are changed between detailed fare reviews. Given the volatility of LPG prices, any thresholds would need to be set so as to avoid undue volatility being introduced into taxi fares (in both an upward and downward direction).
- To apply a surcharge, we would need to consider whether it is applied as a fixed (absolute) surcharge or a percentage surcharge. Each surcharge provides different incentives for operators, drivers and passengers. We would need to consider such consequences when applying a surcharge.

OUR PREFERRED APPROACH

Automatic and interim adjustment mechanisms are costly to implement and difficult to get right. For these reasons, we do not consider implementing an adjustment mechanism for taxi fares is the best approach for dealing with the risks of fuel volatility.

Rather than attempting to remove the fuel risk through an adjustment mechanism, our preferred approach is to allow the industry to manage the fuel price risk, and to compensate them for managing this risk. This approach is outlined in the next section.

5.1.4 HOW WE HAVE DEALT WITH FUEL RISK IN THIS REVIEW

We acknowledge the risks for operators from movements in LPG prices, which are not easily contracted away for most taxi operators. It is appropriate that the industry is compensated for carrying this risk in the absence of automatic fare adjustments to account for changes in observed LPG prices.

To compensate for this risk, we have taken a cautious approach in the following three areas:

- First, we have assumed an above trend average LPG price in the fuel costs we used in developing the 2014 cost profile (see section 3.5.5). Our cost profile assumes implied LPG prices of 87 to 91 cpl (GST inclusive) (up from 77 cpl) – this is significantly above current LPG prices.[153]
- Second, we have included an additional 1 per cent buffer to the overall cost profile (see section 3.5.5).
- Third, we have allowed for a 14.5 per cent industry rate of return, which is at the high end of the reasonable range (8 to 15 per cent) as determined by benchmarking against businesses of similar size, operational characteristics and risk profiles as the taxi industry (see section 3.6.1). This rate of return includes an allowance for managing the risk in LPG price movements. (Note: If we removed this risk through an automatic adjustment of fares, as preferred by many in the industry, we would lower the allowed rate of return – resulting in a smaller fare increase).

This cautious approach, in favour of the industry, provides sufficient scope for the industry to manage the risk of movements in LPG prices. If we observe LPG prices holding above our assumed price for a sustained period (without offsetting periods of lower fuel prices), two additional options remain. We could bring forward our next fare review, or we could account for any under-recovery in our next fare review.

[153] Approximately 78 to 80 cpl, as per RACV 2014, LPG fuel prices, accessed at www.racv.com.au/wps/wcm/connect/racv/Internet/Primary/my+car/advice+_+information/fuel/petrol+prices/LPG on 20 March 2014.

5.1.5 COMMISSION'S CONCLUSIONS

Fare adjustment mechanisms designed to account for LPG price volatility would be costly to implement and difficult to get right. Very few jurisdictions employ these mechanisms, and for those that do, actual price movements have been insufficient to trigger a fare adjustment.

The approach we have adopted in this review for determining taxi fares has provided adequate compensation to the industry for any risks associated with fuel volatility. Under these conditions, we believe the industry is well placed to manage fuel price volatility between this and the next review.

We also note that we will undertake more frequent fare reviews in the future. This further mitigates the need for specific mechanisms to deal with LPG price movements.

5.2 EXTRA FARE CHARGES

In addition to tariff rates and the time at which they apply, there are other aspects of taxi fares that require a decision, namely booking fees and holiday rates. We must also assess how Melbourne Airport's charge on taxis will be passed on to taxi passengers.

5.2.1 THE BOOKING FEE

A booking fee is added to the taxi fare when a pre-booked taxi is ordered on the basis that operators and drivers need to be compensated for the travel undertaken, without a paying passenger, from the point where they accept the job to the actual pick-up location. Separate booking fees apply to non-premium taxis (standard and HOVs) and premium taxis.

The following booking fees currently apply:

- $2.00 — non-airport pick-up, metropolitan and outer suburban taxi zones
- $3.00 — airport pick-up, all taxi zones

- $2.10 — non-airport pick-up, urban and country taxi zones and
- $11.00 – premium taxi[154], all taxi zones.

In the time available for this review, we have not assessed the relevance or appropriateness of the booking fee. We note that as competition in the market increases over time, the booking fee is one aspect of the overall fare structure that could be reformed more broadly (see chapter 8).

For these reasons, booking fees remain unchanged and will be a major focus in our next review.

5.2.2 HOLIDAY RATES

Across all taxi zones in Victoria, a holiday rate (surcharge) applies all day Christmas Day, Boxing Day, from 6pm on New Year's Eve and all day New Year's Day. The existing late night rate (midnight to 5am metropolitan and outer suburban zones and midnight to 6am urban and country zones) does not apply during the holiday period.

A 20 per cent holiday rate applies in the metropolitan and outer suburban zones (this rate only applies to the distance and waiting time rates). In the urban and country zones, a flat $3.70 surcharge applies.

We have been unable to conduct a full and proper assessment of the application of holiday rates in the time available for this review. On this basis, existing holiday rate arrangements should be maintained with our new peak tariff for the metropolitan and outer suburban zones applying all day on Christmas Day, Boxing Day and from 6pm on New Year's Eve and all day New Year's Day.

For urban and country zones, we have uplifted the current holiday rate of $3.70 by the overall fare increase (12.5 per cent) we determined for the metropolitan zone (and rounded to the nearest 10 cents). The new holiday rate for urban and country zones is $4.20.

[154] Premium taxis are taxis of a higher than average quality in terms of presentation and comfort. The requirements for these premium service taxis are developed by individual NSPs. When provided with a network endorsement for a taxi, the TSC issues a 12 month permit for premium service at a charge of $23.60. The permit allows a driver of a taxi with a premium service permit to charge the passenger an $11 (unmetered) surcharge when the hiring has been pre-booked through the approved network and the passenger has specifically requested a premium service.

5.2.3 THE MELBOURNE AIRPORT TAXI PARKING FEE

All major airports across Australia charge taxis an access or taxi parking fee. This fee is generally passed through to the passenger each time the passenger leaves the airport, except at Melbourne Airport. In the case of Melbourne Airport, of the $2.00 currently paid by the passenger, the airport receives $1.32 and the taxi driver retains $0.68. In other words, Melbourne Airport imposes $1.32 on drivers who use the parking facilities provided at the airport.

Table 5.2 summarises the airport taxi parking fees across Australia.

TABLE 5.2 AUSTRALIAN AIRPORTS' TAXI FEES (INCL. GST)
As at March 2014

	Customer pays ($)	Airport receives ($)	Driver receives ($)
Melbourne	2.00	1.32	0.68
Sydney	3.75	3.75	0.00
Brisbane	3.30	3.30	0.00
Perth	2.00	2.00	0.00
Adelaide[a]	2.00	0.40	0.00

[a] Adelaide Airport retains 40 cents of the taxi parking fee. The rest ($1.60) is paid to the Taxi Council South Australia for taxi concierge services in Adelaide and for driver education.

Sources: Sydney Airport 2014, *By taxi*, www.sydneyairport.com.au/go/by-taxi, accessed 6 March 2014; Brisbane Airport 2014, *Parking and transport*, www.bne.com.au/parking-transport/transport-options, accessed 6 March 2014; Perth Airport 2014, *Taxis*, www.perthairport.com.au/ToTheAirport/Taxis.aspx, accessed 6 March 2014; Adelaide Airport 2014, *To and from*, www.adelaideairport.com.au/air-travel/to-and-from#parking, accessed 6 March 2014. [Personal communication], Sydney Airport, 3 March 2014; [Personal communication], Brisbane Airport, 6 March 2014; [Personal communication], Perth Airport, 6 March 2014; [Personal communication], Department of Transport, South Australia, 13 March 2014.

MELBOURNE AIRPORT'S INTENTION TO INCREASE THE FEE

In its submission to this review, Melbourne Airport advised that it will be increasing the taxi parking fee paid by drivers from $1.32 to $2.70 (incl. GST). Melbourne Airport suggested the fee paid by passengers should increase to $3.40 in order to provide a $0.70 payment to the driver. Table 5.3 summarises the current and proposed taxi parking fee.

TABLE 5.3 MELBOURNE AIRPORT'S TAXI PARKING FEE (INCL. GST)

	Fee as at March 2014 ($)	Proposed fee ($)
Customer pays	2.00	3.40
Airport receives	1.32	2.70
Driver receives	0.68	0.70

Source: Melbourne Airport 2014, *Submission to the Taxi Fare Review 2013-14*, January.

Melbourne Airport stated the following reasons for the increase in the taxi parking fee:

- It provides two waiting areas for taxis which have a holding capacity for 680 and 200 vehicles respectively, occupying approximately 26 000 square meters of land. The waiting areas ensure a sufficient quantity of taxis to meet passenger demand during peak periods.
- It provides 'additional infrastructure' for drivers within the airport precinct, including a café, a multi-faith prayer room, restrooms, car washing facilities and a petrol station. These facilities are regularly cleaned and maintained at the airport's expense.
- It has made 'significant investments' to its road networks which benefit taxi operators and their customers without impacting on taxi charges. These investments include:
  - an extension of Francis Briggs Road (to improve taxi traffic flow)
  - an additional two lanes in Terminal Drive (the main entry road) and
  - in 2014 an extension of Airport Drive which will provide access to the airport precinct from the M-80 Ring Road.[155]

Melbourne Airport also stated that it would implement its revised taxi parking fee, as charged to drivers, concurrently with the introduction of the new taxi fares. It would communicate the changed fee arrangements directly with customers through:

- signage at ranks
- preparation and funding of in-vehicle stickers and

[155] Melbourne Airport 2014, Submission to the Taxi Fare Review 2013-14, January.

