ESSENTIAL SERVICES COMMISSION

Unbooked Commercial Passenger Vehicle Fare Review 2018

Final Decision

13 September 2018

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1. Summary of our decision

As Victoria's economic regulator, one of our roles is to set maximum fares for unbooked commercial passenger vehicle (CPV) services that begin in the Melbourne Metropolitan and Urban and Large Regional zones. Unbooked services are trips hailed from the street, hired from recognised taxi ranks, or trips that have not been booked via an application, over the phone or via a website.

In this decision paper, we refer to unbooked commercial passenger vehicles as unbooked taxis on the basis that taxis currently meet the requirements to provide unbooked services. However, we acknowledge that other commercial passenger vehicles that meet the regulatory requirements in the future can also provide unbooked services.

When we make decisions on maximum fares for unbooked taxis, our objectives are to promote the long term interests of consumers and the efficient provision and use of unbooked taxi services. In reviewing maximum fares we considered changes in the number of trips passengers are taking in taxis, the number of taxis available to provide services, changes in the cost of providing taxi services, and submissions from stakeholders.

The release of this final decision, together with our price determination, is the last step in our review process. The new price determination will come into effect on 1 October 2018.

Appendix B has more information on our role in regulating unbooked taxis. Appendix C further explains our approach to this review.

The CPV industry is going through major changes

The commercial passenger vehicle industry is going through enormous change. This is likely to continue over the next few years.

The government has made wide reaching reforms to the industry. Fares for all services booked via telephone or mobile app have been deregulated, a new CPV services levy for each CPV service transaction has been imposed, and regulations for CPV service providers have been changed. However, the biggest change has been the replacement of the vehicle licensing regime with a registration system. This has allowed the entry of new rideshare services but also a large number of new taxi operators.

Market entry is having a significant impact on existing taxi operators. Competition in the CPV industry has become more intense. In Melbourne, there are now four competing rideshare booking

services (Didi, Ola, Taxify, and Uber). Also, new taxi booking services such as Oiii and Slyyk have emerged and the number of licensed taxis has almost doubled since September 2017.

From a consumer perspective, this competition provides a greater variety of services to choose from and less time spent waiting for CPVs (including taxis). But overall, what we are seeing is that passengers are using taxis less. This means that there are fewer taxi fares but many more available taxis and other CPVs.

For the traditional taxi industry, particularly long-time operators, this is a time of uncertainty.

We have decided to keep maximum fares for unbooked taxis unchanged

Amongst all of these changes, we are required to set maximum fares for unbooked taxis.

We are concerned that changing maximum fares for unbooked taxis now might have undesirable consequences. An increase could make passengers worse-off if the full amount is passed through in higher fares. Taxi service providers could also be worse-off if an increase in fares turns passengers away from using taxis. An increase in fares may also attract even more taxis on to the road, when present indications are that there are sufficient numbers of available taxis to service demand. More vehicles servicing fewer trips would further reduce occupancy rates, with little offsetting consumer benefit from reduced waiting times.

On the other hand, we could consider lowering fares. There are some signs that taxi service providers are under competitive pressure to reduce their fares. We have observed decreasing demand, increasing supply, and decreased costs. However, if this is the case, taxi service providers are already free to lower their fares. The fares we set are only maximums.

So, in the context of all of the changes underway in the industry, and noting taxis can already lower their fares as a way of trying to attract more passengers, **we have decided to leave maximum fares unchanged for now**. We consider this best promotes the long term interests of consumers.

As part of our review, we met with people from the commercial passenger vehicle and taxi industries. We also received written submissions on our consultation paper and draft decision. Views were mixed on what should happen to fares. Of the 49 submissions we received on our draft decision, 19 supported our proposed decision to keep maximum fares unchanged, 18 sought an increase in fares and two stated that fares should decrease.

Some submissions and stakeholders with whom we spoke raised concerns about drivers' earnings, indicating that these had fallen in recent times. We understand these concerns, however, we do not determine the earnings of drivers or anyone else in the industry. We are responsible for setting the maximum prices for the service only. How that translates into earnings will be determined by forces beyond our control. How much drivers and operators earn are influenced by the demand for

taxi services, the supply of taxis, the fares charged and how revenue is shared between drivers and operators.

Optional 'time and distance' tariffs

We will also give unbooked CPV service providers the choice of using 'time **and** distance' tariffs (see box below). However, in recognition of the fact that adopting 'time **and** distance' tariffs would impose some transitional costs on some operators, **this change is optional**. Unbooked taxi service providers can continue to use the existing 'time **or** distance' tariffs if they prefer.

'Time **and** distance' tariffs are easier for passengers to understand and, on average, give taxi service providers the same revenues as current tariffs.

'Time and distance' tariffs

A 'time **and** distance' tariff calculates fares using a time rate and distance rate that apply at the same time. Under the existing tariffs, which are 'time **or** distance' tariffs, only the time rate or distance rate applies (depending on the speed of the vehicle).

Stakeholders views were also mixed on the introduction of 'time **and** distance' tariffs. Of the 49 written submissions we received, 12 supported 'time **and** distance' tariffs, 12 were against, with the remainder not expressing a view one way or the other. Commercial Passenger Vehicles Victoria and some operators we have met with also supported 'time **and** distance' tariffs.

Drivers may now charge a cleaning fee

Following feedback from stakeholders we will also introduce a cleaning fee – allowing for recovery of reasonable costs up to a maximum fee of $120. If a passenger soils an unbooked CPV with food, drink, or bodily fluids, the driver may charge the passenger a reasonable fee for the time required to clean the vehicle.

Stakeholders were overwhelmingly in support of this addition. Of the 49 submissions we received 32 supported a cleaning fee while only two were opposed.

Avalon Airport access fee

During our consultations on our draft decision, some stakeholders informed us that Avalon Airport intends to start charging an airport access fee to taxis using its facilities. On 8 August 2018, Avalon Airport has confirmed that this is the case.

We have updated our determination so that if and when Avalon Airport begins to charge this fee taxis may pass this cost on to their passengers.

2. Passengers in the metropolitan zone are using taxis less often

As in our draft decision, we have looked at market outcomes, that is, data on the number of trips taken and taxi availability in the metropolitan zone (metro zone).[1] This information can be used to see if maximum fares need to change. This chapter provides an overview of our analysis of unbooked taxi trips and taxi availability (licence numbers and shift hours). Appendix E contains more detail.

In the metro zone, people are using taxis less: most likely because they are switching to ridesharing services. In addition to this, the number of registered taxis has also increased significantly. As a result, taxis are spending more time on the road without a passenger. This suggests that the taxi fleet is not being fully utilised: in other words there is some unused capacity.

Generally, in a market where we see unused capacity we would expect prices to go down. A decrease in price would increase the number of customers that want the services or products available. Suppliers would then use their unused capacity to service the new customers and increase their revenues without incurring additional costs.

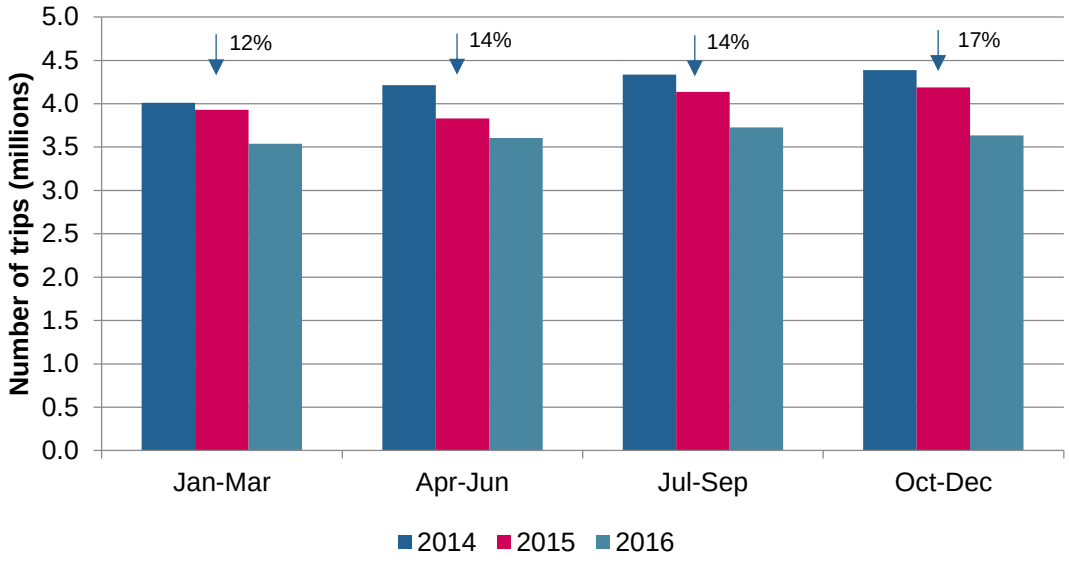
The number of trips in unbooked taxis has declined significantly

The number of unbooked trips taken in taxis in the metro zone has declined significantly since 2014 when fares were last changed. We estimate that between the fourth quarters of 2014 and 2016[2], the number of trips in unbooked taxis decreased by 17 per cent (figure 2.1).

[1] Specifically we measure market outcomes using the number of trips taken by passengers as a proxy for the demand for taxis and the number of licensed vehicles and shift hours worked by drivers as a proxy for the supply of taxis. We use occupancy rates (the percentage of the time taxis have paying passengers) and waiting times for drivers and passengers as measures of the balance between supply and demand.

[2] We only have complete trip data until the end of 2016 for the metro zone.

Figure 2.1: Unbooked taxi trips in the metro zone: 2014 to 2016



Historically, the number of taxi trips has increased as the population and economy have grown. Melbourne's population increased by five per cent[3] and the Victorian economy grew by seven per cent between 2014 and 2016.[4] Based on past patterns we would expect the number of taxi trips to increase. However, we have observed a decrease. As fares for taxis did not increase between 2014 and 2016, the drop in demand for unbooked taxis is most likely due to passengers switching to new ridesharing services or more use of taxi apps. Some stakeholders mentioned that the availability of 24 hour public transport services on weekends contributed to the drop in demand for taxis. However, our data shows that the decrease in taxi trips mainly took place outside of the hours that the additional 24 hour services operate.

There are more taxis

Our data shows that there are now many more licensed taxis than in 2014.

From October 2017 the number of licensed taxis increased significantly. The number of licensed taxis has almost doubled from 4,625 in September 2017 to 8,970 in June 2018.[5] The significant increase in taxi numbers began when entry restrictions were removed in October 2017. Figure 2.2 below shows the change in licensed taxis in the metro zone.

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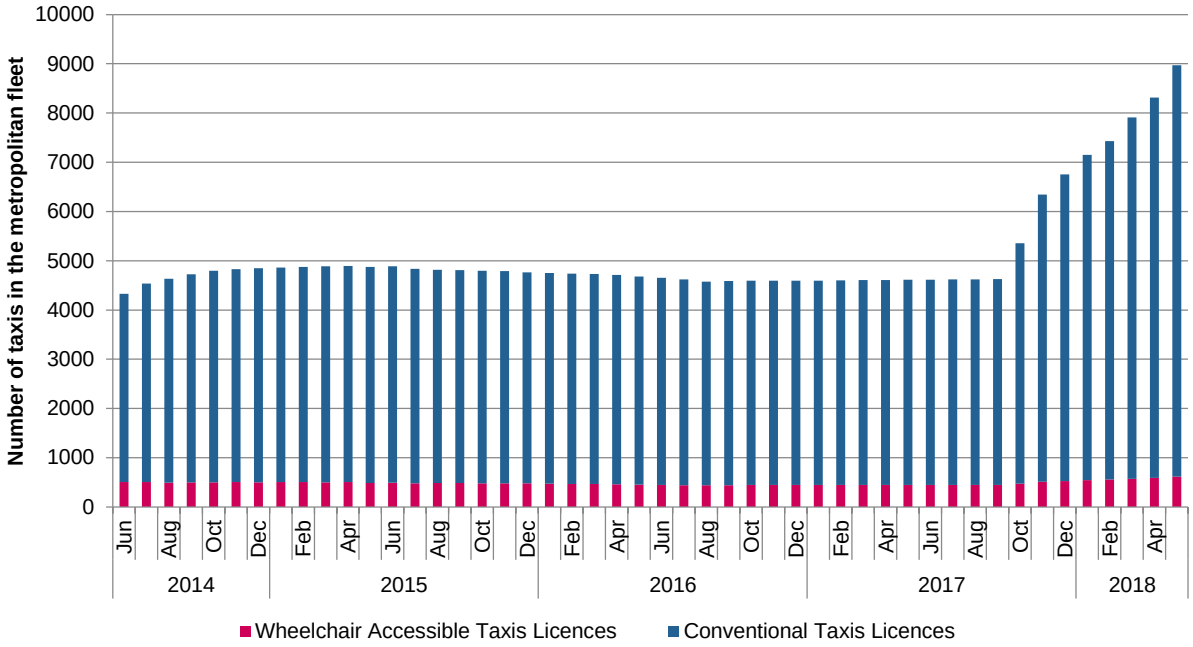
[3] ABS, 3218.0 Regional Population Growth, Australia, July 2017, accessed 20 April 2018, http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3218.02016?OpenDocument.

[4] ABS, 5220.0 Australian National Accounts: State Accounts, series ID A2336347R, November 2017, accessed 15 May 2018, http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/5220.02016-17?OpenDocument.

[5] Commercial Passenger Vehicles Victoria, Taxi and hire car industry statistics, accessed 20 July 2018, http://taxi.vic.gov.au/about-us/industry-statistics.

Figure 2.2: Change in licensed metro zone taxis: June 2014 to June 2018



Note: Licensed taxis may not be in service yet. There is often a gap between when a vehicle is licensed and when it enters active service. Due to the large demand for fitting the equipment required to operate as a taxi often operators must wait for several months until their vehicle is ready for service.

Trip numbers and taxi availability suggest there is unused capacity

Occupancy rates have decreased

Average occupancy rates[6] decreased from 29 per cent in 2014 to 27 per cent in 2016. This shows that taxi drivers were spending more time without a passenger in 2016 than in 2014. Figures 2.3 shows the decrease in occupancy rates holds for most hours of the week but is most prominent on the Friday and Saturday night peak periods (that is, from 10.00pm to 4.00am). This primarily shows the impact of ridesharing entrants on taxi demand, as the significant increase in licensed taxis was only observed from October 2017.

[6] The occupancy rate is the total number of minutes that all taxis were occupied divided by the total number of minutes each taxi was on the road. If demand for taxis is low relative to supply the occupancy rates will be lower. If demand for taxis is higher relative to supply the occupancy rates will be higher.

Figure 2.3: Change in average occupancy for each hour of the week in the metro zone - 2014 to 2016

	Change in occupancy from 2014 to 2016 Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	-2%	0%	-2%	-3%	-2%	-9%	-10%
1am-2am	-2%	-1%	-2%	-2%	-2%	-9%	-9%
2am-3am	-2%	0%	-3%	-1%	-2%	-6%	-8%
3am-4am	-1%	1%	-3%	-1%	-1%	-3%	-3%
4am-5am	0%	1%	-1%	0%	-1%	-2%	-3%
5am-6am	0%	1%	0%	1%	1%	-1%	-2%
6am-7am	-2%	-1%	-1%	-1%	0%	-1%	-4%
7am-8am	-2%	-2%	-1%	-2%	-1%	-2%	-3%
8am-9am	-1%	-3%	-2%	-1%	-2%	-1%	-1%
9am-10am	-1%	-1%	0%	-1%	-1%	0%	-1%
10am-11am	-1%	0%	0%	0%	-1%	0%	0%
11am-12pm	-1%	-1%	0%	-1%	-2%	-2%	-2%
12pm-1pm	-1%	-2%	-1%	-1%	-2%	-3%	-3%
1pm-2pm	-1%	-1%	-1%	-1%	-1%	-3%	-4%
2pm-3pm	-1%	-1%	-1%	-1%	-1%	-4%	-3%
3pm-4pm	-1%	-1%	-1%	0%	0%	-4%	-2%
4pm-5pm	-1%	-1%	1%	0%	-1%	-4%	-2%
5pm-6pm	0%	-1%	1%	1%	-2%	-4%	-1%
6pm-7pm	-1%	-2%	-1%	0%	-5%	-7%	-1%
7pm-8pm	-2%	-3%	-3%	-3%	-9%	-11%	-2%
8pm-9pm	-1%	0%	0%	0%	-7%	-10%	0%
9pm-10pm	1%	1%	1%	1%	-6%	-9%	0%
10pm-11pm	-1%	1%	0%	0%	-7%	-9%	-2%
11pm-12am	-2%	-1%	-3%	-3%	-9%	-10%	-3%

Taxi service quality has improved

Measuring taxi service quality can provide information about whether fares are too high or too low or whether fares should change at particular times.

We examined taxi service quality by looking at the following measures:

- customer wait time (calculated from taxi networks' trip data)
- a customer satisfaction index (administered by Commercial Passenger Vehicles Victoria)
- the total number of complaints about taxis lodged with Commercial Passenger Vehicles Victoria.

While these are not direct measures, they provide an indication of changes in service quality for unbooked services. For example, if customer wait times for booked trips are lower, it is likely that there is greater taxi availability and therefore that wait times for unbooked trips are also lower.

Our analysis shows that the quality of taxi services in the metro zone has generally stayed the same or improved. Further detail can be found in appendix E.

3. Passengers in the urban and large regional zone are also using taxis less often

The urban and large regional zone (urban zone) includes Geelong, Ballarat, Bendigo, Frankston, Dandenong and the Mornington Peninsula. Appendix D contains a map of the urban zone.

The data that we have on the urban zone suggests that trip numbers have decreased. It also suggests that taxis spend more of their time without passengers. As discussed in chapter two on the metropolitan zone (metro zone), this could indicate that fares should decrease.