- web-based materials detailing the charge and its rationale.

THE COMMISSION'S ANALYSIS AND CONCLUSION

Melbourne Airport's taxi parking areas and access roads are on Commonwealth land that is leased by the airport. Consequently, Melbourne Airport unilaterally has the ability to set the terms and conditions of access to landside vehicle services. Nonetheless, the Commission sought information from Melbourne Airport in order to better understand its intended fee increase and how this would benefit customers.[156] Melbourne Airport was unwilling to provide the Commission with this information.

The airport parking facilities provide benefits to numerous parties. It ensures taxis can be readily available for passengers. Drivers have an area where they can wait comfortably. The airport benefits from the smoother throughput of passengers and vehicular traffic.

Despite all parties benefiting from the taxi pick-up services, the Commission does not have sufficient details to determine how these benefits are distributed. Further, the Commission does not have the power to prevent the airport charging drivers an airport parking fee.

We are of the view that the only fee to be passed through to the passenger should be the $2.70 imposed on drivers by Melbourne Airport.

We recommend that the Victorian Government consider writing to the relevant Commonwealth Minister suggesting that the Melbourne Airport taxi parking fee be referred to the ACCC for investigation in more detail.

[156] See Commission correspondence on ESC website, www.esc.vic.gov.au.

6 METROPOLITAN AND OUTER SUBURBAN FARES

KEY POINTS

We have applied the 12.5 per cent increase in average taxi fares to our proposed three-period fare structure for the metropolitan and outer suburban taxi zones. We have maintained booking fees at their current levels.

For the metropolitan and outer suburban zones, we replace the higher distance and waiting time rates for HOV trips (the current tariffs 3 and 4) with a $14 flat add on fee.

6.1 INTRODUCTION

Current zoning arrangements are being revised by the Taxi Services Commission (TSC). As our review was conducted prior to the finalisation of the new zoning arrangements, we have identified new fares based on the existing zones.

For the metropolitan zone, we determine new maximum fares based on the methodology and analysis presented in chapters 3 to 5 of this report. For the outer suburban zone, since its fare structure is currently the same as the metropolitan zone, we apply the same fares as in the metropolitan zone.

Chapter 7 sets out fares for the urban and country zones.

6.2 ARRIVING AT THE NEW MAXIMUM FARES

From our analysis of the available information, we have found that:

- overall, taxi fares should increase by 12.5 per cent
- short fare refusals are a bigger problem than refusals of longer trips. Until more sophisticated fare structures can be implemented (see chapter 8), this suggests a rebalancing of fares that increases the flagfall relative to the distance rate in order to make short fares relatively more attractive than under the current fare structure
- there are supply and demand imbalances at different times of the day and week, in particular, high demand late on Friday and Saturday nights is not matched by taxi supply
- drivers of HOV taxis are more likely to queue at Melbourne Airport and our analysis shows that hourly returns for longer trips are higher compared to shorter trips — these observations suggest fares should be rebalanced to increase the returns from shorter trips and
- the existing surcharge on distance and waiting time rates (tariffs 3 and 4) for HOV trips should be replaced with a flat fee.

A key task in developing new fares for the metropolitan and outer suburban zone was applying the 12.5 per cent increase in fares and taking into account the above findings to adjust the actual fare levels for each fare component (i.e. flagfall and distance rates) and for each of the new tariff periods (day, overnight and peak). There are many combinations of flagfall and distance rates for each of these periods consistent with a 12.5 per cent fare increase. To choose between these many options, we have done two things.

First, we have undertaken an impact analysis of the different options by comparing fare level outcomes for different trip lengths at different times of the day and week. The options tested include those suggested by some operators and drivers, including relatively large increases in the flagfall to implement a minimum fare. We compare the options to each other, as well as to current fares. This helps us to rule out some options with seemingly extreme outcomes.

For example, we tested options that include a $10 flagfall. This flagfall rate necessitates large reductions in distance and waiting time rates — that is, with a $10

flagfall, the peak period distance rate of $1.47 per kilometre is less than the existing regular distance rate ($1.617 per kilometre). This could have perverse outcomes on long fare refusals at these late times. We have been told that longer trips are refused late at night because the chance of getting a return fare is low. Further, the consequences of these very high flagfalls applying at all times are unpredictable and, in particular, the distributional impacts are unclear.

Second, we have developed an industry model to consider market outcomes from different fare structures and levels (box 6.1).

We also test the sensitivity of the industry model results by varying key model assumptions and considering what impact these have on the outputs of the model. Importantly, we find that the model results are extremely sensitive to assumptions regarding two crucial variables — namely, customers' sensitivity to changes in fares (the 'elasticity' of demand), and the value of time attached to customers waiting for a taxi.

Because the model is so sensitive to assumptions about these two parameters, we have not relied on the model during this review. Nevertheless, it is a valuable tool which we will continue to refine.

We will shortly release a separate paper which discusses the industry model and summarises the analysis we conducted using it.

BOX 6.1 OUR INDUSTRY MODEL – A TOOL TO ASSESS FARE STRUCTURES

To assist in analysing the impacts of different fare levels and structures, we engaged the Centre for International Economics to develop a model of the metropolitan taxi industry. The model shows impacts on taxi trips taken, taxi occupancy rates, industry revenue, operator revenue, waiting times for taxis and consumer and society benefits from different fare levels and structures.

Continued next page

BOX 6.1 (CONTINUED)

Underpinning the model are entry (supply), quality and demand equations. The cost profile (as well as industry returns) we used to calculate the required fare increase forms a key component of the entry equation. The entry equation determines the number of taxis choosing to operate for a particular hour and shift. Taxis will choose to operate if, for that hour or shift, profits can be generated, i.e. if the farebox revenue is greater than costs incurred.

The demand equation links the quantity of taxi services demanded (measured in trip kilometres) to the fare level and quality of taxi services. We use waiting time (the time users have to wait for a taxi) as a proxy for quality. Waiting time is not constant across shifts – during periods of high demand waiting time will increase. The detailed trip data we have underpins the demand equation.

To ensure the model provides a reasonable representation of actual industry outcomes, we test and calibrate the model against actual supply and demand information. This process indicates a close match between the model's results and actual data.

6.2.1 NEW MAXIMUM FARES FOR STANDARD TRIPS

Based on our analysis, we have calculated the fixed and variable (distance and waiting time) rates for the metropolitan and outer suburban zones that best address the findings listed above, and are consistent with a 12.5 per cent average increase in taxi fares (table 6.1). These new maximum fares apply to standard trips. Fares for HOV trips are reported in the next section.

TABLE 6.1 METROPOLITAN AND OUTER SUBURBAN FARES

	Tariff 1 'Day' (9am–5pm)	**Tariff 2** 'Overnight' (5pm–9am, excluding peak)	**Tariff 3** 'Peak' (Fri & Sat 10pm–4am)
Fare component			
Flagfall ($)	4.20	5.20	6.20
Distance rate ($/km)	1.622	1.804	1.986
Waiting time ($/min if speed < 21 km/hr)	0.568	0.631	0.695

Our new maximum fare structure:

- increases the flagfall relative to the distance rate in all tariff periods to improve incentives for shorter trips, as per our findings on short fare refusals and returns from longer trips. Currently, the ratio between the flagfall and distance rates is 2.0 ($3.20 / $1.617) under the current tariff 1 and 1.6 ($3.20 / $1.94) under the late night surcharge (tariff 2). Our new fares will lift this ratio to between 2.6 and 3.1.
- has only a limited impact (of about $1 per trip) on day time travel. At these times, the data suggests there is no notable imbalance between supply and demand.
- introduces a new 'overnight' tariff rate between 5pm and 9am (excluding peak times) reflecting periods of higher demand for taxis as well as the less sociable working hours for taxi drivers. The tariff 2 distance and waiting time rates carry an 11 per cent premium over the standard 'day' rate.
- extends the 'peak' period on Friday and Saturday nights from 12am–5am to 10pm-4am which more accurately reflects the period of highest demand. The premium on the distance and waiting time rates, when compared to the 'day' rate is lifted from the current 20 per cent to 22.4 per cent.

6.2.2 DETERMINING THE HOV FLAT FEE

Currently, HOV taxis can charge an additional 50 per cent on the standard distance and waiting time rates when they are carrying five or more passengers or when a HOV is specifically requested by the hirer (wheelchair passengers do not pay the higher

HOV tariffs). We are required by the a*mended Transport Act* to consider replacing the current HOV tariffs with a flat fee.

Using 2012 HOV trip patterns, we calculated a flat fee which produced equivalent (HOV trip) revenue that would be generated by a 50 per cent surcharge on the distance and waiting time rates of the new fares.

This calculation resulted in a flat fee of around $14. Based on this, we set the flat fee at $14.

Our analysis shows that under the new fare structure, the average fare per kilometre for HOV trips will be $3.59 compared to $3.28 based on 2012 trip data. It is important to note that this conclusion is based on existing trip distribution patterns for HOVs. The new fare structure is specifically designed to alter that pattern of trips such that we expect the actual average fare to be higher than we have calculated using past trip patterns.

Some stakeholders expressed concerns about the TII's preference for a flat fee creating perverse incentives such as switching short fare for long fare refusals. We will monitor the implementation of the new tariff structure and take into account observed behaviours during our next taxi fare review.

6.3 NEW MAXIMUM FARES

Bringing together the new fares for standard and HOV trips and extra charges, the new tariff schedule for the metropolitan and outer suburban zones is presented in table 6.2. These are maximum fares — service providers will be free to offer discounts off these rates.

TABLE 6.2 METROPOLITAN AND OUTER SUBURBAN MAXIMUM FARES

	Tariff 1 'Day' (9am–5pm)	Tariff 2 'Overnight' (5pm–9am, excluding peak)	Tariff 3 'Peak' (Fri & Sat 10pm–4am)
Standard and HOV taxis			
Flagfall ($)	4.20	5.20	6.20
Distance rate ($/km)	1.622	1.804	1.986
Waiting time ($/min if speed < 21 km/hr)	0.568	0.631	0.695
Other fare components (applicable to tariffs 1, 2 and 3)			
HOV fee[a]	$14.00	$14.00	$14.00
Booking fee	$2.00	$2.00	$2.00
Airport booking fee	$3.00	$3.00	$3.00
Airport rank fee	$2.70	$2.70	$2.70
Holiday rate[b]	Tariff 3 to apply	Tariff 3 to apply	Tariff 3 to apply

[a] For taxis carrying 5-11 passengers, or non-wheelchair hiring passengers where the hirer specifically requests a larger than standard taxi regardless of the number of passengers carried. [b] Holiday rates apply all day Christmas Day, Boxing Day, from 6 pm on New Year's Eve and all day New Year's Day.

6.4 IMPACT ANALYSIS

These new taxi fares will impact users differently depending on the time of a taxi trip, the distance of the trip and whether the trip is at standard or HOV rates. In terms of the time of the trip, the existing fare structure has two time periods:

- 5am to midnight (tariff 1) and
- midnight to 5am (tariff 2).

In contrast, our fare structure has three time periods:

- a 'day' fare period (9am to 5pm)
- an 'overnight' fare period (5pm to 9am, excluding the peak fare period) and
- a 'peak' fare period (10pm to 4am on Friday and Saturday nights).

For example, trips between 5pm and 10pm for all days currently pay tariff 1 (the lowest tariff). Under the new fare structure, these trips will move to the overnight tariff.

These changes in the tariff time periods are reflected in our impact analysis, where we present fare outcomes for different times and trip lengths, and for standard and HOV trips. We present fare outcomes across a range of typical trips, namely 5, 10, 20 and 40 kilometres, and over different time periods. (Note: The average standard taxi trip is 9.5 kilometres.) Details on the distribution of trip distances in the metropolitan zone are presented in table 6.3.

TABLE 6.3 DISTRIBUTION OF TAXI TRIP LENGTHS
Metropolitan taxi zone, 2012

Trip length	Proportion of metropolitan trips (%)
< 5 km	48
5 – 10 km	22
10 – 20 km	14
20 – 40 km	14
> 40 km	2
Total	**100**

Our impact analysis is presented in tables 6.4 and 6.5.

Looking at standard taxi fares, the impact analysis shows that:

- for each time period, the proportionate increase in fares is lower for longer trips. There are even some fare reductions over very long trips. This reflects our fare structure rebalancing to increase returns from shorter trips as recommended by the TII
- for each trip distance, the proportionate increase in fares is lowest for:
  - trips that occur between 12am to 5am (excluding Saturday and Sunday) – these trips move from the current peak tariff (tariff 2) to the new overnight tariff, followed by
  - trips that occur between 9am to 5pm – these trips move from the current off peak tariff (tariff 1) to the new day tariff and

- for each trip distance, the proportionate increase in fares is highest for trips that occur between 10pm to midnight on Friday and Saturday nights – these trips move from the current off peak tariff to the new peak tariff.

Under the new fare structure, HOV fares are equivalent to the standard fares plus the $14 flat fee. Under these fares, the impact analysis gives similar results as per the standard fare analysis, namely:

- for each time period, the proportionate increase in fares is lower for longer trips. There are even some fare reductions over very long trips
- for each trip distance, the proportionate increase in fares is lowest for:
  - trips that occur between 12am to 5am (excluding Saturday and Sunday) and
  - trips that occur between 9am to 5pm
- for each trip distance, the proportionate increase in fares is highest for trips that occur between 10pm to midnight on Friday and Saturday nights.

TABLE 6.4 IMPACT ANALYSIS – METROPOLITAN AND OUTER SUBURBAN ZONES

Standard taxi rates

Trip distance		Time of taxi trip (Non-peak days)					(Non-peak days)	(Fri & Sat)	(Sat & Sun)
		12am–4am	4am–5am	5am–9am	9am–5pm	5pm–10pm	10pm–12am	10pm–12am	12am–4am
		($)	($)	($)	($)	($)	($)	($)	($)
5 km	Current	15.62	15.62	13.55	13.55	13.55	13.55	13.55	15.62
	New	16.75	16.75	16.75	14.58	16.75	16.75	18.91	18.91
	Increase	1.13	1.13	3.20	1.03	3.20	3.20	5.36	3.29
10 km	Current	26.67	26.67	22.77	22.77	22.77	22.77	22.77	26.67
	New	27.03	27.03	27.03	23.83	27.03	27.03	30.23	30.23
	Increase	0.36	0.36	4.26	1.06	4.26	4.26	7.46	3.56
20 km	Current	48.79	48.79	41.20	41.20	41.20	41.20	41.20	48.79
	New	47.59	47.59	47.59	42.32	47.59	47.59	52.87	52.87
	Increase	-1.20	-1.20	6.39	1.12	6.39	6.39	11.67	4.08
40 km	Current	93.02	93.02	78.07	78.07	78.07	78.07	78.07	93.02
	New	88.73	88.73	88.73	79.30	88.73	88.73	98.15	98.15
	increase	-4.29	-4.29	10.66	1.23	10.66	10.66	20.08	5.13

TABLE 6.5 IMPACT ANALYSIS – METROPOLITAN AND OUTER SUBURBAN ZONES

HOV taxi rates

Trip distance		Time of taxi trip (Non-peak days)					(Non-peak days)	(Fri & Sat)	(Sat & Sun)
		12am–4am	4am–5am	5am–9am	9am–5pm	5pm–10pm	10pm–12am	10pm–12am	12am–4am
		($)	($)	($)	($)	($)	($)	($)	($)
5 km	Current	21.78	21.78	18.70	18.70	18.70	18.70	18.70	21.78
	New	30.75	30.75	30.75	28.58	30.75	30.75	32.91	32.91
	Increase	8.97	8.97	12.05	9.88	12.05	12.05	14.21	11.13
10 km	Current	38.32	38.21	32.50	32.50	32.50	32.50	32.50	38.32
	New	41.03	41.03	41.03	37.83	41.03	41.03	44.23	44.23
	Increase	2.71	2.82	8.53	5.33	8.53	8.53	11.73	5.91
20 km	Current	71.40	71.40	60.10	60.10	60.10	60.10	60.10	71.40
	New	61.59	61.59	61.59	56.32	61.59	61.59	66.87	66.87
	Increase	-9.81	-9.81	1.49	-3.78	1.49	1.49	6.77	-4.53
40 km	Current	137.56	137.56	115.30	115.30	115.30	115.30	115.30	137.56
	New	102.73	102.73	102.73	93.30	102.73	102.73	112.15	112.15
	Increase	-34.83	-34.83	-12.57	-22.00	-12.57	-12.57	-3.15	-25.41

7 URBAN AND COUNTRY FARES

KEY POINTS

For the urban and country taxi zones, we have uniformly applied the 12.5 per cent increase to each tariff component, excluding the booking fees.

7.1 INTRODUCTION

We observe that the operational costs of providing a taxi service in the metropolitan zone have increased since the last fare decision in 2008 (chapter 3 outlines the new approach to setting fares). Having re-established the operational cost base for 2014 in this review, we have also adopted a rate of return for the whole industry and have accounted for the mandated sharing of farebox revenue between the driver and operator (55:45). Based on this we have arrived at an average 12.5 per cent increase to the metropolitan taxi fares.

We acknowledge that there are specific differences between taxi markets in the metropolitan and urban and country zones, but they are broadly similar in their operations. Given tight time constraints and limited detailed information on the urban and country taxi markets, we have decided to use the fare increase in the metropolitan zone as a flat uplift factor in the urban and country zones.

As a result, for the urban zone, we apply a flat 12.5 per cent uplift to all existing urban fare components (excluding booking fees). We do not make any changes to the urban zone fare structure at this stage.