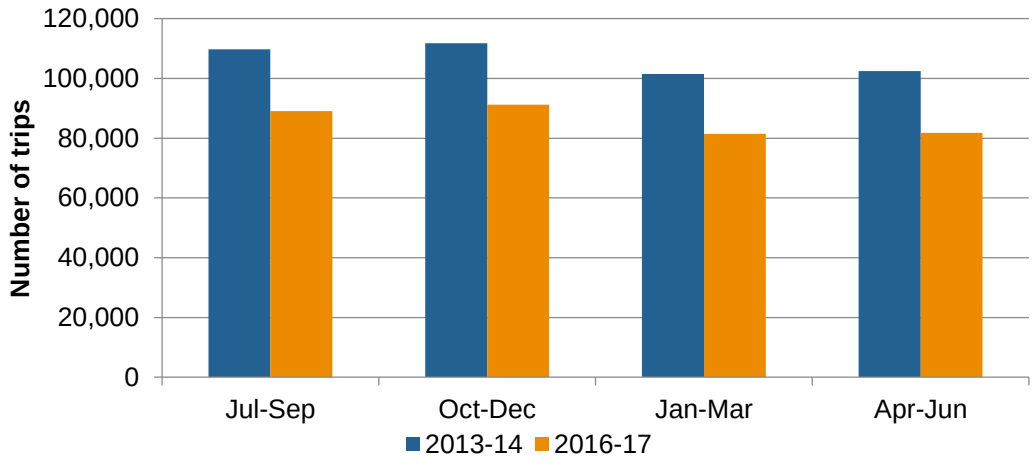
Appendix F contains more detail on our analysis of market outcomes in the urban zone.

The number of unbooked trips has significantly declined

The data that we have on the urban zone shows the number of unbooked taxi trips has declined significantly since 2014.

Figure 3.1 shows the number of trips in Geelong declined by roughly 20 per cent between 2013-14 and 2016-17.[7] We do not have trip data for Ballarat, Bendigo, or the east urban area (Dandenong, Frankston and the Mornington Peninsula) that can show trends in taxi trips. However, in meetings with network service providers from the urban zone we were told consumers are taking fewer trips on Friday and Saturday evenings due to the entry of competitors into those markets.

Figure 3.1: Unbooked taxi trips in Geelong: 2013-14 and 2016-17



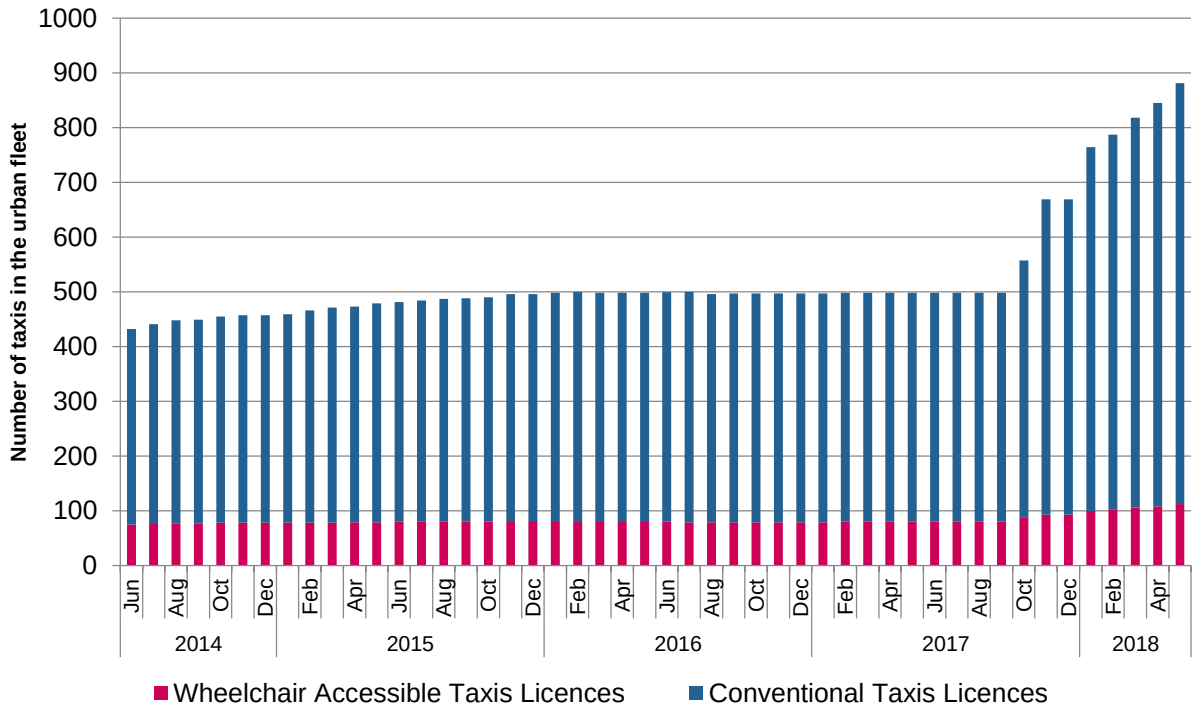
[7] We have data for different periods in the metro and urban zones. This is due to differences in the way that taxi networks have submitted their data.

There are more taxis

Data on taxi availability shows that there are many more licensed taxis than in 2014.

As in the metro zone, there was a large increase in the number of taxis licensed to operate in the urban zone late in 2017. The total number of licensed taxis in the urban zone almost doubled from 498 in September 2017 to 881 in June 2018 (figure 3.2) [8]

Figure 3.2: Licensed urban zone taxis: June 2014 to June 2018



Note: Licensed taxis may not be in service yet. There is often a gap between when a vehicle is licensed and when it enters active service. Due to the large demand for fitting the equipment required to operate as a taxi often operators must wait for several months until their vehicle is ready for service.

Trip numbers and taxi availability suggest there is unused capacity

Occupancy rates increased in Geelong but there is no evidence there are too few taxis

On average, occupancy rates in Geelong have increased. Between 2013-14 and 2016-17 occupancy rates increased from 22 per cent to 24 per cent. While this suggests that taxis are spending less time unoccupied, this data relates to the period before the large increase in licence numbers shown in figure 3.2.

[8] Commercial Passenger Vehicles Victoria, Taxi and hire car industry statistics, accessed 20 July 2018, http://taxi.vic.gov.au/about-us/industry-statistics

Occupancy rates in Ballarat are generally higher for all times of the week than in Geelong, but on average they are similar to those in the metro zone. This suggests that in Ballarat taxis are spending a lot of time on the road without passengers.

The data that we have for the east urban area suggests that occupancy rates there have decreased.

Service providers in Bendigo have indicated that occupancy rates there have also decreased.

Taxi service quality has remained stable

We used customer wait time and the total number of complaints about taxis lodged with Commercial Passenger Vehicles Victoria to look at trends in service quality for the urban zone. These measures indicate that the quality of taxi services in the urban zone has stayed roughly the same.

4. Costs have decreased

Since 2014, when we last changed taxi fares for the metropolitan zone (metro zone), we estimate the overall cost of operating a taxi has decreased for many taxi operators. This has been largely driven by decreases in licence costs. However, overall the other costs associated with operating a taxi have also decreased. Generally we would expect prices to fall in a market where costs have decreased.

Licence reform has significantly reduced costs for many operators

With the availability of low cost registration, which can be obtained for $53.80, drivers and operators are no longer required to rent a taxi licence from a licence holder. For many taxi operators this is likely to significantly reduce costs. Prior to the removal of high licence fees, the average annual amount paid by taxi operators to licence holders was around $18,000 per taxi.[9]

We measure changes in other costs using our taxi cost index

During our 2013-14 fare review, we conducted a survey of taxi operators in the metro zone to understand their costs. Using the information from this survey we were able to identify taxi operators' key cost components and their shares of total costs. To measure how these costs change over time, we use publicly available price indices for each cost component.[10] Our taxi cost index is composed of an index and cost share for each cost component.

With this information we are able to estimate the total change in taxi costs (excluding licence costs) for conventional and wheelchair accessible taxis.

Overall the taxi cost index showed costs have decreased

Using our taxi cost index we are able to estimate how costs for taxis have changed since 2014.

Table 4.1 shows that, excluding licence costs, the cost of operating conventional taxis in the metro zone decreased slightly in nominal terms between March 2014 and June 2018. The decrease in costs was mostly driven by decreases in registration and fuel costs. Generally we would expect prices to fall in a market where costs have decreased.

[9] Taxi Services Commission, Annual Report 2016-17, October 2017, p. 25.

[10] With the exception of fuel prices; we use proprietary data from FuelTRAC. See the appendix G on cost analysis for further information.

Table 4.1: Change in taxi cost index for conventional taxis in the metro zone: March 2014 to June 2018

Cost Components	Change for cost component	Cost share	Contribution to overall change in index
Fuel	-10%	34%	-3%
Network (equipment)	-20%	7%	-1%
Network (labour)	10%	7%	1%
Comprehensive insurance	8%	6%	0%
Workers compensation	10%	2%	0%
Vehicle	-5%	12%	-1%
Registration	-68%	4%	-3%
Repairs and maintenance	9%	18%	2%
Administration	10%	12%	1%
Total*		100%	-4%

Note: Due to rounding, the totals do not equal the sum of the rows

Overall the decrease in the taxi cost index for a conventional taxi in the metro zone was 4 per cent in nominal terms. The costs of operating a wheelchair accessible vehicle also decreased.[11]

Fuel costs

Data from FuelTRAC shows that LPG prices in Melbourne have decreased by 10 per cent between March 2014 and June 2018.[12] March 2014 is the relevant point to compare current prices with because that is when we released our final report for our 2014 fare review.

The ACCC's quarterly petroleum industry monitoring reports also show that LPG prices have decreased since March 2014. According to the reports, Australian LPG prices decreased by 4 per cent between March 2014[13] and March 2018[14].

[11] See Appendix G for our analysis on operating costs for wheelchair accessible vehicles.

[12] If we compare FuelTRAC's data for March 2014 and March 2018, LPG prices have decreased by 11.5 per cent.

[13] ACCC, Quarterly report on the Australian petroleum industry – March 2015, p.25.

[14] ACCC, Report on the Australian petroleum market – March 2018, p. 26.

Registration costs

In April this year the Victorian government reduced TAC charges for taxis in metropolitan Melbourne from $2586.10 to $510.40. This reduction in the TAC charge was designed to ensure a level and fairer playing field between taxis and other commercial passenger vehicles.[15]

We cannot control driver earnings

A common theme in submissions to our draft decision was that driver earnings need to increase to keep pace with the cost of living.[16]

We understand these concerns, however, we do not determine the earnings received by drivers or anyone else in the industry. How much drivers and operators earn is influenced by: the demand for taxi services, the supply of taxis, the fares charged and how revenue is shared between drivers and operators. We are responsible for setting the maximum fares for the service only. We have no control over the share of the revenues that drivers receive from taxi operators.

Operators must give drivers at least 55 per cent of the total fare box revenue, but they can give more. Given that the cost of operating a taxi appears to be decreasing, and that there are now a greater number of services competing for drivers, some operators may offer drivers a larger share of revenue.

Current fares account for the commercial passenger vehicle levy

Under the Commercial Passenger Vehicle Industry Act 2017, commercial passenger vehicle service providers are liable for a levy imposed on all commercial passenger vehicle transactions (the CPV levy). The purpose of the CPV levy is to partly fund regulation of the industry and to fund transitional assistance payments made to incumbent industry participants affected by recent reforms.[17]

In May 2018 we made a determination to give service providers the option of transparently recovering that cost of the CPV levy by adding a new fare component to the schedule of maximum hiring rates.[18] This is consistent with the government's intent that "booking service providers and

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[15] Minister for Public Transport, Reforms Supporting Drivers and Passengers, 24 April 2018, accessed on 2 August 2018, available at: https://www.premier.vic.gov.au/reforms-supporting-drivers-and-passengers/.

[16] Greg Gilliver, submission received on 5 July 2018; Karam Ghuman, submission received on 12 July 2018; Jitendra Prasad, submission received on 16 July 2018; Anonymous, submission received on 18 July 2018; Arminder Singh, submission received on 19 July 2018; Satnam Singh, submission received on 19 July 2018.

[17] Commercial Passenger Vehicle Industry Act 2017, s.1.

[18] Essential Services Commission, Determination of Maximum Taxi Fares (Recovery of Commercial Passenger Vehicle Services Levy from 1 July 2018), May 2018.

trip providers will absorb or pass on the costs of the levy as they see fit in the new competitive environment."[19]

[19] Jacinta Allan, the Minister for Public Transport, Parliamentary Debates (Hansard): Legislative Assembly Fifty-Eighth Parliament - First Session, 23 February 2017, p. 399.

5. Optional 'time and distance' tariffs

We have decided to give unbooked commercial passenger vehicle (CPV) service providers the ability to choose between two tariff structures: the existing tariff structure and a new more transparent structure. Both of these tariff structures will, on average, provide taxi service providers with the same amount of revenue.

Under the existing tariffs, which are 'time **or** distance' tariffs, only the distance rate or time rate applies (depending on the speed of the vehicle).

The new tariff structure is a 'time **and** distance' tariff. A 'time **and** distance' tariff calculates fares using a distance rate and time rate that apply at the same time.

'Time and distance' tariffs

A 'time **and** distance' tariff calculates fares using a time rate and distance rate that apply at the same time. Under the existing tariffs, which are 'time **or** distance' tariffs, only the time rate or distance rate applies (depending on the speed of the vehicle).

Using 'time and distance' tariffs is optional

Some stakeholders consider that the current time **or** distance tariff does not need to be changed.[20] We are not replacing the current time **or** distance tariff. We are introducing an optional time **and** distance tariff structure, which will be easier for passengers to understand. It will be up to unbooked taxi operators to decide if they use 'time **and** distance' or 'time **or** distance' tariffs.

The average fare will be the same under both tariff systems

We have calculated our 'time **and** distance' tariffs so that on average fares will be the same regardless of whether our maximum 'time **or** distance' tariffs or 'time **and** distance' tariffs are used.[21] This has been checked by comparing the estimated total revenue and average fare at one kilometre intervals for each tariff system. More detail can be found in appendix K.

[20] Karam Ghuman, submission received on 12 July 2018; Anonymous, submission received on 12 July 2018; Anonymous, submission received on 12 July 2018; Jitendra Prasad, submission received on 16 July 2018.

[21] Fares for individual journeys will be different, but on average fares will be the same under the two tariff structures.

'Time and distance' tariffs are better for consumers

'Time **and** distance' tariffs have a number of advantages compared to 'time **or** distance' tariffs. 'Time **and** distance' tariffs make it easier:

- for passengers to understand tariff schedules
- to estimate the cost of a trip
- to compare the prices for different CPV services.

For these reasons, giving unbooked taxis the ability to use a 'time **and** distance' tariff should make it easier for them to compete with each other and other CPV services.

The new 'time **and** distance' tariffs can be found in appendix A.

'Time and distance' tariffs are easier to understand and estimate

A passenger can more easily estimate what the fare is likely to be using a 'time **and** distance' tariff by:

- multiplying the trip distance by the distance rate
- multiplying the trip duration by the time rate
- adding the two together with the flagfall.

Calculating a fare with the existing 'time **or** distance' tariff system is more complicated. To calculate a fare under a 'time **or** distance' tariff one must:

- calculate how many kilometres will be charged at the distance rate and how many minutes will be charged at the waiting rate (to do this one must know what speed the vehicle will travel at all times during the trip)
- multiply the distance rate by the number of kilometres charged at the distance rate
- multiply the waiting rate by the number of minutes charged at the waiting rate
- add the two together with the flagfall.

Interested passengers would be better placed to estimate the distance of their trip and the time it will take, than to try to estimate the speed they will be travelling at all times during the trip. This means that more passengers will be better placed to estimate a fare with a 'time **and** distance' tariff than with a 'time **or** distance' tariff.

We note that in general, stakeholders agreed 'time **and** distance' tariffs are easier to understand.[22]

[22] Habib Mohammed, submission received on 12 July 2018; Arminder Singh, submission received on 19 July 2018; 13CABs submission received on 10 August 2018; CPVV on its submission to our consultation paper and some operators and network service providers we have met with.

It is easier to compare prices using 'time and distance' tariffs

Because it might be easier to estimate fares using a 'time **and** distance' tariff, it would also be easier to compare fares between service offerings.

For example, a passenger might have a choice between two CPV services offering 'time **or** distance' tariffs. One service has a higher distance rate, while the other has a higher waiting rate. In this example, it would not be possible for the average passenger to immediately tell which service is cheaper.

Under a 'time **and** distance' tariff, a passenger can more easily compare fare offerings with some simple mental arithmetic.

In practice, passengers are most likely to compare booked and unbooked services. Most rideshare services calculate their fares using 'time **and** distance' tariffs. Having the maximum fares for taxis in the same format as those for rideshare services will make it easier for passengers to compare the prices for those services. Even if taxi service providers do not use the 'time **and** distance' tariffs, passengers will be able to access the maximum 'time **and** distance' tariffs on our, or Commercial Passenger Vehicles Victoria's, website to make comparisons between taxi and rideshare price offerings.

We have considered the challenges of using 'time and distance' tariffs

We are aware of some issues that will complicate using 'time **and** distance' tariffs. The first is that not all current meters can calculate 'time **and** distance' tariffs. The second relates to potential disagreements between drivers and passengers.

Not all meters can be programmed to apply a 'time and distance' tariff

It is our understanding that many of the older meters still in use by taxis cannot be programmed to calculate 'time **and** distance' tariffs. We also note that updating meters can be costly and also take vehicles off the road.[23]

By giving operators the choice between using the current tariffs and the new 'time **and** distance' tariffs we will not be forcing operators to invest in new meters or update their existing ones. Instead, it will be up to them whether they upgrade their meter or wait until a later time to take advantage of the new tariffs.

In this way, we have given the industry the option to make their fares more flexible without forcing potentially unnecessary expenditures on them.

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[23] Anonymous, submission received on 12 July 2018.

Having two different tariff structures could create confusion for passengers

We are aware that having two different tariff structures could potentially cause confusion for passengers. It could also cause disagreements between passengers and drivers about whether the current tariffs or the 'time **and** distance' tariffs should apply.

In practice, drivers do not have a choice of which set of tariffs to apply at the beginning of trips. The decision on whether to use 'time **and** distance' or 'time **or** distance' tariffs is made by the operator (the owner of the vehicle) when they program their meters. As neither passengers nor drivers will have the choice of which set of tariffs will apply at the beginning of the trip, the risk of disagreement on whether 'time **and** distance' or 'time **or** distance' tariffs should apply will be low.

To minimise this risk we leave the decision on whether to use 'time **and** distance' or 'time **or** distance' tariffs to taxi operators at the time that they program their meters. The fare sticker in the vehicle should also clearly indicate which fare structure has been applied. This will help reduce the opportunities for disagreement between passengers and drivers. Drivers will not be able to choose a different set of tariffs for individual trips.