For the country zone[157], we also apply a flat 12.5 per cent uplift to all existing country fare components (excluding booking fees), maintaining the existing fare structure.

7.2 NEW URBAN AND COUNTRY FARES

The fare schedule for the urban and country zones is presented below (table 7.1).

Discussion on the 'extra' taxi fees presented in table 7.1 is in chapter 5, except the late night fee.

For urban and country zones, a late night fee of $3 is applied between midnight and 6am (although not on public holidays) as an 'extra' charge (a flat fee). We have been unable to conduct a full and proper assessment of the application of these late night fees in the urban and country zones in the time available for this review. On this basis, existing timings for the late night fees should be maintained and we have determined to uplift the fees by 12.5 per cent (rounded to the nearest 10 cents).

The new late night fee for the urban and country zones is $3.40.

[157] At the time our review commenced, we were not expecting that it would cover country fares. This was altered in the terms of reference issued to us in February 2014 by the Minister for Public Transport.

TABLE 7.1 URBAN AND COUNTRY FARES

	Urban	Country
Standard taxi		
Flagfall ($)	3.60	3.70
Distance rate ($/km)	1.838	1.879
Waiting time ($/min if speed < 21 km/hr)	0.643	0.658
HOV[a]		
Flagfall ($)	3.60	3.70
Distance rate ($/km)	2.757	2.818
Waiting time ($/min if speed < 21 km/hr)	0.965	0.987
Other fare components		
Booking fee	$2.10	$2.10
Airport booking fee	$3.00	$3.00
Airport rank fee	$2.70	$2.70
Late night fee (midnight to 6am)	$3.40	$3.40
Holiday rate[b]	$4.20	$4.20

[a] For taxis carrying 5-11 passengers, or non-wheelchair hiring passengers where the hirer specifically requests a larger than standard taxi regardless of the number of passengers carried. [b] Holiday rates apply all day Christmas Day, Boxing Day, from 6pm on New Year's Eve and all day New Year's Day.

7.3 IMPACT ANALYSIS

The impact of these changes to urban and country fares (standard and HOV) is presented in tables 7.2 and 7.3.

TABLE 7.2 IMPACT ANALYSIS – URBAN AND COUNTRY ZONES
Standard taxi rates

Trip distance		Urban		Country	
		12am–6am	6am–12am	12am–6am	6am–12am
5 km	Current	$16.66	$13.66	$16.99	$13.99
	New	$18.76	$15.36	$19.14	$15.74
10 km	Current	$25.97	$22.97	$26.51	$23.51
	New	$29.24	$25.84	$29.85	$26.45
20 km	Current	$44.60	$41.60	$45.55	$42.55
	New	$50.19	$46.79	$51.27	$47.87
40 km	Current	$81.86	$78.86	$83.63	$80.63
	New	$92.09	$88.69	$94.11	$90.71

TABLE 7.3 IMPACT ANALYSIS – URBAN AND COUNTRY ZONES
HOV taxi rates

Trip distance		Urban		Country	
		12am–6am	6am–12am	12am–6am	6am–12am
5 km	Current	$21.89	$18.89	$22.34	$19.34
	New	$24.65	$21.25	$25.14	$21.74
10 km	Current	$35.86	$32.86	$36.62	$33.62
	New	$40.36	$36.96	$41.21	$37.81
20 km	Current	$63.80	$60.80	$65.18	$62.18
	New	$71.79	$68.39	$73.33	$69.93
40 km	Current	$119.68	$116.68	$122.30	$119.30
	New	$134.65	$131.25	$137.58	$134.18

8 FUTURE DIRECTIONS FOR TAXI FARES

KEY POINTS

We will be monitoring developments in the taxi market to assess how the industry and customers have responded to the fare changes arising from this review (including whether any discounts are being offered off the new maximum fares).

We will be investing in developing a better understanding of how customers assess value for money when deciding whether to use a taxi.

Steps should be taken as soon as possible to ensure customers are properly informed about fares so that, in turn, they will become increasingly discerning about the fares which they are prepared to pay.

We offer a list of some preliminary options for new fare structures that we would like to examine ahead of our next fare review.

8.1 INTRODUCTION

This review is the first fare review since 2008 and since the Taxi Industry Inquiry (TII) handed its report to the Victorian Government in 2012. Under the amended Transport Act, we will have an on-going role to review and determine taxis fares at least every two years from the date of the previous review. We expect to complete our next review of taxi fares in the second half of 2015.

Since it has been nearly six years since we last undertook a review of taxi fares in Victoria, and given the short time available to undertake this review, our efforts have

been primarily focused on resetting fares to reflect the various changes that have occurred since 2008 (as detailed in earlier chapters of this report).

With fare reviews now guaranteed by legislation to be no more than two years apart, the industry, customers and the regulatory community have an opportunity to cast an eye to the future of taxi fares. In light of the approach taken in this report to resetting and restructuring fares and, indeed, taking into account the broader reform agenda, there is no reason to expect that the structure of tariffs will not continue to evolve in the future.

Of course, it remains an open question as to how fares might adapt and evolve to emerging market conditions.

8.2 AN INCREASINGLY MARKET-ORIENTED APPROACH TO FARE SETTING

This report has outlines in detail our new approach to setting the overall level of fares based on a more market-focused assessment of the relevant factors, namely: operational costs, driver share of revenue and industry returns. In the times ahead, we will be monitoring developments in the market-place in order to assess whether we need to refine the assumptions we have made regarding these relevant factors.

We will also be monitoring closely the trip data (and other sources of information) to assess how the industry and customers have responded to the fare changes resulting from this review and whether operators have applied any discounts to the maximum fares we have set. And, we will be seeking new sources of information and insight that will help us better understand how customers (and potential customers) assess 'value-for-money' when considering whether to use a taxi.

These new observations and insights will be used to enhance the integrated model we have built that seeks to capture the dynamic interaction between the supply and demand sides of the taxi market. While it is too early to rely on this model in this review, we expect that we will be placing greater reliance on the integrated model in our future fare determinations.

We acknowledge that this fare review has been heavily focused on the industry side of the taxi market. To some extent this was inevitable given our time constraints and the time that has elapsed since our last review. In future, however, the tendency to focus on the industry will need to be balanced with a better understanding of the choices customers make — including how these decisions are influenced by the structure of taxi fares.

8.3 INFORMED AND DISCERNING CUSTOMERS

During the transition to a more competitive environment, our expectation is that the industry will become more active in pursuing new service offerings and pursuing any necessary changes to fare structures. As the fare regulator, we want to encourage these developments provided they are in customers interests. But these new services and pricing arrangements may also give rise to questions about new customer protections. These questions will need to be considered by the relevant authorities.

While a more competitive environment will allow the taxi industry to respond directly to customer demand, this necessarily requires informed and discerning customers. Steps should be taken as soon as possible to ensure customers are properly informed about fares so that, in turn, they will become increasingly discerning about the fares which they are prepared to pay. Without informed and discerning customers, the full benefits of competition may not be realised.

Even now, we believe there is a strong case for requiring the driver to advise the passenger at the start of the trip which tariff is being applied. Stickers on the dashboard should explain the fare structure (and any discount offered off the maximum fare). We would like to see the sticker also state that: "*Your driver must tell you which tariff you are paying*".

So as to ensure maximum transparency, steps should also be taken as soon as possible to ensure that:

- meters are designed so that it is very clear to the passenger which tariff is being applied and

- receipts are provided to customers showing:
  - the time at which the trip was taken
  - the applied tariff and
  - all extras including tolls and fees paid by the customer.

8.4 SOME OPTIONS FOR FUTURE FARE STRUCTURES

The emergence of greater competition in the taxi services market means it is the taxi industry, not the regulator, which must take increasing responsibility for determining the types and standard of services that best meet customers' preferences. At the same time, metering and other technological advances will create opportunities that are not currently available.

For now, it is not clear how these changes will affect the setting of taxi fares in the future. Nevertheless, we see our role as becoming increasingly one of facilitation rather than strict price regulation.

Going forward, we will be focusing on market outcomes that better balance supply and demand for customer responsive taxi services through fare arrangements. We will be engaging with the industry, passenger representatives and the Taxi Services Commission on innovative fare options.

Some of the preliminary options that we would like to examine in the times ahead are listed below. The list is not intended to be exhaustive and some of the options are incompatible with each other. In this sense, the list is intended as a 'conversation starter' ahead of our next review.

- **Origin-Destination fares:** Taxi trips differ from one another in terms of origin, destination, and time of day. The current fare structure only addresses the last of these characteristics. As metering and other technologies become available, we believe it will become possible to look at fares based on their origin, destination or both. Most notably, we want to explore origin-destination fare options for high demand trips such as from the airport to CBD and vice versa, as well as for trips exclusively within the city (and possibly, immediate surrounds).

- **Minimum fares:** There was quite a lot of interest in minimum fares shown during our consultations, that is, fares where a customer pays a minimum amount irrespective of the distance travelled. Beyond some distance, a distance charge would apply. There was no consensus about the level of the minimum charge or the distance threshold over which it would apply and it was not possible to take these ideas forward in this review. We believe there could be a strong role for minimum fares particularly if combined with origin-destination fare arrangements.

- **Declining marginal tariffs:** These are tariffs in which the distance rate decreases with the distance travelled. Declining tariffs can be implemented in innumerable ways. The distance at which the distance tariff steps down and the extent to which it steps, and whether one or more steps are worth pursuing, would need to be subjected to detailed modelling and widespread consultation.

- **Seasonal tariffs:** The trip data suggests there is a reasonably distinct difference in the pattern of trips depending on the time of year. While the months February to November are quite consistent in their pattern of taxi use, December and January are quite distinct. It is worth considering whether tariffs should reflect these three 'seasons'.

- **New time charge:** Under current arrangements, a distance charge applies when the taxi is travelling at speeds above 21 kilometres per hour. Below this speed a time charge applies rather than the distance charge. We have not had the opportunity to assess whether the 21 kilometre per hour threshold for the time charge is the most appropriate (for example in Sydney it is 26 kilometres per hour).

- **Hybrid distance-time tariffs:** As just noted, under current arrangements either a distance charge applies or the time charge applies. We are interested in exploring whether options might exist in which both distance and time charges apply simultaneously in some combination. Such arrangements might allow fares to better reflect industry cost drivers.

- **A zero tariff for pre-booked services:** Currently, taxis would find it difficult to offer a fixed price service to passengers. We are mindful that the reforms implemented by the Government are intended to promote competition. The limited ability for taxis to offer fixed price fares, makes it difficult for taxis to compete with pre-booked only (PBO) services providers (that is, hire cars). We are interested in exploring the

option of setting both a minimum booking fee and a very high *maximum* booking fee (say, $2 and $1000, respectively). In the event that an operator or driver offered to charge a booking fee between the minimum and the maximum, then a zero distance and waiting tariff would apply. This would have the same effect as charging the customer a fixed price for the journey. Of course, customers would always retain the option of asking for a metered fare.

- **Multiple hire and share-ride arrangements:** As already noted, we are looking for industry leadership on how multiple hire arrangements might be made to work more effectively. Likewise, we are keen on exploring how fare arrangements could be used to facilitate share-ride arrangements (the two differ insofar as share-rides will typically involve a fixed fare rather than a metered fare).

- **Deregulating fares in periods of low demand:** Price regulation is based on the proposition that customers are not in a position of strength when making a purchase (often due to a lack of options due to the absence of competition). As the reforms take hold, it will be worth considering whether fares (particularly pre-booked fares) need to be regulated at times of low demand.

- **Tariff choice:** As operators, drivers and networks seek to innovate, it will be worth considering whether they be allowed to submit their own tariff structures to the fare regulator for approval. While fares continue to be regulated, we would need to develop a set of assessment criteria which applicants would need to satisfy. Similarly, satisfactory customer protections would need to be put in place to ensure customers were not materially disadvantaged.[159] If all conditions were satisfied, the applicant would be free to offer its new tariffs in place of (or possibly alongside) the regulated tariffs.

In due course we will be discussing the shape of the next taxi fare review, including tariff innovation, with the industry and the TSC. In the meantime our door is open to any stakeholders who would like to discuss these matters with us.

[159] Particularly with regard to traditional rank and hail services.

APPENDIX A — TERMS OF REFERENCE AND LEGISLATIVE FRAMEWORK

This appendix presents the terms of reference and details the legislative framework relevant to the Commission's fare review.

A.1 TERMS OF REFERENCE

A.2 THE ESSENTIAL SERVICES COMMISSION ACT 2001

The ESC Act objective is to '*promote the long term interests of Victorian consumers*'. This objective highlights the importance of the consumer, that is, the customer or passenger using the taxi service. The 'interest of consumers' are served by the lowest possible fares as well as increased service quality and increased diversity and scope in taxi service offerings. This objective is conditioned by the 'long term' perspective, however, which highlights the potential conflict between the objectives of lower prices and service quality. Fares must be set at a level that ensures quality and reliable service provision now and in the future.

TABLE A1 RELEVANT SECTIONS OF THE ESC ACT

	Section detail
s. 8 (1)	**Objective of the Commission** In performing its functions and exercising its powers, the objective of the Commission is to promote the long term interests of Victorian consumers.
s. 8A (1)	**Matters the Commission must have regard to** In seeking to achieve the objective specified in section 8, the Commission must have regard to the following matters to the extent that they are relevant in any particular case— (a) efficiency in the industry and incentives for long term investment; (b) the financial viability of the industry; (c) the degree of, and scope for, competition within the industry, including countervailing market power and information asymmetries; (d) the relevant health, safety, environmental and social legislation applying to the industry; (e) the benefits and costs of regulation (including externalities and the gains from competition and efficiency) for— (i) consumers and users of products or services (including low income and vulnerable consumers); (ii) regulated entities; (f) consistency in regulation between States and on a national basis; (g) any matters specified in the empowering instrument.

Continued next page

TABLE A1 (CONTINUED)

	Section detail
s. 33(3)	**Price determinations** In making a determination under this section, the Commission must have regard to— (a) the particular circumstances of the regulated industry and the prescribed goods and services for which the determination is being made; (b) the efficient costs of producing or supplying regulated goods or services and of complying with relevant legislation and relevant health, safety, environmental and social legislation applying to the regulated industry; (c) the return on assets in the regulated industry; (d) any relevant interstate and international benchmarks for prices, costs and return on assets in comparable industries; (e) any other factors that the Commission considers relevant.

A.3 THE AMENDED TRANSPORT ACT

Under the amended Transport Act our specific industry objective is to '*promote the efficient provision and use of commercial passenger vehicle services*'. This objective emphasises the efficient provision and use of *commercial passenger vehicle services*. The objective goes beyond taxi services, and most relevantly captures hire cars. Reference to 'efficient provision' means that at the desired level of quality, services are provided at least cost, and 'efficient use' requires that demand for taxi services reflects the efficient cost of providing those services. For example, if costs of service provision are higher during certain periods, then fares should reflect these higher costs (and demand in turn will respond to these higher fares).

TABLE A2 RELEVANT SECTIONS OF THE AMENDED TRANSPORT ACT

	Section detail
s. 162B	**Objective of the ESC** The objective of the ESC in relation to the taxi industry is to promote the efficient provision and use of commercial passenger vehicle services.
s. 162D	**Price determinations** Without limiting s. 33(5) of the Essential Services Commission Act 2001, the manner in which the ESC may regulate prescribed prices includes determining different prices according to— (a) the time of day at which, or day of the week or kind of day on which, the service is provided; or (b) the taxi-cab zone referred to in s. 143B(1) that is specified in the vehicle's licence; or (c) the speed at which the vehicle is travelling; or (d) the distance travelled by the vehicle; or (e) the type of vehicle; or (f) the occupancy of the vehicle, including where there is more than one hirer; or (g) where the journey begins or ends.
s. 162E(1)	**Exercise of regulatory functions** In making a determination in relation to the taxi industry, the ESC must have regard to recommendations 12.1 to 12.9 and 13.1 to 13.5 in the final report of the Taxi Industry Inquiry tabled in both Houses of the Parliament on 12 December 2012.

A.4 TAXI INDUSTRY INQUIRY RECOMMENDATIONS

TABLE A3 TII RECOMMENDATIONS
Recommendations 12.1 – 12.9 and 13.1 – 13.5

	Recommendation
12.1	Taxi fares in Metropolitan and Urban zones should continue to be regulated in the short to medium term, and should change from being prescribed fares (fixed amounts) to maximum fares, giving permit holders and Authorised Taxi Organisations the ability to offer discounted rates below the maximum level to consumers.
12.2	Maximum fares should be determined by the Essential Services Commission (ESC). Fare reviews should be undertaken every two years, with the capacity to undertake interim reviews should certain cost thresholds (for example, LPG cost movements) be reached.
12.3	A Commissioner of the Taxi Services Commission should be appointed a member of the ESC for the purpose of assisting with taxi fare reviews and determinations for the first five years of taxi reform implementation. In addition, the ESC should be required to ensure its deliberations on fare setting have regard to the Government's broader taxi reform package and its progress in implementing these reforms.
12.4	A review of the taxi fare setting methodology should be commenced as soon as possible. The terms of reference should have regard to the views expressed by the Taxi Industry Inquiry on fare setting methodology, should take into account the differences in industry structure between the taxi industry and other utility industries regulated by the ESC, and should consider fare setting models that account for demand factors in a dynamic way.
12.5	Maximum fares should be recorded on the taximeter. Authorised Taxi Organisations (ATOs) and independent permit holders should be permitted to determine and advertise lower fares than the maximum (and these discounted fares will also be shown on the taximeter), and all taxis affiliated with an ATO should be required to adhere to that organisation's published rates.
12.6	In Regional and Country zones, where pre-booked services predominate, the Taxi Services Commission should be empowered to replace formal maximum fare regulation with a price notification and publication system, following the adoption of the licensing reforms proposed by the Taxi Industry Inquiry.
12.7	In areas where price notification applies, Multi Purpose Taxi Program (MPTP) passengers should have their subsidy component calculated on the Metropolitan zone regulated maximum fares rate.