Also, while passengers might be confused about whether 'time **and** distance' or 'time **or** distance' tariffs apply, the current 'time **or** distance' tariffs are already a source of confusion for passengers. 'Time **or** distance tariffs' are difficult to understand. If 'time **and** distance' tariffs are used instead, it will be easier for passengers to understand how they are being charged.

'Time and distance' tariffs are predictable

One concern that was raised in meetings with stakeholders was that under 'time **and** distance' tariffs fares might be less predictable. That is, people regularly using taxis for a particular route, for example between the supermarket and home, might experience greater range of fares. We compared the variability of both tariff systems by comparing the fare under the current tariffs to what it would have been under 'time **and** distance' tariffs for Tariff 1 trips in the metropolitan zone. Fares were more likely to be closer to the average fare if 'time **and** distance' tariffs were used. A greater number of trips tended to be within one, two, and three standard deviations of the mean using 'time **and** distance' tariffs, which means that fares are actually likely to be less variable using time **and** distance tariffs.

6. A cleaning fee will allow drivers to recover reasonable costs

Occasionally taxi passengers soil the vehicle they have hired by, for example, vomiting or spilling food or drink. When this happens the driver must take the vehicle out of service for cleaning. This usually takes between one and two hours, but in particularly bad cases the vehicle can lose an entire shift.

A taxi driver raised this issue in response to our consultation paper. His concern was that if passengers soil a vehicle, they are not required to compensate drivers for the time required to clean the vehicle. In our draft decision we sought stakeholder views on whether we should introduce a cleaning fee. There is strong support from stakeholders for the introduction of a cleaning fee.

Our decision is to allow taxi drivers to charge a reasonable cleaning fee of to up to a maximum of $120. Soiling a taxi imposes real costs on taxi service providers. As well as having to clean the vehicle, drivers lose income during the time the vehicle is off the road. A cleaning fee also ensures that the person responsible bears at least some of the costs associated with cleaning a soiled vehicle.

The cleaning fee is based on lost revenues and price benchmarks

Our decision is to allow taxi drivers to charge a reasonable cleaning fee of up to a maximum of $120. It is within the range of cleaning fees suggested by most stakeholders, it will allow drivers to recover the lost revenues associated with cleaning and it is the point where the fees charged by taxis and ride share vehicles in Australia intersect.

Price benchmarks suggest the cleaning charge should be $120

Maximum cleaning fees allowed for taxis in other Australian jurisdictions range from $50 to $120. Rideshare providers in Victoria currently charge a maximum cleaning fee ranging from $120 to $150. Table 6.1 shows the comparison.

Table 6.1: Cleaning fee benchmarks

	Maximum cleaning fee
Taxis in other Australian jurisdictions (excluding GST)	$50 - Northern Territory[24] $70 - Tasmania[25] $88 - South Australia[26] $117 - Queensland[27] $120 - New South Wales[28] $49 per hour - Western Australia[29]
Rideshare providers in Melbourne (including GST)	$50 for minor spills, $90 for mid-range spills $120 for major spills - Taxify[30] $150 - GoCatch[31] Nationwide industry average for professional cleaning - Uber[32]

Given that cleaning fees for ride share services seem to be in most cases higher than those for taxis, it seems reasonable to adopt the upper end of the maximum cleaning fees used in other jurisdictions.

A cleaning fee of $120 will cover the revenue lost while drivers clean their vehicles

In meetings with service providers, they shared that the issue for them is the time the taxi is off the road rather than the actual cost of cleaning the vehicle. Most taxi drivers clean the vehicle themselves so do not incur professional cleaning costs. We also observed that in NSW, IPART has also only provided an allowance for the two hours the taxi is off the road not earning, and not for the actual cleaning.[33]

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[24] Northern Territory Government Information Services and Services, https://nt.gov.au/__data/assets/pdf_file/0005/279050/darwin-tariff.pdf (accessed on 24 July 2018).

[25] Taxi Industry Regulations 2008 (Tas), Schedule 3, http://classic.austlii.edu.au/au/legis/tas/num_reg/tir20082008n111364/sch3.html (accessed on 24 July 2018).

[26] Information and Services for South Australians, https://www.sa.gov.au/topics/driving-and-transport/other-forms-of-transport/taxis (accessed on 24 July 2018).

[27] Department of Transport and Main Roads, Information Bulletin PT 501, https://www.tmr.qld.gov.au/search-results.aspx?query=PT+501 (accessed on 25 July 2018).

[28] NSW Taxi Fares Order 2018 https://www.transport.nsw.gov.au/projects/programs/point-to-point-transport/taxi-information (accessed on 24 July 2018).

[29] Taxi Regulations 1995 (WA), cl 6B(4), http://classic.austlii.edu.au/au/legis/wa/consol_reg/tr1995180/s6b.html (accessed on 24 July 2018).

[30] Taxify, https://support.taxify.eu/hc/en-us/articles/360001205094-Cleaning-Fees (accessed on 24 July 2018).

[31] GoCatch, https://www.gocatch.com/legal/ (accessed on 24 July 2018).

[32] https://help.uber.com/en-AU/h/21dcbcf7-8fe0-4dd0-a906-06a0a427dc34 (accessed on 29 June 2018).

[33] IPART 2017, Review of taxi fares in NSW and taxi licences outside Sydney from 1 July 2018: Draft Report, p.65.

Cleaning a soiled vehicle could take an hour or two depending on the extent of mess.[34] At the peak waiting rate in the metropolitan zone of 69.5 cents per minute a cleaning fee of up to a maximum of $120 will cover nearly 3 hours of downtime.

Most stakeholders suggested a cleaning fee of around $120

The amount suggested by the available price benchmarks was similar to what stakeholders suggested. Most stakeholders also suggested a cleaning fee of around $100.[35] This suggests that a maximum cleaning fee of $120 is a reasonable amount.

The cleaning fee may only be charged in some circumstances

Drivers will only be able to charge a fee if a passenger soils the vehicle with: food, drink, or bodily fluids.

We have limited the events to which a cleaning fee may apply in response to concerns raised by stakeholders. In particular, in meetings some stakeholders voiced concerns that vision impaired passengers may be charged a cleaning fee when their guide dog sheds hair in the vehicle. Other examples given were that drivers may charge a fee if a passenger left gravel on a foot well mat or entered the vehicle with a jacket wet from the rain.

It is reasonable for drivers to charge a cleaning fee in the case that a passenger leaves the vehicle in a state in which it is no longer fit for service. However, it is not reasonable for drivers to charge a fee for soiling that would take place during the day to day use of a vehicle. For these reasons we have limited the application of the cleaning fee.

Drivers should only charge a reasonable cleaning fee

We would not expect drivers to charge a cleaning fee of $120 in all circumstances. In the case that the passenger has not made a significant mess in the vehicle we would expect drivers to charge a cleaning fee which is below the maximum allowed rate. An example of this is that the passenger may have only soiled a removable mat in one of the vehicle's foot wells. We would expect a lower cleaning fee in this case to reflect the fact that these mats are removable and easily cleaned.

In our determination we will use the words 'drivers may charge a **reasonable** cleaning fee of **up to** a maximum of $120**'**. This will give passengers the ability to challenge cleaning fees that they consider are not reasonable in the circumstances. Also, the CPVI Regulations 2018 require fare

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[34] The Taxi Council of NSW, on it submission to IPART, considers that two hours is a reasonable basis for the cleaning fee (that is, an hour for downtime and an hour for cleaning). One stakeholder submitted the same view to us.

35 Anonymous, submission received on 12 July 2018; Rajesh Gupta, submission received on 12 July 2018; Jitendra Pasad, submission received on 16 July 2018; and Anonymous, submission received on 19 July 2018.

information to be displayed inside and outside of an unbooked CPV. Fare information will include the cleaning fee.

Under the CPVI Act, it is an offence for the driver of an unbooked taxi to charge or ask for a fare in excess of the maximum amount permitted by our fare determination.[36] Providers of unbooked services are also required to investigate and address complaints promptly.[37] If the service provider does not resolve the passenger's complaint they may also lodge their complaint with Commercial Passenger Vehicles Victoria.

[36]Commercial Passenger Vehicle Industry Act 2017, s.110G.

[37]Commercial Passenger Vehicle Industry Regulations 2018, clause 24.

7. Avalon Airport access fee

In August 2018, Avalon Airport informed us that it intends to start charging an airport access fee to taxis using its facilities within the next six months.

Some airports in Australia charge airport access fees to taxi drivers for the use of taxi ranks and associated facilities. Melbourne Airport is the only airport in Victoria that currently charges an access fee. The airport rank fee is a surcharge on top of the regular fare that taxi drivers may charge customers for picking them up from taxi ranks. The airport rank fee is effectively a pass through of the access fee.

Melbourne Airport sets its access fee. We do not have a role in determining or reviewing the access fee that Melbourne Airport and other Victorian airports, including Avalon Airport, may charge taxis for the use of their facilities. We are only responsible for determining the maximum fares taxi service providers may charge passengers.

Airport access fees are a real cost to taxi providers and can only be recovered from passengers if we include a corresponding airport rank fee in our fare determination.

To help improve the transparency of the access fee, our decision is that Avalon Airport's access fee would only be allowed to be passed through to customers (through a rank fee) if Avalon Airport publishes the access fee on its website and in a daily newspaper generally circulating in Victoria. We believe these measures will help communicate the introduction of the access fee to a wide audience. This reflects the arrangement that already exists for Melbourne Airport's access fee.

We learned about Avalon Airport's plan to introduce an airport access late in the process of making our maximum fare determination. As a result, we were not able to raise Avalon Airport's access fee during our consultation on our draft decision. In making this final decision we note that stakeholders generally support the similar arrangement we put in place for Melbourne Airport in October 2016. We have amended the fares determination to include new provisions mirroring those that currently exist for Melbourne Airport so that the same mechanism would apply to Avalon if it introduces an access fee.

8. This decision will come into effect in October

The release of this final decision, together with our price determination, is the last step in our review process.

We released this final decision at the same time we released our price determination. This new price determination will come into effect on 1 October 2018. It amends our last determination made on 16 May 2018. The determination is available on our website: www.esc.vic.gov.au.

Current fares will apply until our determination comes into effect

The maximum fares[38] we set in May 2018 will continue to apply for **unbooked** taxis until our new price determination comes into effect on 1 October 2018.

You can contact us if you have questions about our decision

You can send any questions about this final decision paper to **cpvfares@esc.vic.gov.au**. You may also send your questions via fax to 03 9032 1303 or by mail, marked:

Attention: Transport Division
Essential Services Commission
Level 37, 2 Lonsdale Street
Melbourne VIC 3000.

[38] Essential Services Commission, Determination of Maximum Taxi Fares(Recovery of Commercial Passenger Vehicle Services Levy from 1 July 2018, May 2018.

Appendix A: Maximum fares

Table A.1: Maximum fares for the metro zone and east urban area - 'time or distance' tariffs: unchanged

	Tariff 1 'Day' (9am-5pm)	Tariff 2 'Overnight' (5pm-9am, excluding peak)	Tariff 3 'Peak' (Fri & Sat nights 10pm-4am)
Standard fare components		**Maximum charge up to**	
Flagfall ($)	4.20	5.20	6.20
Distance rate ($/km) (when speed is above 21 km/hr)	1.622	1.804	1.986
Waiting time ($/min) (when speed is below 21 km/hr)	0.568	0.631	0.695
Other fare components (applicable to tariffs 1, 2 and 3)			**Maximum charge up to**
High occupancy fee [(a)]			$14.00
Melbourne Airport taxi rank fee[(b)]	For trips from the airport taxi rank		rates vary
Avalon Airport taxi rank fee[(c)]	For trips from the airport taxi rank		rates vary
Holiday rate[(d)]			Tariff 3 rates
CPV levy recovery fee			$1.10
CityLink and EastLink tolls[(e)]			rates vary
Cleaning fee		Up to a maximum of $120	

(a) For taxis carrying 5 to 11 passengers.

(b) As published by Melbourne Airport in a daily newspaper generally circulating in Victoria and on Melbourne Airport's website.

(c) As published by Avalon Airport in a daily newspaper generally circulating in Victoria and on Avalon Airport's website.

(d) For trips commencing on Christmas Day, Boxing Day, New Year's Day and from 6pm on New Year's Eve.

(e) As published from time to time in the Victorian Government Gazette in accordance with the Melbourne City Link Act 1995 or the EastLink Project Act 2004 as applicable.

Table A.2: Maximum fares for Geelong, Ballarat and Bendigo - 'time or distance' tariffs: unchanged

Fare component		Maximum charge
Standard fare components		
Flagfall ($)		3.60
Distance rate ($/km) (applies when speed is above 21 km/hr)		1.838
Waiting time ($/min) (applies when speed is below 21 km/hr)		0.643
High occupancy trips		
For trips with 5-11: not applicable for wheelchair passenger trips		
Flagfall ($)		3.60
Distance rate ($/km) (applies when speed is above 21 km/hr)		2.757
Waiting time ($/min) (applies when speed is below 21 km/hr)		0.965
Other fare components		
Late night fee	For trips commencing between 7pm on Friday and Saturday nights through to 6am the following morning; and from midnight to 6am on all other days	$3.40
Holiday rate [(a)(b)]		$4.20
CPV levy recovery fee		$1.10
CityLink and EastLink tolls [(c)]		rates vary
Melbourne Airport taxi rank fee[(d)]	For trips from the airport taxi rank	rates vary
Avalon Airport taxi rank fee[(e)]	For trips from the airport taxi rank	rates vary
Cleaning fee	Up to a maximum of $120	

(a) For trips commencing between 7pm on evenings prior to all public holidays, through to 6am the following mornings and trips commencing on Christmas Day, Boxing Day, New Year's Day and from 6pm on New Year's Eve.

(b) The 'late night fee' does not apply during times that the holiday rate applies.

(c) As published from time to time in the Victorian Government Gazette in accordance with the Melbourne City Link Act 1995 or the EastLink Project Act 2004 as applicable.

(d) As published by Melbourne Airport in a daily newspaper generally circulating in Victoria and on Melbourne Airport's website.

(e) As published by Avalon Airport in a daily newspaper generally circulating in Victoria and on Avalon Airport's website.

8.1 Table A.3: Maximum fares for the metro zone and east urban area - proposed 'time and distance' tariffs: new

	Tariff 1 'Day' (9am-5pm)	Tariff 2 'Overnight' (5pm-9am, excluding peak)	Tariff 3 'Peak' (Fri & Sat nights 10pm-4am)
Standard fare components		**Maximum charge up to**	
Flagfall ($)	4.20	5.20	6.20
Distance rate ($/km) (at all times)	1.342	1.490	1.648
Duration rate ($/min) (at all times)	0.344	0.379	0.408
Other fare components (applicable to tariffs 1, 2 and 3)			**Maximum charge up to**
High occupancy fee [(a)]			$14.00
Melbourne Airport taxi rank fee[(b)]	For trips from the airport taxi rank		rates vary
Avalon Airport taxi rank fee[(c)]	For trips from the airport taxi rank		rates vary
Holiday rate [(d)]			Tariff 3 rates
CPV levy recovery fee			$1.10
CityLink and EastLink tolls [(d)]			rates vary
Cleaning fee		Up to a maximum of $120	

(a) For taxis carrying 5 to 11 passengers.

(b) As published by Melbourne Airport in a daily newspaper generally circulating in Victoria and on Melbourne Airport's website.

(c) As published by Avalon Airport in a daily newspaper generally circulating in Victoria and on Avalon Airport's website.

(d) For trips commencing on Christmas Day, Boxing Day, New Year's Day and from 6pm on New Year's Eve.

(e) As published from time to time in the Victorian Government Gazette in accordance with the Melbourne City Link Act 1995 or the EastLink Project Act 2004 as applicable.

Table A.4: Maximum fares for Geelong, Ballarat and Bendigo - proposed 'time and distance' tariffs: new

Fare component		Maximum charge
Standard fare components		
Flagfall ($)		3.60
Distance rate ($/km) (at all times)		1.494
Waiting time ($/min) (at all times)		0.491
High occupancy trips		
For trips with 5-11 passengers: not applicable for wheelchair passenger trips		
Flagfall ($)		3.60
Distance rate ($/km) (at all times)		2.441
Waiting time ($/min) (at all times)		0.529
Other fare components		
Late night fee	For trips commencing between 7pm on Friday and Saturday nights through to 6am the following morning; and from midnight to 6am on all other days	$3.40
Holiday rate [(a)(b)]		$4.20
CPV levy recovery fee		$1.10
CityLink and EastLink tolls [(c)]		rates vary
Melbourne Airport taxi rank fee[(d)]	For trips from the airport taxi rank	rates vary
Avalon Airport taxi rank fee[(e)]	For trips from the airport taxi rank	rates vary
Cleaning fee	Up to a maximum of $120	

(a) For trips commencing between 7pm on evenings prior to all public holidays, through to 6am the following mornings and trips commencing on Christmas Day, Boxing Day, New Year's Day and from 6pm on New Year's Eve.

(b) The 'late night fee' does not apply during times that the holiday rate applies.

(c) As published from time to time in the Victorian Government Gazette in accordance with the Melbourne City Link Act 1995 or the EastLink Project Act 2004 as applicable.

(d) As published by Melbourne Airport in a daily newspaper generally circulating in Victoria and on Melbourne Airport's website.

(e) As published by Avalon Airport in a daily newspaper generally circulating in Victoria and on Avalon Airport's website.

Appendix B: Our role is to set the maximum fares for unbooked CPV services

The Essential Services Commission must determine (set) maximum fares for unbooked commercial passenger vehicle (CPV) trips that begin in Victoria's metropolitan zone (metro zone) and urban and large regional zones (the urban zone).[39] Unbooked commercial passenger vehicle service means a commercial passenger vehicle service that is provided other than as a result of the provision of a booking service. The Commercial Passenger Vehicle Industry Act 2017 and the Essential Services Commission Act 2001 govern this role.

In this decision paper, we refer to unbooked commercial passenger vehicles as unbooked taxis on the basis that taxis currently meet the requirements to provide unbooked services. However, we acknowledge that other commercial passenger vehicles that meet the regulatory requirements in the future can also provide unbooked services.

Our objectives

The purposes of the Commercial Passenger Vehicle Industry Act 2017 include establishing a new regulatory regime for the CPV industry, with new safety duties for CPV participants and certain protections for consumers and CPV drivers.[40] Our role determining maximum fares for unbooked services is one of these protections.

Our specific objective under the Commercial Passenger Vehicle Industry Act 2017 for determining maximum fares is to promote the efficient provision and use of unbooked CPV services.[41] This objective complements our objective under the Essential Services Commission Act, which is to promote the long term interests of Victorian consumers.[42] We consider the interests of consumers are served by having: a ceiling on fares (a maximum) that can be charged for unbooked services, good service quality and diverse CPV service offerings.[43]

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[39] Before determining fares we typically undertake a fare review. A price determination is the legislative instrument we use to set maximum fares.

[40] Commercial Passenger Vehicle Industry Act 2017, section 1.

[41] Commercial Passenger Vehicle Industry Act 2017, section 110C.

[42] Essential Services Commission Act 2001, section 8.

[43] Essential Services Commission, Fare review for unbooked commercial passenger vehicle services – consultation paper, February 2018, p.7.

We set maximum fares for unbooked taxis

The CPV market is the hire of point–to–point vehicle transport. This is different to other forms of transport that, for example, run on pre-specified routes.

It is useful to divide the market for CPVs into two submarkets, depending on the way passengers obtain services:

- booked: passengers reserve prior to travel through an app, online or over the phone
- unbooked: passengers hail from the street or take a vehicle from a rank.

To provide unbooked CPV services a vehicle must meet certain requirements. Taxis are CPVs that meet these requirements.[44] We determine fares for unbooked CPV services only.

The locations where we set maximum fares for unbooked taxis

Our determination for maximum fares for unbooked taxi services applies only to trips that begin in the metro and urban zone.[45] The metro zone covers most of metropolitan Melbourne. The urban zone includes Geelong, Ballarat, Bendigo, Frankston, Dandenong and the Mornington Peninsula.

In all other parts of Victoria taxi service providers set their own prices for unbooked fares.

[44] Commercial Passenger Vehicle Industry Regulations 2018. Commercial Passenger Vehicles Victoria, A new industry, a new approach to regulation, accessed on 20 July 2018, http://taxi.vic.gov.au/about-us/a-new-industry.-a-new-approach-to-regulation.

[45] Commercial Passenger Vehicle Industry Act 2017, section 110A.

Appendix C: How we have assessed fares

Our approach to this review

In coming to our final decision on maximum fares, we assessed market outcomes and changes in operators' costs. This is consistent with the approach we set out in our consultation paper[46] and used in our draft decision.[47] In general stakeholders supported our proposed approach to this fare review.[48]

We have analysed market outcomes

Market outcomes are the levels of supply and demand that prevail in the commercial passenger vehicle (CPV) industry. Analysing the balance between supply and demand for CPVs helps show us what should happen to the level and structure of the maximum fares at particular times and places — that is, whether there is a case for fares to go up, go down or stay the same (including at different times of the day, week or year).

All of the market outcomes in the CPV industry that we have observed have occurred in response to the maximum taxi fares we determined in 2014. This makes those fares a good starting point for assessing the value of any proposed maximum fares.

We reviewed taxi costs

We also reviewed changes in taxi operators' costs to inform us about whether maximum fares are still sufficient to cover unbooked CPV service providers' efficient costs to maintain service levels.

To assess efficient costs, among other things, we considered:

- **Current market conditions** – Changes in economic conditions affect the inputs used to provide CPV services.
- **Licence fees** - The new regime has removed licence fees that were once paid to operate CPVs.
- **Cost sharing between booked and unbooked services** - Many service providers supply both booked and unbooked services. Any vehicle fitted to accept unbooked services would also be allowed to provide booked services.

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[46] Essential Services Commission, Fare review for unbooked commercial passenger vehicle services: consultation paper, February 2018, p.9.

[47] Essential Services Commission, Unbooked commercial passenger vehicle fare review 2018: draft decision, 21 June 2018, Appendix K, p.103.

[48] Essential Services Commission, Unbooked commercial passenger vehicle fare review: draft decision, Appendix C, 21 June 2018, p. Appendix K.

- **Costs associated with changing meters** - Making changes to maximum fares imposes costs on service providers. If a service provider changes their fares they must make changes to their signage and meter. Often vehicles cannot be used to provide services while these changes are being made: service providers cannot earn money if their vehicle is not on the road. If we decide to change fares we would also need to be satisfied that the expected benefits exceed these costs.

Assessment approach for maximum fares

We considered the following matters when deciding whether any proposed changes to the maximum fares were warranted. Changes to the current maximum fares should:

- have benefits that outweigh the associated costs[49]
- not make it more difficult, and preferably make it easier, for unbooked service providers to compete with each other or booked service providers[50]
- give incentives to unbooked service providers to provide the service outcomes consumers want[51]
- give a reasonable opportunity for unbooked service providers to recover the costs that a well-run business would need to run its service[52]
- result in a fare structure that passengers can easily understand.[53]

Our assessment approach helps us meet our legislated requirements

Considering market outcomes,[54] changes in the cost of providing CPV services,[55] and following our assessment approach, helps us meet our legislated obligations.[56]

By assessing market outcomes and costs we can make observations about the efficient use and provision of CPV services. These observations can also help us understand if price, quality and reliability outcomes are in the long term interests of consumers.

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[49] For example, the market outcomes we present in chapters three and four suggest that the costs associated with increasing maximum fares (primarily from reduced efficiency in the unbooked CPV market) would outweigh any associated benefits.

[50] For example, see the discussion under 'our decision' in chapter one.

[51] For example, see our analysis of service quality in appendices E and F.

[52] For example, see our analysis of the costs service providers must recover to be financially viable in chapter four.

[53] For example, we have proposed to give taxi service providers the choice of offering 'time **and** distance' tariffs: see chapter five.

[54] See chapters two and three and appendices E and F.

[55] See chapter four and appendix G.

[56] Essential Services Commission Act 2001, sections 8, 8A and 33; Commercial Passenger Vehicle Industry Act 2017, section 110C.

We also considered the various reforms that have taken place in the CPV industry,[57] increased competition among CPVs,[58] the financial viability of the industry,[59] the legislative obligations of the industry,[60] and maximum fares in other Australian jurisdictions.[61]

Dynamics of the CPV market

In setting the maximum fares for unbooked services, we have reviewed how recent regulatory changes will affect the CPV market.

Under the new regulatory regime, the cost of entering the market has decreased significantly. Previously, operators were required to rent a licence from a licence holder or the government at significant cost. A CPV can now be registered for an annual fee of $53.80.[62]

Booked CPV service providers are also able to set their own fares now. In many situations, booked services (especially 'ready to ride' bookings where passengers request an immediate pick up) will be a close substitute for unbooked services. It is therefore important that the maximum fares that we set for unbooked services do not constrain competition between booked and unbooked CPVs.

We also do not want to encourage service providers to actively avoid certain submarkets. For example, if fares for unbooked services are too low, the supply of unbooked CPVs may decline significantly because providing booked services would be more profitable for vehicle operators. Furthermore, as zones will no longer exist for licensing purposes, if there is an excessive imbalance in fares between the metropolitan and urban and large regional zones there is the potential for oversupply in one zone and undersupply in the other.

[57] See appendix D.

[58] See chapter one.

[59] See chapter one, four and appendix G.

[60] See appendix D.

[61] See appendix I.

[62] Commercial Passenger Vehicles Victoria, Fares and charges, accessed on 20 July, http://taxi.vic.gov.au/drivers/fees-and-charges.

Appendix D: Background on the CPV industry

This appendix provides context for our review of unbooked taxi fares, including a brief overview of the commercial passenger vehicle (CPV) market. We also recap the key changes that have been made to the regulatory framework governing the industry since our last fare review and outline some of the ongoing industry reforms and latest developments in the market.

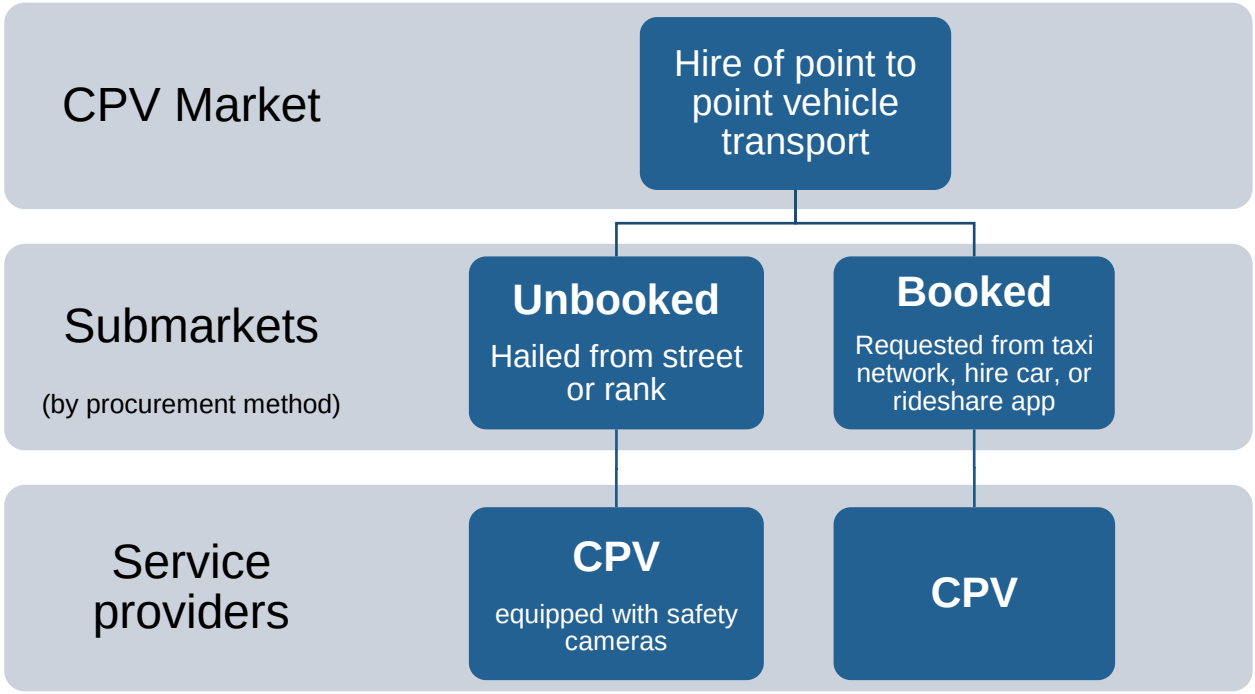
The CPV market

CPVs provide flexible motor vehicle transport services where passengers choose their points of departure and destinations. This is sometimes referred to as point–to–point vehicle transport. It differs from other commercial modes of transport which generally run on pre-specified routes with fixed timetables.

It is useful to divide the market for CPVs into two submarkets (figure D.1) depending on the way passengers obtain services:

- Booked: passengers reserve a vehicle prior to travel through an app, online or by phone
- Unbooked: passengers hail from a taxi rank or the street.

Figure D.1: Supply chain for CPV services

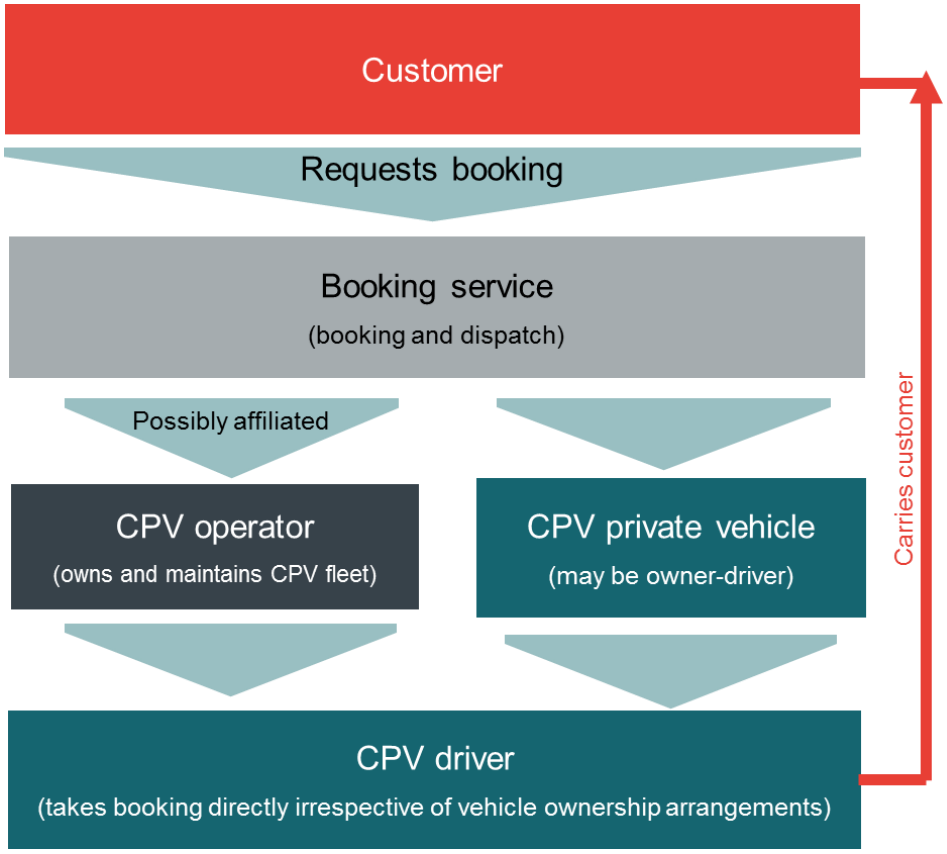


Booked services

CPVs that are used for booked services include hire cars, taxis, and rideshare vehicles.[63] Reservations are made using a booking service, and the transport service also relies on vehicle operators and drivers.

The main functions of these participants in the CPV supply chain are shown in figure D.2.

Figure D.2: Supply chain for booked CPV services



Note individual entities may assume multiple roles within the supply chain. For example, some operators drive their vehicles and some booking services operate vehicles.

Booking services have traditionally been provided by taxi booking networks using telephones (to take calls from passengers) and separate dispatch equipment installed in taxis (to dispatch the jobs to drivers). Suppliers of booking services have included:

- third-party taxi networks (not owned by taxi operators)
- co-operative taxi networks, which are owned jointly by taxi operators (these are more frequent in country areas).

[63] These are regulatory designations. The underlying vehicle types used to deliver the services may be very similar, or identical.

More recently, booking services have also been provided using smartphone applications (apps), and they may offer multiple services including hire car and ridesharing services as well as traditional taxi services. App providers in Victoria include:

- traditional taxi network apps, such as SilverTop and 13CABS
- new third-party taxi network apps, such as GoCatch, Ingogo and Oiii
- apps for booking rideshare services such as Didi, GoCatch, Ola, Taxify, and Uber.

Unbooked

Unbooked CPV services have historically been provided by taxis. These taxi services have had a wide range of regulatory requirements designed to maintain standards and quality, and to protect consumers and drivers from poor behaviour.

Unbooked services will continue to be provided by taxis. However the regulatory requirements for taxis have been reduced with new regulations mainly focussing on safety and consumer protection requirements (for example security cameras).[64]

Overview of recent changes to the regulatory framework

The CPV industry has undergone significant reform since our last review.

Between August and December 2017 the Victorian Government passed two acts of parliament reforming the CPV industry:

- the Commercial Passenger Vehicle Industry Act 2017 (CPV Industry Act)
- the Commercial Passenger Vehicle Industry Amendment (Further Reforms) Act 2017 (Further Reforms Act).

All provisions of these Acts are now in effect.[65] An overview of the reforms is provided in box D.1.

[64] Commercial Passenger Vehicle Industry Regulations 2018, section 9. Commercial Passenger Vehicles Victoria, A new industry, a new approach to regulation, accessed on 20 July 2018, http://taxi.vic.gov.au/about-us/a-new-industry.-a-new-approach-to-regulation.

[65] Victorian Government Gazette No. S 248, 29 May 2018, p.1, accessed on 20 July 2018, http://www.gazette.vic.gov.au/gazette/Gazettes2018/GG2018S248.pdf.

Box D.1: Reform overview

The Commercial Passenger Vehicle Industry Act 2017 passed by the Victorian Parliament on 10 August 2017:

- abolished licence fees for taxis and hire cars
- allowed for the regulation of rideshare providers in Victoria
- established the framework for a $1 per trip industry levy (the CPV service levy) which started on 1 July 2018.

The Commercial Passenger Vehicle Industry Amendment (Further Reforms) Act 2017 passed by the Victorian Parliament on 12 December 2017:

- removed the distinction between taxis and hire cars (including rideshare) vehicles, making them all CPVs
- introduced flexible fares for all booked CPV services along with stronger consumer protections
- regulated maximum fares for unbooked (rank and hail) CPV services in the metropolitan zone and the urban and large regional zone
- replaced complex licensing requirements with a simpler registration system
- made all industry participants responsible for passenger and driver safety
- gave the industry regulator extra enforcement powers to reflect its new broader focus.

Source: https://transport.vic.gov.au/ways-to-travel/taxis-hire-car-and-ridesharing/industry-reforms/

Reforms with particular relevance to our current review include:

- licensing changes that removed barriers to entry into the CPV industry
- application of a consistent accreditation framework for all CPV services
- deregulation of booked fares.

Each of these major reforms and their possible effect on the CPV market are discussed below.

Licensing changes have removed barriers to entry

Since the CPV Industry Act and Further Reforms Act came into effect, taxi or hire car licences are no longer required to legally operate a CPV in Victoria.

Historically the licence was the legal mechanism used to regulate fares, safety and service quality. Government also controlled supply in the CPV industry by only issuing new licences from time to time.

Licences were either perpetual (of no fixed term) or fixed term. Licences were also issued for a particular zone and type of service (conventional or wheelchair accessible). Most of the licences issued were perpetual and owners of licences were permitted to trade them for profit. Taxi licence owners were also able to lease their licences to taxi operators for a negotiated fee. In financial year 2017, lease fees paid for licences by metropolitan taxi operators averaged around $18,000 per year.[66]

Following reforms in the CPV Industry Act, in October 2017 CPV operators were given the option of obtaining low cost, annual single-class licences from Commercial Passenger Vehicles Victoria.[67] From 2 July 2018 these low cost licences were replaced with a vehicle registration system.

As a result of these reforms, there are no longer quantity or price based limits on vehicle supply. The number of licensed taxis has increased significantly since low cost licences became available.