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TABLE A3 (CONTINUED)

Recommendation
12.8 Following the first three years of the reform program, the Taxi Services Commission should assess the extent and effectiveness of fare competition to determine if it is suitable to also move from maximum to notified and monitored fares in the Metropolitan and Urban zones. In making this assessment, the Commission should consider if all or part of these services are sufficiently competitive, particularly the pre-booked segment of the market.
12.9 Fares should be restructured to: • Ensure changes in operators' returns due to the new Driver Agreement do not adversely affect services, which require an increase in taxi fares late on Friday and Saturday nights (peak times), offset against a reduction in fares at all other times (off peak) • Increase the flagfall and reduce the price per kilometre for the Metropolitan zone to address the undesirable practices of short fare refusal and inefficient behaviour such as airport overcrowding • Replace the 'Tariff 3' 50 per cent surcharge on the distance and time rate with a flat fee of between $10 and $15, which customers should be advised of when they book a higher occupancy vehicle or when they select one from a rank, such as at the airport • Simplify 'multiple hire' fare charging to support the industry to offer more flexible, innovative shared ride type services (for example, by allowing flat fee amounts for passengers in a shared ride trip that total more than the meter) and include provisions for MPTP members to use their subsidy for shared rides.
13.1 Barriers to entry into payments processing should be reduced by changing arrangements for the Multi Purpose Taxi Program (MPTP) scheme and changing the approvals process for EFTPOS devices in Victorian taxis. Regulations and the unique requirements mandated by the regulator for EFTPOS terminals should be rationalised and all taxi-specific requirements for mobile EFTPOS terminals removed as part of a transition to an industry certification framework. This should commence immediately and replace the current approval of this equipment by the State. During the transition to the new certification framework, minimal taxi-specific requirements for those EFTPOS terminals that are hard-wired (fixed) to other in-cab equipment should be retained.

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TABLE A3 (CONTINUED)

	Recommendation
13.2	A new standard should be established for the processing of MPTP cards and this should be made available to future card payment providers. This would involve allowing any EFTPOS terminal to process MPTP cards by permitting taxi fare data to be acquired by EFTPOS terminals via newer 'cloud' technologies, rather than only via the current requirement of a hard-wired link with the taximeter. The new standard should be sufficiently technically robust to control fraud under all operating conditions. Adoption of this recommendation will require a formal design evaluation and commercial procurement diligence, prior to implementation.
13.3	The 10 per cent service fee levied on the processing of electronic payments should be brought under regulation and set at a level that better reflects the resource costs of providing the service. The inquiry recommends this fee be set at five per cent of transaction value as a maximum amount that can be charged, until subject to a further evaluation by the Essential Services Commission.
13.4	More broadly, if payments processors continue to have difficulty in obtaining access to Cabcharge payment instruments, the Victorian Government should ask the Reserve Bank of Australia to consider designating Cabcharge as a payment system and impose an access regime requiring it to give access to payments processors on reasonable terms.
13.5	Removal of the service fee regulation applying to the processing of electronic payments for taxi fares should occur when competition is more effective in this area.

APPENDIX B — OPERATOR AND DRIVER SURVEYS

This appendix provides copies of the operator and driver surveys distributed by us.

APPENDIX C — FARE LEVELS IF THE 2008 RECOMMENDATIONS WERE APPLIED

In the last review of taxi fares we recommended an annual adjustment of taxi fares according to a 'composite input price index less a productivity factor', CIPI-X formula and this is applied to all elements of the fare schedule. Annual adjustments have not been applied, with taxi fares last increased in December 2008.

The CIPI-X fare adjustments were to be based on 5 weighted cost groups, each represented by a particular escalator. Those cost groups were identified, and weighted, according to results from our 2007 survey of drivers and operators. These cost group parameters, along with their individual weightings, are presented below (table C1).

TABLE C1 PARAMETERS FOR COMPOSITE INPUT PRICE INDEX

Parameter	Weight (%)	Escalator
Driver payments & operator income	52.3	WPI (Transport)
Vehicle costs, maintenance & tyres, some fuel	13.4	PMI (Melbourne)
Registration & Insurance	3.9	Insurance component of CPI (Melbourne)
LPG	8.8	FUELTrac
Network fees, office & misc & base licence fee	21.7	CPI (Melbourne)

Source: *Essential Services Commission 2008, Taxi Fare Review 2007 08: Final Report, Augus*t, p 83.

The recommended formula for annual fare adjustments was:

$$\Delta W = \sum_{k} s_k \ln\left(\frac{w_{kt}}{w_{kt-1}}\right)$$

Where W is the index of input prices, and s_k is the share of input *k* in taxi operator costs and w_k is the price of input *k*.

Implementation of the annual fare adjustments was recommended for September of each year, based on the June quarter of the three Australian Bureau of Statistics indices (Wage Price Index, Private Motoring Index and Consumer Price Index).

In recognition of the costs involved in changing taxi fare meter settings, it was also recommended that a materiality threshold of 3 per cent be applied. Annual changes to the index below this were to result in the retention of current fares and the change carried over into the following year's calculation.

The results of applying the CIPI – X adjustment process are presented in table C2. We have applied the calculation to both the metropolitan zone and urban zone based on FUELTrac LPG price data for Melbourne and Geelong, Ballarat and Bendigo (representing the urban zone).

TABLE C2 CIPI-X FARE ADJUSTMENTS
Annual changes to fare levels recommended in 2008 review

Year	Metropolitan	Urban
2009	No change	No change
2010	3.1% rise	3.4% rise
2011	3.8% rise	4.1% rise
2012	3.3% rise	3.4% rise
2013	No change	No change
Cumulative change to 2013	10.6% rise	11.3% rise

For the metropolitan zone, application of the CIPI – X adjustment formula would have resulted in a cumulative 10.6 per cent increase in fares between 2008 and 2013. The increase would have been slightly higher in the urban zone.

For the sake of comparison, the cumulative change over the same five year period (June 2008 to June 2013) in the Consumer Price Index, All Groups was 11.8 per cent for Melbourne and 12.2 per cent for Australia.

APPENDIX D — NATIONAL FARE STRUCTURES

Taxi fare structures among Australian capital cities are generally similar (table D1). Different tariffs apply during the day and late at night, and tariffs are higher for High Occupancy Vehicles (HOV). For all capital cities, the key components of the tariff structure are the flagfall, distance and waiting time rates. Most capital cities also allow for a booking fee for pre-booked taxis.

There are however some differences in the tariff structures:

- The timing when each tariff applies differs widely. For example, the range of start times for 'day time' tariffs ranges from 5am to 7am and the end time from 6pm to midnight.
- In addition to a higher night time tariff, Sydney, Brisbane and Perth apply an additional late night surcharge. A further $2.50 surcharge applies in Sydney, $2.00 in Brisbane and $3.50 in Perth.
  - While not captured in the table, some jurisdictions also apply holiday surcharges.
- All capital cities apply higher tariffs for HOVs, but the level of surcharge and how it is applied differs. For example:
  - most of the capital cities apply the surcharge on flagfall, distance and wait times but Melbourne and Perth apply the surcharge to distance and waiting times only
  - the level of surcharge varies from 30 per cent to 50 per cent
  - Brisbane's surcharge is deregulated and applies to pre-booked jobs only.

TABLE D1 TAXI FARE STRUCTURES — AUSTRALIAN CAPITAL CITIES

	Melbourne		Sydney		Brisbane			Adelaide		Canberra		Perth		Hobart	
Fare Component	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 3	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 1	Tariff 2
	5am - 12am	12am - 5am	6am - 10pm	10pm - 6am	7am-7pm weekdays	All other times inc. pub. hols	12am - 5am exc. Anzac Day	6am-7pm weekdays	All other times inc. pub. hols	6am-9pm weekdays	All other times inc. pub. hols	6am-6pm weekdays	All other times inc. pub. hols	6am-8pm weekdays	All other times inc. pub. hols
Booking Fee ($)	2.00	2.00	2.40	2.40	1.50	1.50	1.50	na	na	na	na	1.50	1.50	na	na
Extra night surcharge ($)				2.50[a]		2.00[b]							3.50[c]		
Standard Taxi															
Flagfall ($)	3.20	3.20	3.50	3.50	2.90	4.30	6.30	3.70	4.90	4.85	4.85	4.10	6.00	3.60	3.60
Distance rate ($/km)	1.617	1.94	2.14	2.57	2.14	2.14	2.14	1.84	2.03	1.99	2.29	1.69	1.69	1.94	2.32
Waiting rate (c/min)	56.6	67.9	92.1	92.1	79	79	79	65.5	65.5	86.7	86.7	80.2	80.2	64	64

Continued next page

TABLE D1 (CONTINUED)

	Melbourne		Sydney		Brisbane			Adelaide		Canberra		Perth		Hobart	
Fare Component	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 3	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 1	Tariff 2	Tariff 1	Tariff 2
	5am – 12am	12am - 5am	6am - 10pm	10pm - 6am	7am-7pm weekdays	All other times inc. pub. hols	12am - 5am exc. Anzac Day	6am-7pm weekdays	All other times inc. pub. hols	6am-9pm weekdays	All other times inc. pub. hols	6am-6pm weekdays	All other times inc. pub. hols	6am-8pm weekdays	All other times inc. pub. hols
HOV (5 or more pax.)[d]								**Tariff 3**	**Tariff 4**			**Tariff 3**		**Tariff 3**	**Tariff 4**
Flagfall ($)	50% of distance and waiting time rates		150% of std fare (exc. tolls)		HOV surcharge deregulated; applied to pre-booked jobs only; ongoing rate is $11 to $12			4.70	6.40	7.28	7.28	6.00		5.20	5.20
Distance rate ($/km)								2.40	2.63	2.99	3.44	2.51		2.16	2.59
Waiting rate (c/min)								85.2	85.2	86.7	86.7	124.3		73.0	73.0

a Additional to hiring charge for journey commencing between 10pm on a Friday, Saturday or the day before a public holiday and 6am on the next day. **b** Between midnight and 5am on all days except Anzac Day. **c** Between midnight and 5am on Friday or Saturday nights **d** For Canberra, the rates are for 5, 6, or 7 passengers. Higher rates apply for 8 or more passengers. For Hobart, tariff is charged when there is a least one wheelchair passenger. When 5 or more passengers are carried then tariff 2 is charged at all times.