- In the metropolitan zone (metro zone), the number of licensed taxis has increased by 94 per cent – from 4,625 in September 2017 immediately prior to the release of low cost licences reforms, to 8,970 in June 2018.
- In the urban zone, taxi licence numbers increased by 77 per cent over the same period – from 498 to 881.
- More than 37,104 hire car licences have been issued.[68]

This increase in supply has the potential to improve the ability of passengers to take point-to-point journeys that would otherwise not be made. It has also enabled new kinds of service models, such as rideshare services, to legally compete which increases the competitive pressure faced by existing taxi and hire car services.

A registration-based regulatory framework has been introduced for all CPV services

As noted, the historic **vehicle** licensing scheme applying to CPV services has been replaced by a vehicle registration scheme.[69] Licences have been automatically transitioned to registered vehicles from 2 July 2018.[70]

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[66] Taxi Services Commission, Annual Report 2016-17, October 2017, p. 25.

[67] Formerly the Taxi Services Commission.

[68] Commercial Passenger Vehicles Victoria, Taxi and hire car industry statistics, accessed 20 July 2018, http://taxi.vic.gov.au/about-us/industry-statistics.

[69] Commercial Passenger Vehicle Industry Act 2017, Part 3.

To register a vehicle the applicant must be the owner of the vehicle (or have the owner's permission to register the vehicle) and only one vehicle is permitted to operate per registration. There is no restriction on the number of vehicles that may be registered. A CPV can be registered for an annual fee of $53.80.[71]

All **drivers** of CPVs will continue to be required to be accredited to drive a vehicle to provide CPV services. The driver accreditation scheme aims to ensure that new and existing drivers are "competent", have passed relevant character checks, have a good driving history, are medically fit to conduct services and are "fit and proper" persons to carry out services.[72]

Booking services have also undergone a regulatory transition. All providers of booking services are required to be registered.[73] This registration replaces the previous accreditation system.

Booked fares will no longer be subject to fare regulation

Following the reforms in the CPV Industry Act, the regulatory framework now differentiates between booked and unbooked CPV services rather than between services based on the type of vehicle used (i.e. rideshare vehicle, taxi or hire car). Taxis were re-classified as CPVs that provide booked and unbooked services. Hire cars were re-classified as CPVs that provide booked services only. Any registered CPV and accredited driver can provide booked point-to-point transport services.

The fares for booked CPV services (including those provided by taxis) are no longer subject to maximum fare regulation. This provides service providers with flexibility around how they set the level and structure of fares.

The removal of fare regulation for booked services took effect on 2 July 2018.[74] The maximum fares we set under the Transport (Compliance and Miscellaneous) Act 1983 will continue to apply for unbooked CPV services until our price determination comes into effect in October.

It is now our role to regulate maximum fares for unbooked CPV services in the metro and urban zones (see box D.2). Unbooked CPV service providers are able to set fares at or below this regulated fare.

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[70] Commercial Passenger Vehicle Industry Act 2017, Schedule 3.

[71] Commercial Passenger Vehicles Victoria, Fares and charges, accessed on 20 July, http://taxi.vic.gov.au/drivers/fees-and-charges.

[72] Commercial Passenger Vehicle Industry Act 2017, Part 5.

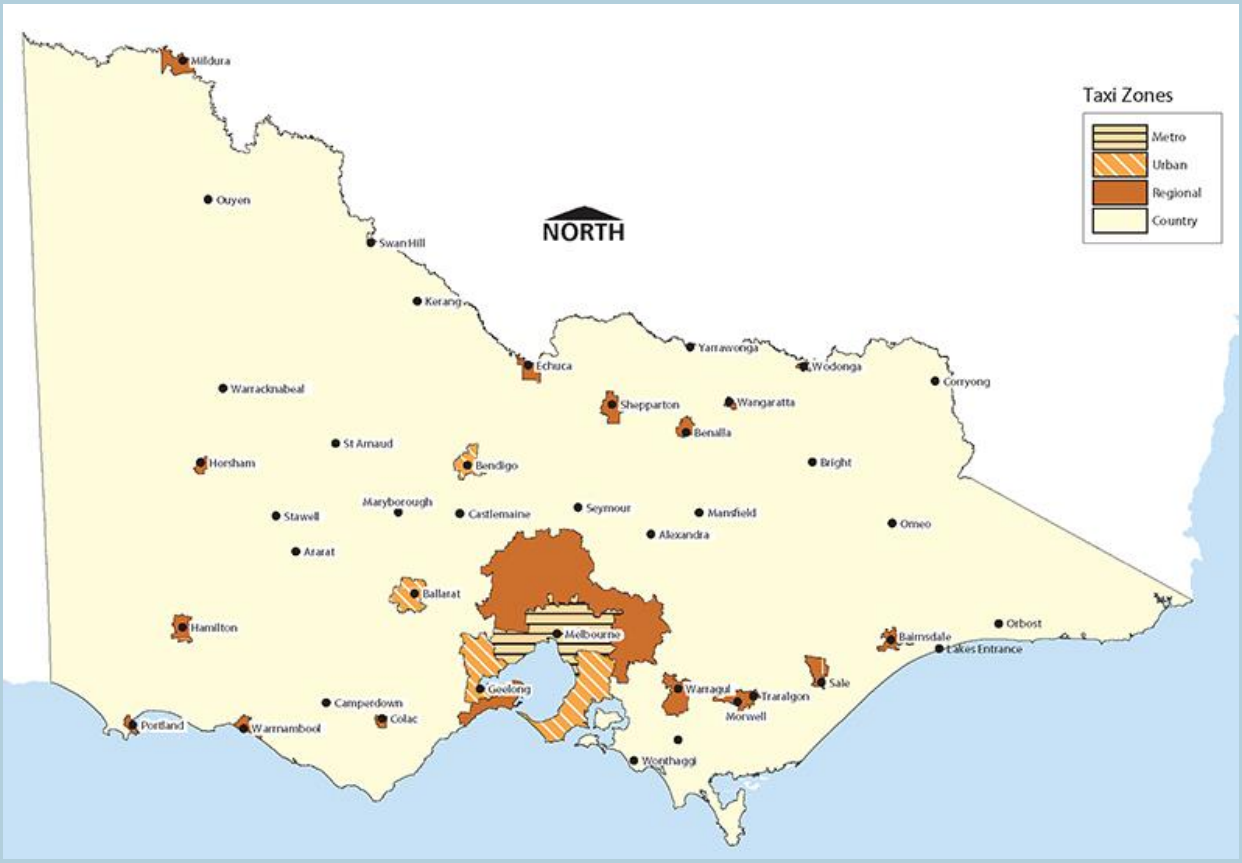
[73] Commercial Passenger Vehicle Industry Act 2017, Part 4.

[74] Victorian Government Gazette No. S 248, 29 May 2018, p.1, accessed on 20 July 2018, http://www.gazette.vic.gov.au/gazette/Gazettes2018/GG2018S248.pdf.

Box D.2: Function of taxi zones under new legislation

Historically, taxi-cab and hire car licences have been attached to zones in which the taxi or hire-car could operate. There were four taxi zones in Victoria: metropolitan (metro); urban and large regional (urban); regional; and country.

These zones are shown in the map below.



In the past, taxi-cab licences specified the zone the vehicle was to operate in.[75] This meant taxis could only undertake unbooked trips within their licensed zones. So, for example, taxis operating in the metro zone could take booked work to or from anywhere in Victoria, except journeys that started and ended in the urban zone. Similar restrictions applied to taxis licensed in other zones.[76]

Hire cars were historically licensed as metropolitan or non-metropolitan. However, as a result of the recent reforms, hire cars can now operate anywhere in Victoria.

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[75] Transport (Compliance and Miscellaneous) Act 1983 , s140(1A).

[76] Victorian Government Gazette, No. S 184 Thursday 12 June 2014, accessed 23 April 2018, http://www.gazette.vic.gov.au/gazette/Gazettes2014/GG2014S184.pdf.

Under the new legislative framework, a CPV will be able to operate in any zone. However, the metro and urban zones will continue to exist for the purpose of determining the journeys which will be subject to the maximum fare determination that applies for unbooked work.[77] Unbooked trips that begin in the metro or urban zone will be subject to the maximum fares for that zone.

Other fare-related changes

There have also been changes to fare monitoring and notification arrangements.

In regional and country areas, taxi service providers were required to notify the regulator, the Taxi Services Commission, of the fares they would charge for booked and unbooked work.[78] We had a monitoring function for fares in these areas, and annually reported on whether fares or fare changes might have reflected an exercise of market power.[79]

Under the new legislative framework, service providers in the regional and country zone are not required to notify their fares to Commercial Passenger Vehicles Victoria. Commercial Passenger Vehicles Victoria now monitors fares for all CPV services. The purpose of this role is to keep Victorian consumers and the Government informed about the economic performance of the CPV industry.[80]

Finally, we are now required to determine maximum surcharges for electronic payments for CPV services. Currently, these are capped at five per cent of the metered fare for taxis. Under the new legislation we must ensure that service providers can recover their reasonable costs of accepting and processing such transactions, where "reasonable cost" includes any fees payable for the acquisition of transactions involving the use of debit, credit or charge cards.[81]

Other reforms to the CPV market

There are a number of other important regulatory changes that have been recently implemented as part of the reform process. This includes:

- the CPV service levy
- the Commercial Passenger Vehicle Industry Regulations 2018.

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[77] Commercial Passenger Vehicle Industry Act 2017, section 110A.

[78] Transport (Compliance and Miscellaneous) Act 1983, section 162EA.

[79] Transport (Compliance and Miscellaneous) Act 1983, section 162ED.

[80] Commercial Passenger Vehicle Industry Act 2017, section 111.

[81] Commercial Passenger Vehicle Industry Act 2017, section 122.

CPV service levy

The CPV Industry Act introduced the CPV service levy and initially set the levy at $1 per trip to fund an industry transition package and partly fund the regulation of the CPV industry.[82] The levy will increase in accordance with the consumer price index from 2019.[83] [84]

The levy is payable by the booking service provider (for booked services), and for unbooked services by the trip provider and/or the booking service provider they are affiliated with.[85]

The collection of the CPV levy started on 1 July 2018. We updated the maximum fare determination in May 2018 to allow taxi service providers to choose whether they absorb the cost of the levy or pass it on to passengers by increasing their fares.

Commercial Passenger Vehicle Industry Regulations 2018

The new legislative framework includes provisions for new subordinate regulations to be made. The Governor in Council made the supporting Commercial Passenger Vehicle Industry Regulations 2018 (the Regulations) on 26 June 2018. The Regulations prescribe safety and other operational requirements for CPV services and the vehicles used to provide those services, and establish consumer protections for the users of those services.[86] The Regulations prescribe requirements relating to the following:

- acceptable ways of indicating a vehicle is being used to provide CPV services (identification of this is a requirement under the CPV Industry Act) [87]
- accredited drivers needing to ensure identification is clearly visible at all times[88]
- the provision of fare information and fare estimates or fixed fares to hirers by booking service providers upon request[89]

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[82] Commercial Passenger Vehicle Industry Act 2017, section 238.

[83] Commercial Passenger Vehicle Industry Act 2017, section 238(3).

[84] The commission also has a role to make recommendations about the amount of the levy to the Minister. The commission must not recommend the specification of an amount unless the commission is satisfied that it is the lowest amount that is reasonably likely to result in the total amount of the levy collected within 8 years of the commencement of the levy being equal to the money spent on transitional assistance.

[85] Commercial Passenger Vehicle Industry Act 2017, section 236.

[86] Commercial Passenger Vehicle Industry Regulations 2018, regulation 1.

[87] Commercial Passenger Vehicle Industry Regulations 2018, Part 3 – Division 1.

[88] Commercial Passenger Vehicle Industry Regulations 2018, Part 3 – Division 2.

[89] Commercial Passenger Vehicle Industry Regulations 2018, Part 5.

- complaints management and other operational requirements relating to smoking, assistance animal carriage, passenger assistance, record keeping (including in relation to trip records, fares, non-cash payment surcharges, and complaints).[90]

For CPVs providing unbooked services the Regulations also prescribe equipment requirements relating to security cameras, fare calculation devices (see further discussion below) and fare information displays. The new Regulations are less prescriptive than the previous regulations.[91] The Regulations focus on consumer protection and regulating the safety of CPV services rather than matters relating to service quality. For example, regulatory requirements relating to branding have been removed.

The Regulations may improve unbooked service providers' ability to compete with booked service providers by:

- imposing a consistent set of consumer protection provisions (relating to fare transparency, fare information and protections for vulnerable users) and some minimum safety-related requirements on all CPV providers
- removing highly prescriptive regulatory requirements relating to service quality and equipment requirements (see further discussion below) that were previously imposed on taxis that may have limited taxis' ability to compete with other CPV services.

New forms of competition are beginning to emerge

There has been an increase in new booking services entering CPV markets. This has been driven primarily by the prevalence of smartphones. Smartphones have enabled new software applications (apps) to emerge that match drivers and passengers in real time. As bookings with apps are not recorded and dispatched to vehicles manually (or through a mixture of manual and automated processes), these platforms have also reduced costs for booking service providers.

The regulatory reforms described above are intended to support competition in the market for commercial passenger vehicle services, including between these new booking services and existing ones, such as by making the regulations as similar as possible for all service models and pricing approaches.

The innovations that have enabled competition in booked services have also made these services better substitutes for unbooked services. This introduces some challenges and complexities when continuing to regulate maximum fares in only a segment of the market (unbooked services).

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[90] Commercial Passenger Vehicle Industry Regulations 2018, Parts 5, 6 and 9.

[91] Transport for Victoria, New regulations for commercial passenger vehicles, accessed 24 July 2018, available at: https://getinvolved.transport.vic.gov.au/regulations.

Overview of competition

Competing booking services

Booking services were traditionally provided by taxi networks (such as SilverTop and 13CABS). Hire cars also operated smaller networks. The advent of smartphones has rapidly changed the booking service provider landscape. Most people would now be familiar with ridesharing services such as the smartphone apps Didi, Ola, Taxify, and Uber. Competing smartphone booking service apps continue to enter the market with Didi entering the Melbourne market since we released our draft decision.

These booking apps need not be associated with the underlying providers of the transport services. They may merely act as intermediaries between transportation service providers (vehicles and drivers) and consumers.

These booking platforms are all subtly different, but tend to have standard features such as:

- enabling passengers to select their exact pick-up location
- providing passengers with estimated arrival times
- up front fare estimates and
- booked vehicles' real-time location (via GPS tracking).

New booking platforms also typically include some form of rating system for passengers and drivers. These reputational reporting mechanisms are intended to provide incentives for drivers to provide quality service and for passengers to behave courteously.

Booking service providers, including traditional taxi networks, third-party taxi apps and ridesharing apps compete for passengers and drivers on the basis of vehicle types, fares and how drivers are compensated. These arrangements are summarised in table D.1 below.

Table D.1: Typical offerings of different booking service providers

Characteristic of offering	Traditional taxi networks	Third-party taxi apps	Rideshare apps
Fares	Regulated maximum fares	Usually regulated maximum fares Some use of fixed fares	Fare schedule, with some different elements Some use of dynamic pricing Some use of fixed fares and minimum fares
Network compensation	Fixed fees charged to affiliated vehicles periodically	Between 15 to 25 per cent of the fare going to app networks	Between 15 to 25 per cent of the fare going to app networks
Driver compensation	Typically, as per the model mandated in the taxi driver agreement At least 55 per cent of the fare going to drivers and 45 per cent to vehicle operators	Between 75 to 85 per cent of the fare going to drivers/operators	Between 73 to 92 per cent of the fare going to drivers
Driver / operator relationship	Commonly, drivers engaged by taxi operators	Commonly, drivers engaged by taxi operators	Drivers are the operator
Vehicle types	Taxis from affiliated network	Typically enable access to only taxis, but may be from multiple networks	Provide access to a greater variety of CPV vehicles
Payment options	Cash, in-vehicle card	Generally cash, in-vehicle card or in-app payment	In-app payments only

Traditional taxi networks

As noted, taxi booking services were traditionally provided by taxi networks. These networks originally evolved from co-operative structures, where all operators jointly belonged to and jointly-owned the network. While co-operative structures remain the norm in non-metropolitan areas of Victoria, in metropolitan areas the larger networks are now corporate entities.

Prior to 2014, affiliation to a taxi network was mandatory for a taxi operator. Taxi operators did have some choice as to which network to affiliate. The agreement between the operator and network provided for the network to allocate booked work to the operator, and the operator paid a

fixed monthly fee (not contingent on the number of bookings received). The mandatory affiliation requirement was removed in 2014.

Within the traditional taxi network structure, the relationships between drivers and taxi operators have been governed by a driver agreement. This agreement provided for a split of the fare between the operator and driver, where the operator provided the vehicle and its running costs to the provision of the service. Mandatory conditions were implied into all driver agreements in 2014 which require a minimum split of 55 per cent of the fare accruing to the driver.[92]

Traditional taxi networks have faced considerable challenges in recent years due to increasing competition from new entrants. These networks have responded to competition and technological improvement by developing their own app-based booking platforms.

Taxi apps

Apps have been developed by third-party app developers, which operate across traditional taxi networks (this includes providers such as GoCatch,[93] Ingogo[94] and Oiii).[95] These apps enable passengers to book traditional taxis. New competitors, such as Oiii and Slykk, continue to emerge. The majority of taxi apps offer a fare structure in line with regulated, unbooked tariffs, although some apps have offered fixed upfront fares.[96]

Taxi apps connect directly with drivers rather than taxi operators. The share of the fare accruing to the booking service provider is taken as a percentage of the fare. Driver compensation arrangements may, however, continue to rely on the taxi sharing model mandated in the taxi driver agreement, with at least 55 per cent of the fare going to drivers.[97]

Non-taxi apps

Booking apps that enable access to hire car and rideshare services (in private vehicles) such as Uber, and the more recently launched Didi, Ola and Taxify, tend to have a more diverse approach to fare setting and driver compensation:

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[92] Commercial Passenger Vehicles Victoria, Driver Agreement, accessed 25 July 2018, http://taxi.vic.gov.au/__data/assets/pdf_file/0008/21869/Implied-Conditions.pdf.

[93] GoCatch, accessed 23 April 2018, https://www.gocatch.com/.

[94] Ingogo, Time to shake up the long-standing taxi monopoly in Australia, accessed 23 April 2018, https://www.ingogo.com.au/our-story/.

[95] Oiii, Oiii – Welcome, accessed 23 April 2018, https://oiii.com/.

[96] Taxi Link, Taxi Fare Estimator – Taxi Fare Calculator Melbourne – Taxilink, accessed 23 April 2018, https://taxilink.com.au/fare-estimator/.

[97] TSC, Implied Conditions, accessed 23 May 2018, http://taxi.vic.gov.au/__data/assets/pdf_file/0008/21869/Implied-Conditions.pdf.

- Base fares for these trips are calculated through the app, varying with trip 'time **and** distance' travelled (using a 'time **and** distance' tariff as discussed in chapter five). Some service providers vary their rates using surge pricing — this equates to an algorithm that increases the base rate during times of high demand and limited supply. This provides for dynamic pricing in response to supply and demand.
- These booking service apps take a commission from drivers in the form of a percentage of the fare. These commissions can vary depending on the driver and when they joined the network. At the present time, for new drivers, Ola takes a lower commission from drivers of 7.5 per cent, Taxify takes 15 per cent, and Uber takes 27 per cent.

Other competitors include GoCatch, which enables passengers to book either taxis or rideshare vehicles, Scooti[98] a scooter ride sharing booking app, and Shebah a female only driver and passenger rideshare booking service.[99]

In addition to introducing some degree of flexibility to fares for booked services, the increasingly wide variety of booking apps has had another notable impact. It has made bookings of taxis and hire cars, where the passenger requests an immediate pick up much easier. Also, with these services passengers are able to identify the wait time on any booking in advance of making it. As a result, booked services provide more certainty on waiting times, which make them an increasingly closer substitute for certain kinds of unbooked services.

More recently, the cost of ridesharing has fallen even further with the introduction of ridepooling in Melbourne.[100] Ridepooling allows users to share a ride with another passenger and split the cost of the trip. In the case of UberPool, passengers book their trip on Uber as normal, but if they select UberPool the platform will look to match closely located passengers travelling along a similar route (dynamic routing). Passengers are usually asked to walk a short distance to a pickup point along the route of the car they will board. This arrangement adds some time to the trip but reduces the cost for passengers. Uber has stated that UberPool now accounts for over 20 per cent of all its rides globally.[101]

Future market developments

Although there have been significant changes to CPV offerings in Victoria, examination of other jurisdictions indicates that further service evolution is likely.

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[98] Scooti, Scooti – Let's Ride!, accessed 23 April 2018, https://scooti.com.au/.

[99] Shebah, About - Shebah, accessed 23 April 2018, http://shebah.com.au/about/.

[100] Uber, UberPool launches in Melbourne, accessed 24 July 2018, https://www.uber.com/en-AU/newsroom/uberpoolmelbourne/ .

[101] Uber, Upfront fares: no math and no surprises, accessed 23 May 2018, https://newsroom.uber.com/canada/upfront-fares/.

Dynamic routing may hold particular promise for passengers wishing to depart from, or arrive at, a common location, such as after disembarking a train. More people wanting to depart from the same place at the same time, improves the efficiency of the routes drivers may take.

In some jurisdictions, such as Singapore, ridesharing competitors such as Uber and Grab have undertaken joint ventures with local taxi companies. These have allowed hirers to choose the nearest vehicle (taxi or rideshare) and so reduce wait times.[102] These platforms operate in conjunction with taxi and ridesharing apps, which can be used if passengers always prefer a taxi or ridesharing vehicle.

Challenges for new entrants and existing providers

Competition between booking service providers appears strong, with significant new entry. Booking services are competing for passengers on price, quality and the nature of their service offering. However, there are challenges that will need to be overcome by new and traditional booking service providers.

The value of a booking service increases to drivers and operators if there are more passengers connected to and using the service. Similarly, the value of a booking service to passengers increases when there are more drivers connected to and using the service. Larger networks of drivers or passengers are therefore more valuable and provide a significant competitive advantage. This is sometimes called “network effects”.[103]

In light of the network effects, the major challenge for any booking service provider is to secure a critical mass of both drivers and passengers using its platform.

For new entrants to the booking services market, success relies on establishing a critical mass of drivers and passengers, particularly as there are already market competitors with such mass. To attract more passengers to use their service, booking service providers must offer benefits to passengers such as: discounted rides, better service, or puppy cuddles.[104] To attract more drivers to use its service, the booking service provider must offer benefits to drivers such as a higher share of fares, financial bonuses for driving at certain times, or a more frequent or stable supply of fares.

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[102] Uber’s version is called UberFLASH and Grab’s version is called JustGrab. Uber and Grab announced plans to merge in March 2018.

[103] Booking service providers also operate in what are known in the economics literature as two-sided platform markets (or just two-sided markets). The key characteristic of these markets is that the value of the network to users on “one side” of the platform depends on the number of users on the “other side” of the platform. Credit cards and newspapers are two commonly-cited other examples of two-sided markets.

[104] Uber, It’s a pawsome day, #UberPUPPIES are in town, February 24, accessed 24 July 2018 https://www.uber.com/en-AU/blog/uberpuppies-au/.

Given these features of the market, it may be necessary for new entrants to offer fares and driver incentives that may not be sustainable in the long run, to rapidly increase their market share and secure critical mass.[105] Potentially, the market features might also suggest a limit on the number of competing booking services that can be sustained, although experience with traditional taxi networks suggests that at least two or three networks could be sustainable.

While we have described these market features in the context of new entry, traditional taxi networks are not immune to the same challenges. New entrants have increased the demand for drivers, and made it more difficult to attract drivers to their networks. This may particularly be evident at times of high passenger demand, as non-taxi apps can use dynamic pricing to increase driver returns. Traditional taxi networks have not had such flexibility in the past, but will now as fares for booked CPVs have been deregulated.

Challenges of a more open market for regulating fares

More potential for regulatory error

As booked services become a more viable substitute for unbooked services, we are conscious that regulation of maximum unbooked fares should not bias the decisions of passengers or drivers towards any particular operating model.

As we noted in our 2016 fare review, the environment in which we are setting maximum unbooked fares is very different from the past, and different to setting prices in monopoly industries:

> Up until the reforms that were implemented in 2014, in setting taxi fares, the Commission (and the Transport Minister prior to that) simply had regard to the level of costs in the industry and whether fare revenues were sufficient to cover those costs. It was possible to take this approach in the past because the taxi industry ran a largely exclusive service which faced little competition from alternative service providers. At the time, hire cars offered a niche service that only competed with taxis at the margin. The supply of vehicles was controlled tightly through regulatory restrictions on the number of licences; and the demand for taxi trips grew consistently with underlying economic parameters (such as population growth). In such circumstances, it was possible to estimate farebox revenue with a reasonable degree of confidence and adjust fares from time to time to ensure industry revenue kept pace with costs.[106]

[105] This can include, for example, offering drivers that sign up to the platform "early" the opportunity to retain a higher percentage of the fare. Drivers that sign up once the platform is better established receive a lower share.

[106] Essential Services Commission, Taxi Fare Review 2016 Draft Report Volume 2: Our Review, May 2016, p. 24.

The impact of recent reforms means that it is futile for us to seek to tightly control revenue and profits. This is accentuated by the similarity in service provision between booked and unbooked services, with the underlying transport service using identical inputs. Attempting to raise prices to recover higher costs runs a material risk of simply pushing demand away from unbooked services towards substitutable booked services (taxi, hire cars or rideshare). This could create a spiral of higher costs, higher prices and lower demand.

This means the way we determine fares for unbooked services must take into account a broader view of the market, and the ability of booked and unbooked CPVs to compete in that larger market. For example, we must recognise that differences in relative prices between (regulated) unbooked and (unregulated) booked fares will affect both consumer behaviour and driver behaviour. Estimating the costs of a typical operator of unbooked services is secondary to understanding how changes in fares might affect supply and demand at particular times.

Two areas where we have considered how distortions might arise include whether:

- unbooked maximum fares create a price "anchor" for booked fares or
- unbooked maximum fares constrain an unbooked service provider's ability to compete with booked services.

Regulated unbooked fares as an anchor price for booked fares

Taxi fare structures are more complex than those for many goods and services. Fares vary by time of day and week, and contain fixed and variable components. This complexity may make regulated fares for unbooked services act as an anchor, marker or binding constraint on prices for booked services, as the underlying transport service is very similar.

There are forces on both the supply side and demand side which favour such anchoring. On the supply side, service providers may anchor fares because these can be readily communicated to passengers (for example, "we charge regulated fares", or "x per cent less than regulated fares"). Passengers may also anchor their view of the acceptability of booked prices to the regulated fares.

Through these two mechanisms, there is the possibility that the regulated maximum fares for unbooked services may frame the upper bound of prices in the booked market, and thereby push prices above the competitive price.[107]

However, there are other forces which should act to prevent this:

[107] Certainly anchoring effects are well accepted in behavioural economics. This can occur through the anchor priming a passenger's view of the value of a booked service. See, for example, Daniel Kahneman, Thinking, Fast and Slow, Farrar, Straus and Giroux, 2011, chapter 11.

- the regulated price can be used as a basis for discounting, and so will be an informative anchor that is helpful to a passenger's choice
- other price anchors already exist in the booked market, which reduce reliance on regulated unbooked fares. For example, Uber's approach to implementing dynamic pricing – which involves setting lower base prices and then moving prices upwards from this base – may also act as an anchor for consumers and other apps.

Limitations on the ability of regulation to facilitate competition between booked and unbooked services

A second possible concern is that fares for unbooked services could constrain the ability of unbooked service providers to compete with booked services.

Providers of booked services will be able to use more complex pricing schemes that better enable these suppliers to match demand for their service with supply. This can occur both over time and by location. In contrast, a regulator cannot acquire (at least without great cost to the regulator, industry and therefore consumers) the information necessary to regulate fares in the same way. As a consequence, suppliers of CPV services may favour servicing booked fares because, for example, they allow higher fares at peak demand times or locations.

Potentially, these impacts may be somewhat lessened with new regulations or specifications potentially allowing for different kinds of fare metering devices. This could allow unbooked service providers to offer more complex tariffs, so long as these fit within the regulated maximum fares. However, there are obvious constraints on fare transparency and complexity for unbooked fares. These should not be so complex that passengers cannot readily understand how they are calculated.

Ultimately, we can at best mitigate this concern by seeking a balance between fare complexity and transparency, and the most efficient fare structures.

Appendix E: Metropolitan zone market outcomes

This appendix describes our analysis of market outcomes for taxis in the metropolitan zone (metro zone). By market outcomes we mean the levels of supply and demand prevailing in the market.[108] This information can be used to see if maximum fares need to change.

The data that we have on market outcomes for unbooked commercial passenger vehicles (CPVs) are for taxis. However, as we are not aware of any other widespread services in the unbooked market segment, it is reasonable to use taxi data to make conclusions about the unbooked market. We examined market outcomes using: occupancy rates, trip numbers, licensed vehicles, shift hours, active taxis, and waiting time for drivers and passengers. We also considered the trends in customer satisfaction and complaints in relation to the provision of taxi services.

The trends presented in this appendix draw on taxi trip and shift data we received from Commercial Passenger Vehicles Victoria covering the period from January 2013 to October 2017. For the metro zone we only have complete trip data until the end of 2016. While the data is of reasonable quality, we note that by now it is more than a year old. We are conscious that the balance of supply and demand may have changed in that time; especially given the large increase in licensed taxis over the last year.

The metrics presented in this chapter relate to either all taxis or unbooked taxis only. We present information on unbooked taxis where the relevant data could be isolated.

Recent trends in total taxi supply and demand

This section presents data on the recent trends in the supply and demand[109] for taxis.

Demand for unbooked taxis in the metro zone has declined significantly since 2014

Since fares were last changed in 2014, the demand for unbooked taxis has decreased significantly. Our analysis of trip data indicates that trip numbers have declined by as much as 17 per cent from 2014 to 2016 as shown in figure E.1. The share of unbooked trips has remained roughly 70 per cent of total trips since 2014.

[108] Specifically we measure market outcomes using the number of trips taken by passengers as a proxy for the demand for taxis and the number of licensed vehicles and shift hours worked by drivers as a proxy for the supply of taxis. We use occupancy rates (times at which a taxi has paying passenger) and waiting times for drivers and passengers as a measure of the balance between supply and demand.

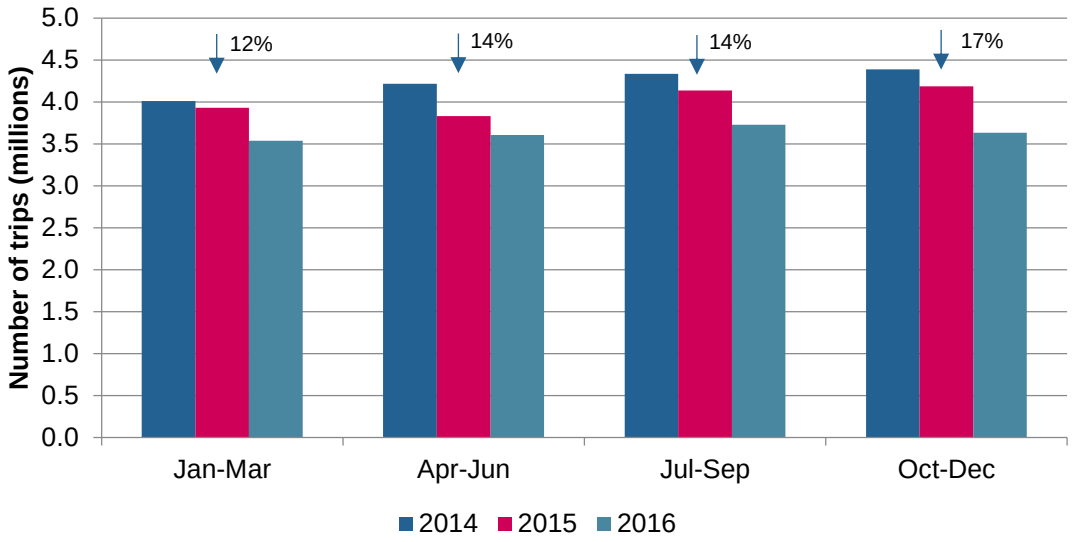
[109] As demand for taxi services is difficult to observe directly, we use the number of taxi trips as an indirect measure of taxi demand, while noting that trends in this data may also reflect changes in taxi supply.

We only have complete trip data up to 2016. Not all networks submitted their data for 2017 and we have no trip data from November 2017 onwards. This means that our analysis is based on data which is more than a year old and does not reflect the current demand for taxis. However, in meetings, most stakeholders have informed us that demand for taxis has continued to decrease; especially during peak periods.

In addition to this, trip data for July, August and December 2016 are not complete. As a result when we compare demand in the metro zone for 2014 and 2016 we have either:

- excluded those months from both the 2014 and 2016 data (when a metric compares averages like figure E.2) or
- estimated data (when a metric is at the level of total demand like figure E.1).

Figure E.1: Unbooked taxi trips in the metro zone: 2014 to 2016



Demand for taxis declined across the week but the pattern of demand is unchanged

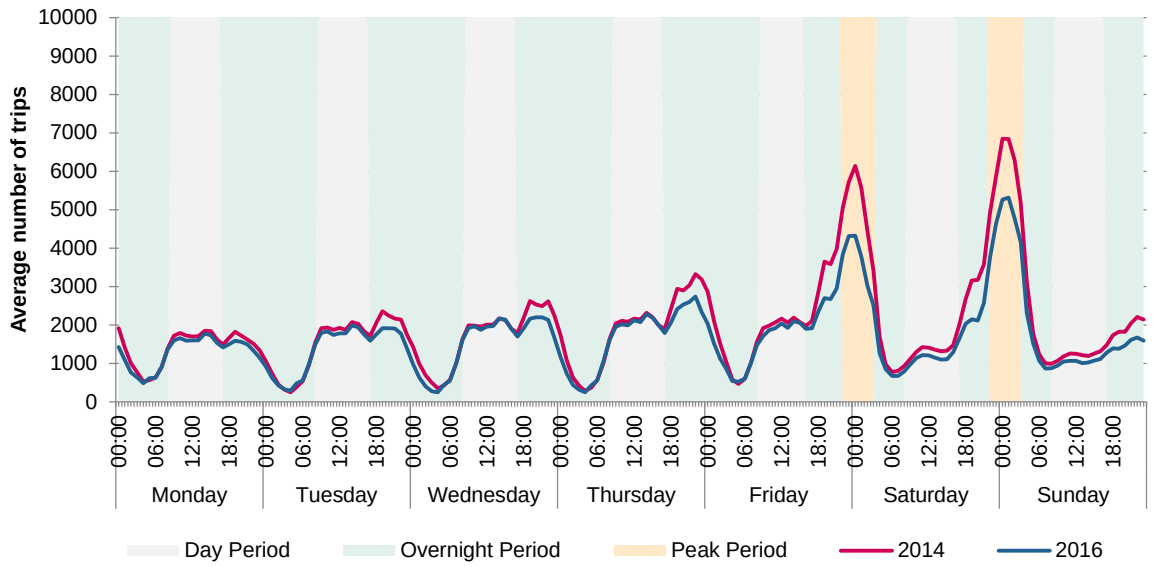
Figure E.2 shows the typical variation for taxi demand across the week. It shows the average number of trips taken for each hour of the week in 2014 and 2016. The background shading indicates the three tariff periods – day, overnight and peak – reflecting the times when different maximum fares apply (peak period fares are highest, followed by overnight, then day).

While the demand for taxis has declined significantly, the general trend of how demand varies across a typical week remained the same. Early in the week, demand is highest during business hours before increasing slightly in the early evening, followed by a period of low demand overnight from around 10pm. On Wednesday and Thursday evenings, the level of demand for taxis is generally similar to the level during business hours. From around 7pm to the early hours of the morning on Friday and Saturday nights, demand for taxis increases to its highest levels.

Figure E.2 also shows that the decline in demand for taxis from 2014 to 2016 has been most prominent on Friday and Saturday night peak periods.

Some stakeholders mentioned that the availability of 24 hour public transport services during the weekend has contributed to the drop in demand for taxis. However, as shown in figure E.2, the decrease in taxi trips has taken place across the entire week. 24 hour public transport services are only in operation early on Saturday and Sunday mornings.