Data source: various state government and taxi council websites — Taxi Services Commission (Vic), Taxi Council of South Australian (SA), Department of Transport and Main Roads (Qld), ACT Road Transport Authority, Department of Infrastructure, Energy and Resources (Tas) 2014, Understanding Taxis and Luxury Hire Cars, accessed at http://www.dier.tas.gov.au/passenger/taxi/understanding_taxis_and_luxury_hire_cars#Taxi Fares on 25 February 2014. Western Australia Department of Transport 2014, Taxi fares, accessed at http://www.transport.wa.gov.au/taxis/15154.asp on 25 February 2014. Transport for NSW 2014, Maximum taxi fares and charges, accessed at http://www.transport.nsw.gov.au/content/maximum taxi fares and charges on 25 February 2014.

APPENDIX E — OPTIMAL TARIFF SETTING

E.1 VICTORIAN TAXI FARES

The fare structure for taxis refers to the various components that make up the fare charged to passengers. In Victoria, taxi fares are made up of a combination of a fixed flagfall, a distance based component and a time based component (which applies when a vehicle is stationary or travelling below a particular speed), as well as other charges such as booking fees, airport charges, holiday surcharges and late night fees. Some of the components can vary depending on the area, time of day and the type of taxi. Pricing decisions made by regulators could potentially involve changes to the structure of taxi fares as well as to its level.

Taxi fares in Victoria currently include:

- a flagfall — this is the fixed component of the fare
- a kilometre rate — this is a charge based on the distance travelled. This can vary depending on the time of day (in metropolitan and outer suburban areas), the type of taxi and the number of passengers
- a waiting time rate — this charge is charged on a per minute basis when the taxi is stationary or travelling at less than 21 kilometres per hour
- other charges could include:
  - a booking fee — this is a fixed charge that applies only to booked taxis
  - airport fees — this is a fixed charge applied at airports
  - late night fees — a fixed late night fee applies between midnight and 6am in the urban (Ballarat, Bendigo and Geelong) and country zones, but not in the metropolitan and outer suburban zones
  - a holiday surcharge — this applies all day Christmas Day, Boxing Day, from 6pm on New Year's Eve and all day New Year's Day. It is applied as a fixed

charge in the urban and country zones, but as a percentage of the total fare in the metropolitan and outer suburban zones.

The fare structure that currently applies in Victoria is summarised in table E1.

TABLE E1 TAXI FARES IN VICTORIA

	Metropolitan and outer suburban zones ($)	Urban zones[a] ($)	Country zones ($)
Flagfall	3.20	3.20	3.30
Distance rate ($ per km)			
Tariff 1	1.617[b]	1.634[c]	1.670[c]
Tariff 2	1.940[d]	2.451[e]	2.505[e]
Tariff 3	2.42[e]	-	
Tariff 4	2.90[e]	-	
Waiting time ($ per minute)			
Tariff 1	0.566[b]	0.572	0.585
Tariff 2	0.679[c]	0.858[e]	0.8775[e]
Tariff 3	0.850[e]	-	-
Tariff 4	1.020[de]	--	-
Other fare components			
Booking fee	2.00	2.10	2.10
Late night fee[f]	-	3.00	3.00
Airport rank fee	2.00	2.00	2.00
Airport pre booking fee	3.00	3.00	3.00
Holiday surcharge[g]	20%	3.70	3.70

[a] Applies in Ballarat, Bendigo and Geelong. [b] Applies from 5am to midnight. [c] Applies for taxis carrying up to 4 passengers (standard taxi) or any multiple hirings. [d] Applies from midnight to 5am. [e] Applies for high occupancy taxis (wheelchair accessible taxis, taxis carrying 5 11 passengers, or non-wheelchair hiring where the hirer specifically requests a larger than standard taxi regardless of the number of passengers carried. [f] Applies from midnight to 6am. [g] Applies all day Christmas Day, Boxing Day, from 6pm on New Year's Eve and all day New Year's Day. Late night fees do not apply.

Data source: Taxi Services Commission website, http://www.taxi.vic.gov.au/passengers/taxi-passengers/taxi-fares#urban, accessed 30 January 2014.

E.2 THE IMPACTS OF ALTERNATIVE FARE STRUCTURES

Changing the structure of fares has impacts on the demand side and the supply side.

- On the demand side, fare rebalancing leads to higher fares for some trips and lower fares for others. Passengers will change their demand for taxi services to reflect the changes in fares.
- On the supply side, higher fares lead to more taxis willing to make themselves available for particular trips. For example, taxis may be more willing to provide shorter trips if the flagfall is higher than it is now. There may be limited scope for supply to respond in high demand periods when most of the taxi fleet is already on the road, such as Friday and Saturday nights.

A supply based approach to fare setting would seek to match fares to the marginal costs and fixed costs of providing services. A demand-based approach may instead seek to allocate fixed costs to time or types of journeys for which demand is inelastic or where there is excess demand.

Evidence-based changes to an existing fare structure can require substantial amounts of information that may not be available from the taxi industry.

The Victorian Taxi Industry Inquiry has noted that the optimal fare structure would be one where the fare reflects the cost of providing the service. If the fare structure reflects the cost of providing the service, drivers should be indifferent between long and short fares and the fares do not distort passengers' transport decisions.

Key issues to consider include:

- the shares of fixed and variable costs
- marginal cost pricing
- the ability to use two-part tariffs
- how fixed costs can be recovered in a way that minimises inefficiency
- whether the 'other' fare components are cost reflective, and
- whether peak period pricing should apply and when.

E.3 THE SHARE OF FIXED AND VARIABLE COSTS

Approaches to price regulation that are optimal for other industries are based on the allocation of the fixed and variable costs associated with providing the service to specific price components (see box E1 for a discussion of the costs involved in providing taxi services).

BOX E1 CLASSIFYING THE COSTS OF PROVIDING TAXI SERVICE

There are fixed, and variable costs associated with providing taxi services.

Fixed costs

Fixed costs are incurred by providers of taxi services, regardless of the quantity supplied. The fixed costs associated with providing taxi services include:

- the cost of the vehicle and fit-out
- licence related costs
- (part of)insurance costs and
- network fees.

While some of these costs are optional (such as some insurance costs and network fees), they are considered fixed because they do not vary based on the operator's decision on the number of hours the vehicle is available for hire, the number of kilometres driven or the number of passenger trips.

These costs are only fixed in the short run. In the long run, an operator can provide additional services by operating more vehicles, although there is an overall restriction on the number of taxis that may operate in a particular taxi area.

Continued next page

BOX E1 (CONTINUED)

Variable costs

Variable costs vary with the quantity of services provided. Variable costs associated with operating a taxi include:

- fuel — the more passenger trips provided, the more fuel will be consumed and
- vehicle maintenance — in general, maintenance costs will be related to the distance the vehicle travels.

E.4 MARGINAL COST PRICING

According to standard economic theory, in a competitive market the price will reflect the marginal cost of producing the last unit of output. Since a price based on marginal cost (where feasible) maximises the welfare of the community, regulators often attempt to set such a price in regulated markets, particularly where there is the option to charge a two part tariff.

In the taxi industry, the marginal cost is the additional costs incurred in providing each additional passenger trip. Since most costs in the taxi industry are fixed, the marginal cost of providing each additional passenger trip would include the additional fuel used in providing the passenger trip, and the additional costs for maintenance and insurance (i.e. maintenance and insurance costs are likely to be related to the number of kilometres driven meaning that some of these costs could be directly allocated to a passenger).

A fare structure based on the marginal cost would therefore not cover the fixed cost of putting the taxi on the road or the variable costs incurred while the taxi is searching for the next fare. In the taxi industry, variable costs are related to the distance driven and the time the taxi is 'on the road', rather than the quantity of the service provided. Drivers spend a significant proportion of their shift without a passenger and also incur significant fuel costs that cannot be directly attributed to a particular passenger. These

costs need to be covered by fare revenue. Marginal cost pricing alone is therefore not feasible for the taxi industry to recover sufficient revenue.