Figure E.2: Average unbooked taxi trips by hour of the week in the metro zone: 2014 and 2016



Inner suburbs experienced the highest decline in demand for unbooked taxis

Except for trips to and from Melbourne Airport, all areas of the metro zone experienced declining demand for unbooked taxis. The inner suburbs experienced the largest decline in demand. Table E.1 shows the change.

Table E.1: Change in demand for unbooked taxis by location: 2014 and 2016

Area	CBD & surrounds	Inner suburbs	Melbourne Airport	Other Metropolitan
Trip trips from	-12.3%	-33.4%	16.1%	-19.0%
Taxi trips to	-13.1%	-24.5%	10.0%	-15.8%

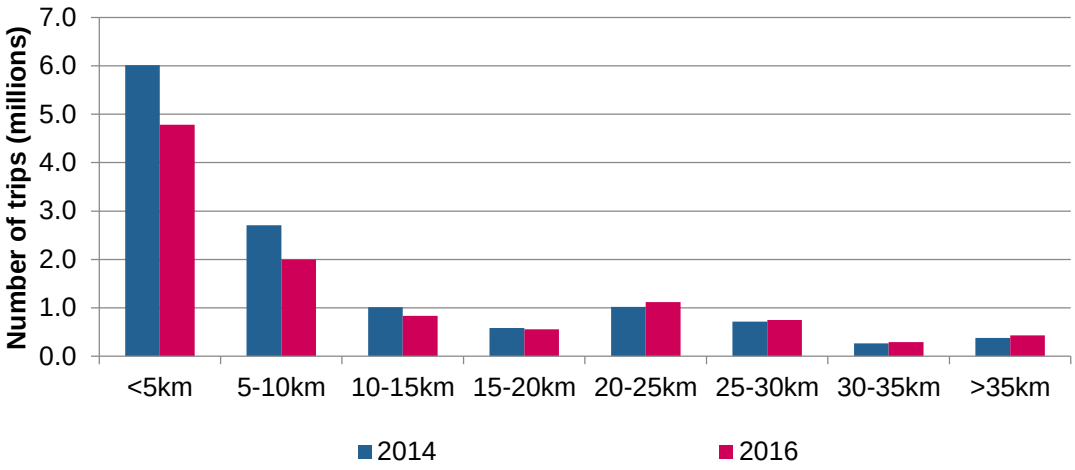
We note that trips **to** Melbourne Airport did not increase as much as trips **from** Melbourne Airport. This could be because it is harder to organise a rideshare trip **from** Melbourne Airport than **to** Melbourne Airport. To get a rideshare vehicle from Melbourne Airport passengers must walk past the Melbourne Airport taxi rank.

Demand for unbooked taxis declined for short trips but increased for long trips

Figure E.3 displays the number of trips by five kilometre distance bands, comparing demand in 2014 and 2016. The demand for unbooked taxis has decreased for distances less than 20 kilometres. Distances of less than 20 kilometres made up about 76 per cent of all total unbooked trips in 2016.

The influence of Melbourne Airport taxi demand can be seen, with a large number of trips between the airport and the CBD reflected around the 25 kilometre distance band.

Figure E.3: Unbooked taxi trip volumes by distance class in the metro zone: 2014 and 2016



The number of licensed taxis was stable until a large increase in October 2017

From 30 June 2014, new annually renewable taxi licences were made available for purchase from the Taxi Services Commission without quantity restrictions. For the metro zone, the fees for a conventional taxi licence were $22 703 per year and $18 988 for a Wheelchair Accessible Taxi (WAT) licence. These charges increased annually and were indexed at CPI minus 0.5 per cent. By July 2017 the cost of an annual licence was $23 017.[110]

In August 2017, the government introduced further licensing reforms. It enacted the Commercial Passenger Vehicle Industry Act 2017 to remove the high licensing costs associated with providing a CPV service.[111] Now, to operate a CPV an individual need only register their vehicle with

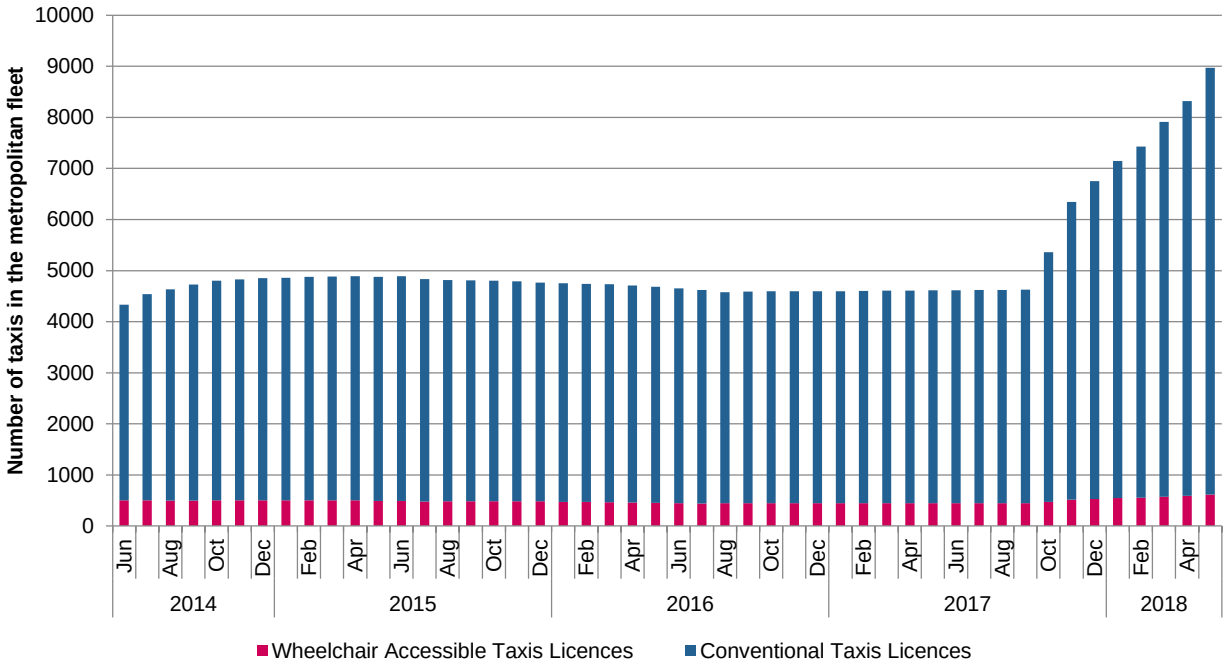
[110] Taxi Services Commission, Fees and Charges, accessed 20 April 2018, https://web.archive.org/web/20170709032453/http://taxi.vic.gov.au/owners-and-operators/fees-and-charges.

[111] Commercial Passenger Vehicle Industry Act 2017 s.1(b)(i) (prior to the amendments under the Commercial Passenger Vehicle Industry Amendment (Further Reforms) Act 2017).

Commercial Passenger Vehicles Victoria and pay the annual fee of $53.80.[112] Figure E.4 shows the change in the number of licensed taxis in the metropolitan zone.

The number of licensed taxis increased from 4,330 in June 2014 to 8,970 in April 2018 (a 107 per cent increase). However the number of taxis was fairly stable between April 2015 and September 2017. The significant increase in the number of licensed taxis started only later in 2017 when the cost of registration was reduced. Since our trip data is only complete up until the end of 2016, we do not know what effect this increase in taxis has had on the supply of active taxis and on the demand for taxis.

Figure E.4: Change in licensed metropolitan taxis: June 2014 to June 2018



Note: Licensed taxis may not be in service yet. There is often a gap between when a vehicle is licensed and when it enters active service. Due to the large demand for fitting the equipment required to operate as a taxi often operators must wait for several months until their vehicle is ready for service.

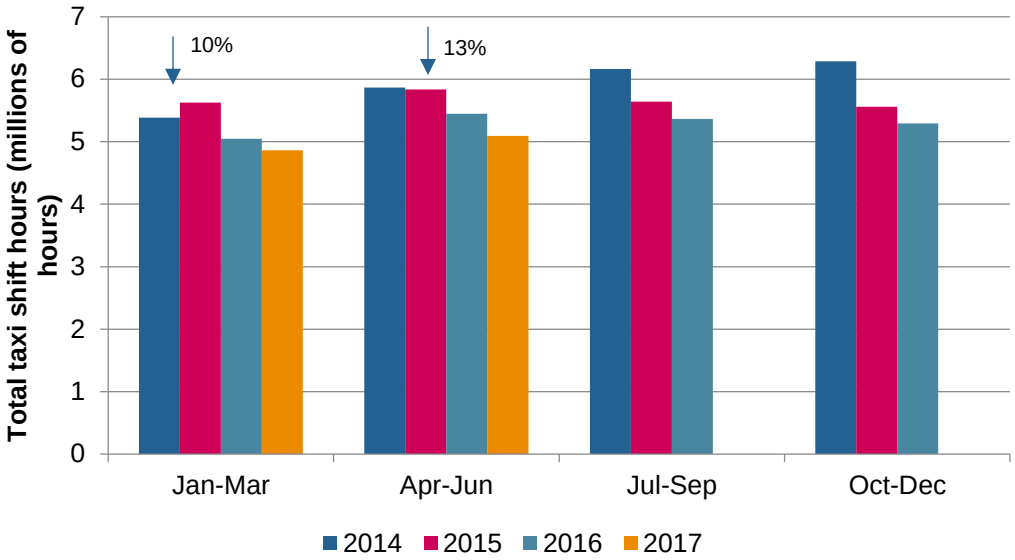
The total shift hours spent on the road by taxis began to decrease in 2015

Shift hours represent the time between the start and the end of each shift for taxi drivers. It includes both the time when a taxi is occupied with passengers and the time it is unoccupied but looking for passengers.

[112] Commercial Passenger Vehicles Victoria, Fares and charges, accessed on 20 July, http://taxi.vic.gov.au/drivers/fees-and-charges.

Starting in the second quarter of 2015, the total shift hours provided by all taxis began to decline. This trend continued into 2017. Figure E.5 shows that between 2014 and 2017 total taxi shift hours decreased by 10 and 13 per cent for the March and June quarters respectively.[113] However, this does not cover the period starting in late 2017 where the number of taxi licences almost doubled. We have some data which suggests the decline in shift hours continued into October 2017, but no data after that. Therefore it is difficult to say if this downward trend in total shift hours has continued.

Figure E.5: Total shift hours in the metro zone – all taxis: 2014 to 2017



The average number of taxis active at any one time has also declined

Figure E.6 shows the average number of taxis that were active during each hour of the week, for 2014 and 2016. Active taxis are all taxis that are on the road either occupied with a passenger or unoccupied but looking for passengers.

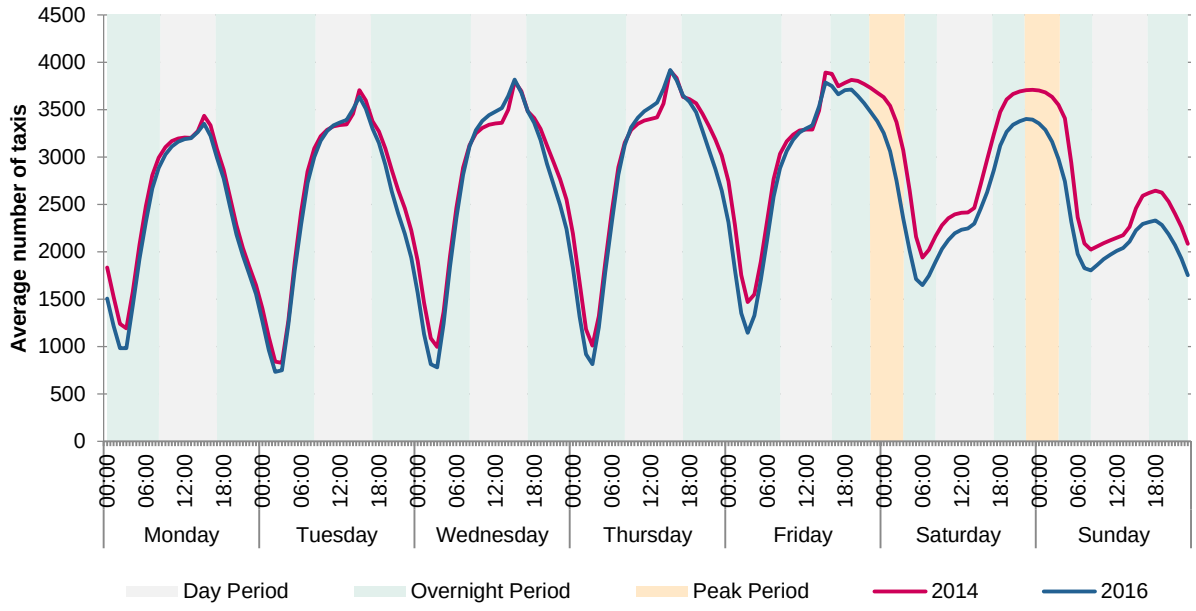
On weekdays, taxi supply was highest during business hours, and increased noticeably from 3pm when peak service taxis started their shifts.[114] In contrast to taxi demand across the week, the supply of taxis is not at its maximum on Friday and Saturday nights. It can be seen that on Friday nights the number of active taxis begins to decline prior to the commencement of the peak tariff period where taxi demand increases significantly.

[113] Although we only have complete trip data until the end of 2016, we have shift data for the first half of 2017. This shift comes from a different source: the TSC's Multi Purpose Taxi Program data. It covers all taxis because it is not possible to isolate separately the shift hours for unbooked taxis. All taxis can do both booked and unbooked work.

[114] Peak service taxis were licensed to operate only between 3pm and 7am. There were approximately 500 peak service taxis. Since the licensing regime was reformed these vehicles may now operate at any time.

While the overall pattern of active taxis has remained largely the same since 2014, the number of taxis on the road has decreased during the early evenings and weekends.

Figure E.6: Average active taxis by hour of the week in the metro zone – all taxis: 2014 and 2016



The balance of supply and demand

The balance of supply and demand can be shown using taxi occupancy rates. It can also be examined by looking at waiting times. These indicators for the balance of taxi supply and demand indicate that demand has decreased by more than supply in the metro zone.

Taxi occupancy

The occupancy rate is calculated as the total number of minutes that each taxi was occupied (passenger minutes) divided by the total number of minutes each taxi was on the road (shift minutes). It is a common measure of taxi utilisation.

Figure E.7 presents the average occupancy rate for each hour of the week in 2014 and 2016. It shows high levels of taxi utilisation on Friday and Saturday nights from early evening until around 4am. Relatively high utilisation is also observed on weekdays from 8am to 10am and 3pm to 5pm.

However, average taxi utilisation decreased from 29 per cent in 2014 to 27 per cent in 2016. That is, in 2016 taxis were occupied for a smaller percentage of the time than they were in 2014. This decreasing trend in occupancy holds for the majority of hours of the week, which is consistent with the larger decreases in demand relative to supply that we have observed.

Figure E.7: Average occupancy for each hour across the week in the metro zone – all taxis: 2014 and 2016

	2014						
	Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	28%	22%	22%	23%	28%	45%	52%
1am-2am	24%	19%	19%	19%	25%	41%	51%
2am-3am	21%	15%	18%	16%	23%	34%	47%
3am-4am	20%	13%	16%	15%	22%	33%	43%
4am-5am	18%	14%	14%	14%	18%	25%	33%
5am-6am	25%	21%	20%	19%	18%	22%	28%
6am-7am	29%	25%	24%	23%	21%	22%	28%
7am-8am	29%	27%	27%	26%	26%	23%	27%
8am-9am	36%	39%	39%	39%	36%	23%	24%
9am-10am	35%	38%	38%	39%	35%	24%	25%
10am-11am	30%	31%	31%	32%	31%	27%	26%
11am-12pm	26%	27%	28%	29%	31%	31%	29%
12pm-1pm	25%	27%	28%	30%	33%	32%	31%
1pm-2pm	24%	26%	27%	29%	30%	30%	30%
2pm-3pm	27%	29%	31%	32%	34%	28%	29%
3pm-4pm	30%	34%	36%	38%	39%	28%	28%
4pm-5pm	28%	33%	35%	38%	40%	28%	29%
5pm-6pm	26%	30%	31%	35%	38%	31%	28%
6pm-7pm	27%	31%	33%	35%	40%	38%	28%
7pm-8pm	26%	29%	31%	32%	40%	39%	25%
8pm-9pm	26%	27%	28%	29%	33%	32%	23%
9pm-10pm	26%	26%	27%	29%	33%	32%	26%
10pm-11pm	26%	26%	28%	31%	40%	42%	29%
11pm-12am	24%	23%	26%	30%	45%	50%	30%

	2016						
	Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	26%	22%	20%	21%	26%	35%	43%
1am-2am	22%	18%	17%	17%	23%	31%	43%
2am-3am	19%	16%	15%	15%	21%	28%	39%
3am-4am	19%	14%	13%	14%	21%	29%	39%
4am-5am	18%	15%	13%	14%	18%	23%	30%
5am-6am	25%	22%	21%	20%	19%	21%	26%
6am-7am	27%	24%	23%	22%	20%	21%	25%
7am-8am	27%	25%	26%	25%	25%	21%	24%
8am-9am	34%	36%	37%	37%	34%	22%	23%
9am-10am	35%	37%	38%	38%	33%	24%	25%
10am-11am	29%	31%	31%	32%	30%	27%	26%
11am-12pm	25%	26%	27%	28%	29%	29%	27%
12pm-1pm	24%	26%	27%	29%	31%	29%	28%
1pm-2pm	23%	25%	26%	28%	29%	27%	26%
2pm-3pm	26%	28%	30%	31%	32%	24%	25%
3pm-4pm	29%	32%	35%	38%	39%	24%	26%
4pm-5pm	27%	32%	36%	39%	39%	24%	27%
5pm-6pm	26%	30%	33%	36%	36%	26%	26%
6pm-7pm	26%	29%	31%	35%	35%	31%	26%
7pm-8pm	24%	26%	28%	29%	31%	28%	23%
8pm-9pm	26%	27%	28%	29%	26%	22%	23%
9pm-10pm	27%	28%	29%	30%	27%	23%	26%
10pm-11pm	25%	27%	28%	31%	32%	33%	27%
11pm-12am	23%	23%	23%	27%	37%	40%	26%

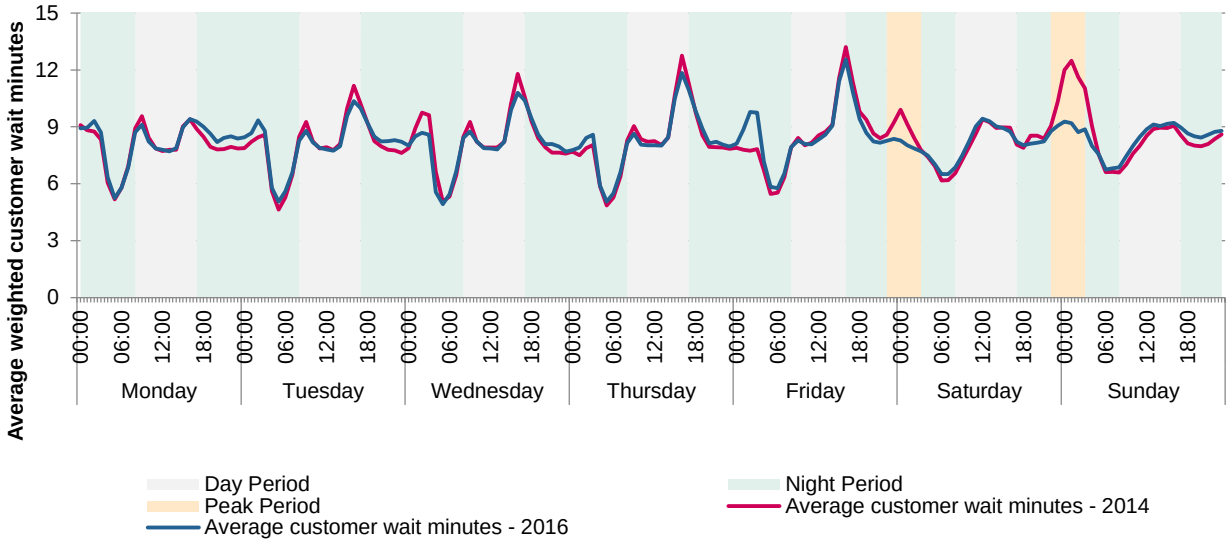
Our occupancy measures include both booked and unbooked taxi trips. It is not possible to calculate a separate occupancy rate for booked and unbooked taxis. Taxis do both booked and unbooked work. But unbooked taxi trips account for around 70 per cent of all taxi trips. As a result, these occupancy rates are a good estimate of occupancy rates for unbooked CPVs.