E.5 TWO PART TARIFFS FOR THE TAXI INDUSTRY

In some regulated industries with relatively high fixed costs — such as electricity and water — multi-part prices allow the operator to charge a price equal to marginal cost. In these industries, fixed costs relating to the network infrastructure are recovered through a fixed access charge, which provides the customer with access to the network for a specified period. The usage charge reflects the marginal cost of supply. Each user then makes their usage decisions based on the usage charge, which reflects the marginal cost of supply.

If such a system were applied to the taxi industry, this would be equivalent to charging an annual fee to be able to access taxis.

An analogy is often made to the flagfall/distance rate as a two part tariff similar to the two part tariffs in other regulated sectors. This is not correct. The flagfall/distance rate arrangement is very different to the two part tariffs in other regulated industries, because both charges are only incurred if the taxi is used. In this case, both the flagfall and the distance rate influence usage of taxi services. Even if fixed costs are notionally allocated to the flagfall, the prices paid by customers will then not reflect marginal costs.

The most that could be said from assessing the marginal costs of passenger kilometres is that the distance rate should be at least as high as marginal costs. But fixed and variable cost calculations give no guidance as to how fixed costs should be allocated over short and longer trips.

In considering the access charges used in other sectors, one question is whether such an arrangement could work for taxis. That is, a customer could pay an annual fee and then access cheaper taxi services. An arrangement of this sort might occur in some segments of the market — such as corporate arrangements for provision of taxi or hire car services. We consider that this is likely outside the scope of consideration for this review.

E.6 RAMSEY PRICING

In markets where marginal cost pricing is not possible due to high fixed costs or other reasons, fixed costs must be recovered through a pricing structure that involves a mark-up over marginal cost on at least some regulated products or price components. Under Ramsey pricing, the mark-up above marginal cost on each product is inversely related to the product's elasticity of demand. This pricing structure is efficient because it minimises the deviation in the quantity demanded, compared with marginal cost pricing.

As discussed above, changing the relativity between the flagfall and variable fare components affects different length trips differently. Recovering the fixed costs through a mark-up on the flagfall would increase the price of a short trip by more, relative to a long trip. Conversely, recovering the fixed costs through a mark-up on the kilometre rate would increase the price of a short trip by more, relative to a long trip.

In the context of taxi fares, a Ramsey pricing structure would depend on what segment of the market is more sensitive to price.

- If demand for longer trips is more sensitive to price, a greater proportion of the fixed costs should be recovered through a mark-up on the flagfall. By contrast, if demand for shorter trips is more sensitive to price, a greater proportion of the fixed costs should be recovered through the kilometre (or waiting time) rate.
- If demand is less sensitive to price at particular time periods then this would also suggest increasing price at these time periods. This conclusion is discussed in greater detail below.

In practice, information on demand elasticities is imprecise. For example, a survey conducted for the Victorian Taxi Industry Inquiry noted that the "set of average elasticities within each trip purpose segment are not meaningful". Ramsey pricing is therefore often not practical, given information constraints.

The regulatory literature on Ramsey pricing has focused on the case of a natural monopoly. The taxi industry does not fit this model, which leads to complications in considering Ramsey pricing. For example, for a natural monopoly, Ramsey pricing does not lead to a supply-side response because there is only one business. In taxis this is not the case. If a mark-up is higher for a particular market segment, such as

airport trips, then this will lead to taxis seeking to target that market segment. In this case the mark-up over costs, once waiting costs are accounted for, is likely to decline and align to the opportunity costs of seeking to serve other market segments.

E.7 APPLICATION OF OPTIMAL FARE SETTING TO TAXI REGULATION

The theory of optimal fare setting provides some broad guidance as to how fares might be set. In particular:

- the distance rate should be higher than the marginal cost — the current distance rates are well in excess of marginal costs and
- fixed costs can best be recovered from market segments where demand is inelastic, if these markets can be identified. However, there may be unintended supply response from doing this.

APPENDIX F — TAXI AND ITS SUBSTITUTES

Taxi services compete with other transport options for patronage. For example, someone going to the airport could go by taxi, drive themselves and park at the airport, or take the Melbourne SkyBus service between the city and airport. Since taxis can be substituted by other transport options, the relative price between taxis and these alternatives may influence demand for each of the options.

We present information on public transport, SkyBus and private motoring costs (as measured by the Australian Bureau of Statistics' 'Private Motoring Index, Melbourne') (tables F1, F2, F3 and F4). They have been chosen as they represent alternatives to taxi travel in Melbourne.

Relative prices, and how these change, will influence demand for taxis and its substitutes. As taxi fares have remained fixed since the last increase in December 2008, changes in the prices of alternative services provide a simple way of observing changes in the relative affordability of taxi services. For example, an increase in the price of one service relative to another would decrease its attractiveness and may encourage some users to switch to the now cheaper alternative (in relative terms).

TABLE F1 MELBOURNE METRO PUBLIC TRANSPORT FARES

Metcard					Myki				
	2008	2009	2009	2010	2011	2012	2013	2014	change 2008–14
Full fare, zone 1, 2 hour	$3.50	$3.70	$2.94	$2.94	$3.02	$3.28	$3.50	$3.58	2.3%
Full fare, zones 1 & 2, 2 hour	$5.50	$5.80	$4.96	$4.96	$5.10	$5.54	$5.92	$6.06	10.2%
Full fare, zone 1, weekly	$28.00	$14.70	$29.40	$59.40	$30.20	$32.80	$35.00	$35.80	27.9%
Full fare, zones 1 & 2, weekly	$47.40	$24.80	$49.60	$49.60	$51.00	$55.40	$59.20	$60.60	27.8%

Source: Public Transport Victoria 2014, private email communication.

TABLE F2 SKYBUS SHUTTLE FARES

	2008	2009	2010	2011	2012	2013	2014	Change 2008–14
Adult, one way	$16	$16	$16	$16	$17	$17	$18	12.5%
Adult, return	$26	$26	$26	$26	$28	$28	$30	15.4%

Source: Skybus 2014, http://www.skybus.com.au/, accessed 6 March 2014.

TABLE F3 MELBOURNE AIRPORT PARKING FEES

	2008	2009	2010	2011	2012	2013	2014	Change 2008–14
1 hr	$12	$12	$12	$12	$12		$14	16.7%
8 hrs	$30	$35	$50	$52	$55		$56	86.7%
24 hrs	$45	$45	$50	$52	$55		$56	24.4%
1 day (long term)	$25	$25	$29	$29	$29		$39	56.0%
7 days	$69	$69	$77	$77	$77		$99	43.5%

Source: ACCC 2014, *Airport Monitoring Reports*, http://www.accc.gov.au/publications/airport-monitoring-reports, accessed 6 March 2014 and Melbourne Airport 2014, *Airport Parking*, http://melbourneairport.com.au/to-from-the-airport/airport-parking/car-parks/short-term-parking.html and http://melbourneairport.com.au/to-from-the-airport/airport-parking/car-parks/long-term-parking.html accessed 6 March 2014.

TABLE F4 MELBOURNE PRIVATE MOTORING INDEX[a]

2008	2009	2010	2011	2012	2013	Change 2008–13
98.1	93.6	95.6	98.9	101.3	102.9	4.9%

[a] Yearly PMI calculated as simple average across four calendar quarters. NB: 2014 figures yet to be released.

Data source: Australian Bureau of Statistics 2014, Series ID: A2326621J (Private Motoring, Melbourne).

All substitute prices have risen and there have been considerable rises in airport parking and certain public transport prices. The SkyBus fare has risen in line with broader inflation and the cost of driving a car has seen a more modest rise.

With these increases in the prices of substitutes, taxis have become relatively cheaper. Combined with population growth and minimal improvements in public transport service (table F5) quality, taxi services have had a considerable advantage in attracting greater levels of demand since the last taxi fare review.

We present service quality information (on public transport) because this is a consideration that will influence the travelling choices passengers make. Given, for example, constant prices and rising quality for any service, we should expect to see demand for that service rise.

The data shows that there have only been marginal changes in public transport quality in Melbourne over recent years.

TABLE F5 PUBLIC TRANSPORT PERFORMANCE

Performance measure		2008-09	2009-10	2010-11	2011-12	2012-13	Change 2008-09 to 2012-13
Train	Customer satisfaction		62.6	64.2	66.8	67.0	4.4%[a]
	Punctuality	87.9	85.4	85.8	89.9	92.1	4.2%
	Reliability	98.5	98.9	98.7	98.5	98.4	-0.1%
Bus	Customer satisfaction		74.3	74.2	75.3	75.5	1.2%[a]
	Punctuality	94.3	94.1	93.6	94.2	94.3	0.0%
	Reliability	>99.9	>99.9	>99.9	>99.9	>99.9	0.0%
Tram	Customer satisfaction		71.0	71.6	72.8	73.1	2.1%[a]
	Punctuality[b]	79.2	81.9	81.4	81.7	81.7	2.5%
	Reliability	99.1	99.3	99.2	99.1	99.0	-0.1%

[a] Measured from 2009-10. 2008-09 figures not available. [b] Measured as an average along the route.

Source: : Public Transport Victoria 2014, *Track Record*, accessed at http://ptv.vic.gov.au/about-ptv/ptv-data-and-reports/track-record-2/ on 6 March.