Passengers are waiting less

For another indication of the trends in the balance of supply and demand for CPVs, we analysed customer wait times for booked trips. Customer wait time is calculated as the difference between the time that a trip was booked for, and the time that the meter was turned on to begin the trip.[115] While this is not a direct measure, it provides an indication of changes in the balance of supply and demand for unbooked services. If customer wait times for booked trips are lower, it is likely that there is greater taxi availability and therefore that wait times for unbooked trips are also lower.

Average weighted customer wait times vary across the week, as shown in figure E.8, but tend to peak at around 5pm. Overall, customer wait times are shorter in 2016. Customer wait times during the Friday and Saturday night peak tariff periods are not at their highest. This is surprising given large peaks in taxi demand at those times are not matched by large peaks in supply. We suspect this is because if a booking is not accepted by a driver then there is no trip record for it.

Figure E.8: Customer wait time by hour of the week for the metro zone: 2014 and 2016[116]



[115] There are two types of trips that fit into this category: advanced bookings and ready to ride bookings. Advanced bookings are bookings where the requested time of departure is in the future. Ready to ride bookings are bookings that request the next available cab: the time the booking is made and requested for are the same.

[116] Customer wait time in this graph is the weighted average customer wait time. This means that the wait times for immediate pick up bookings have been given greater weight than advance bookings. This is to reflect the fact that wait times for rank and hail trips, for which there are no recorded wait times, are more similar to immediate pick up bookings.

Drivers are waiting longer between jobs

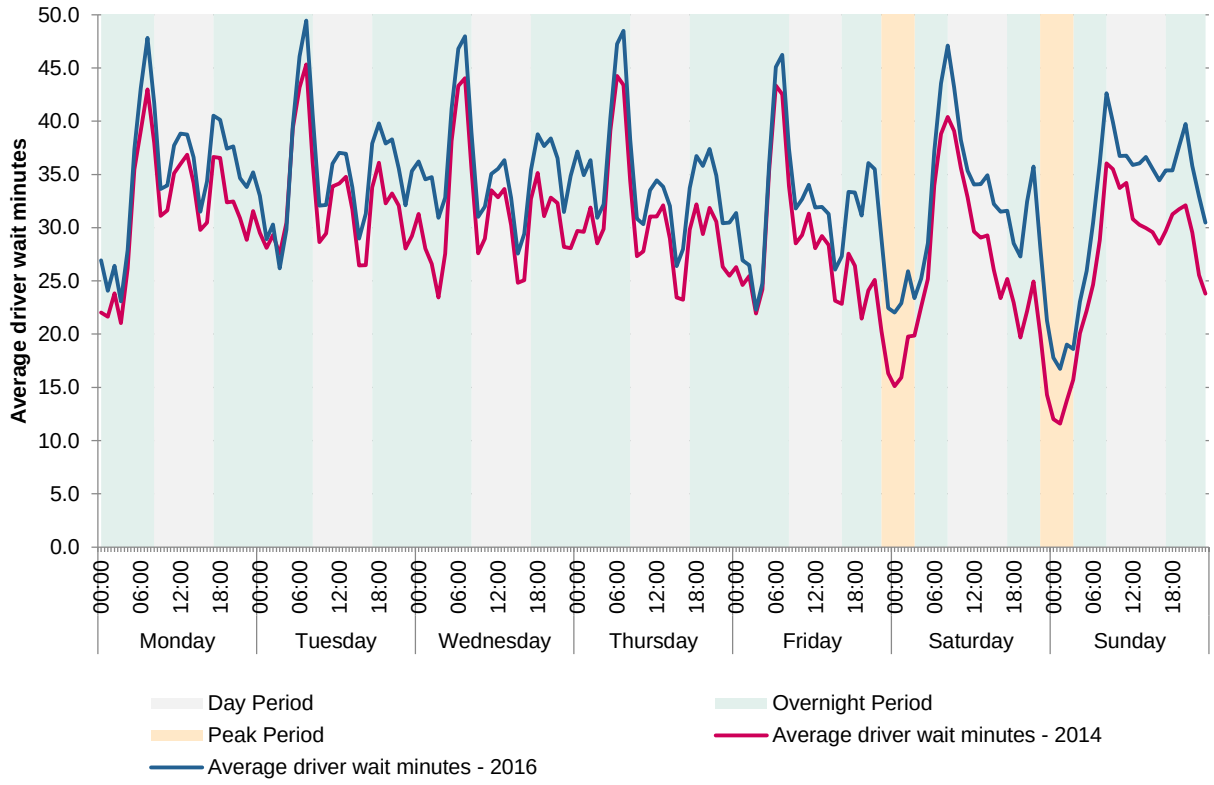
For an indication of how long drivers have to wait for a job, we have calculated the average time drivers spend between dropping off one passenger and picking up their next passenger (driver wait time). This measure counts the time in between trips regardless of whether the first trip was booked and the second trip was unbooked or vice versa.

Figure E.9 shows drivers' wait times between trips is highest in the morning between 6am and 8am. We suspect this result is influenced by drivers queuing at Melbourne Airport while waiting for the morning rush of air passenger arrivals into Melbourne.

Figure E.9 also shows the influence of high demand relative to supply on Friday and Saturday nights with drivers spending less than 15 minutes between trips on average on Saturday nights – roughly half the typical waiting time on weekdays during business hours.

We also observe that drivers waited longer between trips on average in 2016 than in 2014. This is consistent with the expected outcomes of lower demand for taxis discussed previously.

Figure E.9: Average driver wait time by hour of the week for the metro zone: 2014 and 2016



Taxi service quality

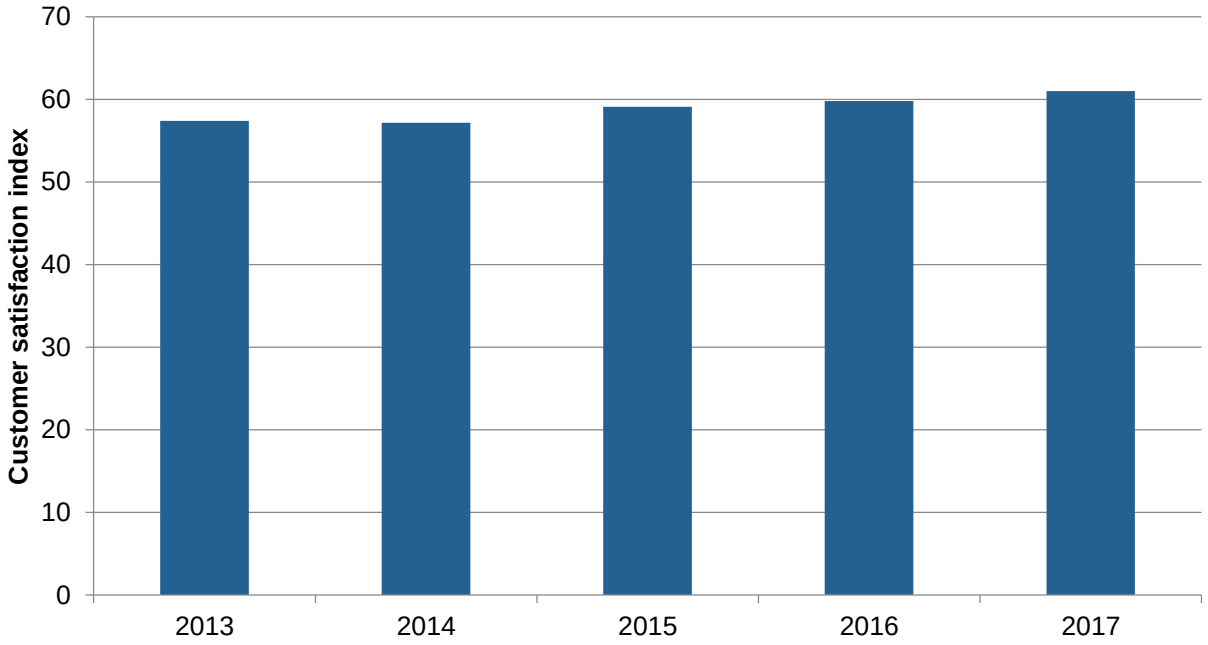
Measuring taxi service quality can provide information about problems with the level of fares or the structure of fares.

We used three measures to examine taxi service quality:

- a customer satisfaction index (calculated from Commercial Passenger Vehicles Victoria's Customer Satisfaction Monitor results)
- the total number of complaints about taxis lodged with Commercial Passenger Vehicles Victoria[117]
- customer wait times (calculated based on the Commercial Passenger Vehicle's trip data).

Our analysis suggests that the quality of taxi services in the metro zone has improved. This can be seen in improved customer satisfaction (figure E.10)[118], fewer complaints (figure E.11) and generally improved customer wait times (figure E.8).

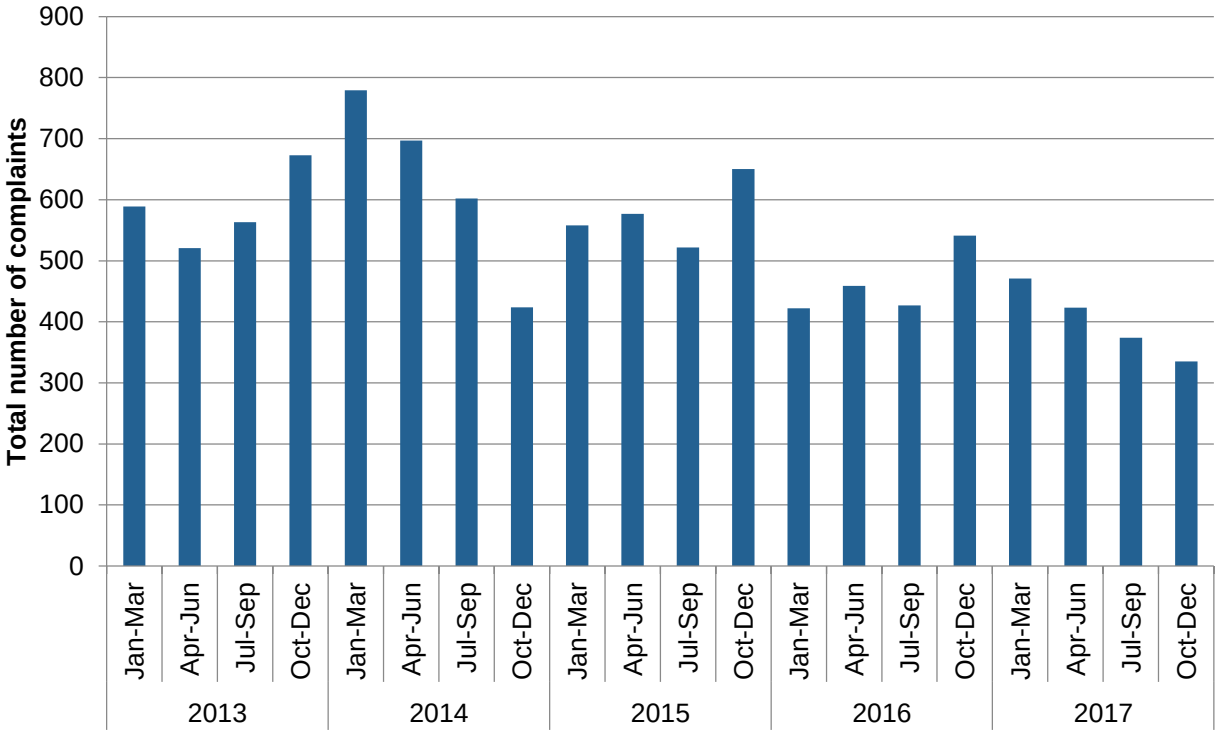
Figure E.10: Customer satisfaction index by quarter – all taxis: 2013 to 2017



[117] Customers can lodge taxi related complaints with Commercial Passenger Vehicles Victoria, typically on matters concerning driver behaviour, fare refusals and cleanliness of the vehicle.

[118] According to Commercial Passenger Vehicles Victoria, driver performance, safety and comfort, and fare mostly determine overall customer satisfaction with taxi services. Source: Taxi Services Commission, 2016-17 Annual Report, October 2017, p.30.

Figure E.11: Total number of complaints in the metro zone – all taxis: 2013 to 2017



Improved quality of taxi services from 2014 to 2017 suggests that the current maximum fares are not leading to a decrease in the quality of taxi services.

Appendix F: Urban and large regional zone market outcomes

This appendix describes our analysis of market outcomes for unbooked taxis in the urban and large regional zone. The urban and large regional zone (the urban zone) includes Geelong, Ballarat, Bendigo, Frankston, Dandenong and the Mornington Peninsula. We refer to the Frankston, Dandenong and Mornington Peninsula areas as the east urban area in this report.

In general we have examined market outcomes using the same metrics that we used for the metropolitan zone (metro zone).

The amount of data available to us for the urban zone is mixed and less complete than the data we have for the metro zone. We have enough data to observe trends in Geelong but not for Ballarat and Bendigo. The data that we have for the east urban area allows us to compare trends in average outcomes, such as customer wait times or occupancy rates, but there are some issues with the inclusion or exclusion of some parts of the area that make comparisons of the total level of demand or supply difficult.

Overall, following careful cleansing of the data to remove invalid records, the data we have for Geelong is of reasonable quality. However, it is difficult to draw strong conclusions for other areas. While the data for Geelong is of reasonable quality, we note that by now it is more than a year old. We are conscious that the balance of supply and demand may have changed since that time; particularly given the large number of new taxi registrations since September 2017.

As for the metro zone the metrics presented relate to either all taxis or unbooked taxis only. We present information on unbooked taxis where the relevant data could be isolated.

Recent trends in total taxi supply and demand

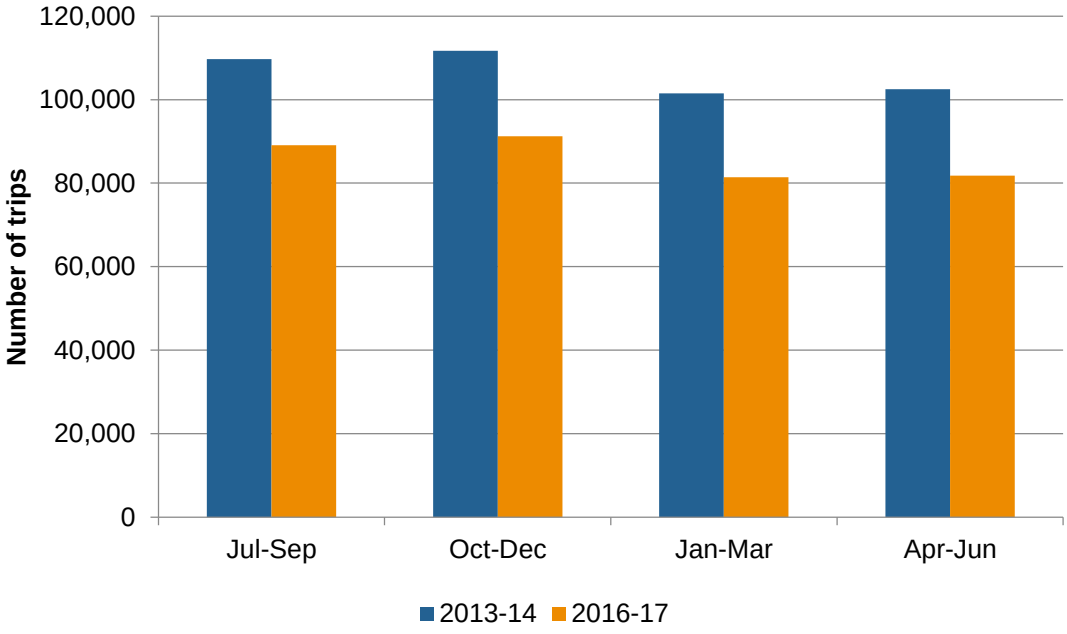
This section presents data on the recent trends in total taxi supply and demand.

Demand for unbooked taxis in Geelong has declined since 2014

Demand for unbooked trips in Geelong declined by roughly 20 per cent between 2013-14 and 2016-17. Figure F.1 shows this trend. Over this period, the share of unbooked trips in Geelong has remained stable at roughly 35 per cent of total trips.

We do not have complete data for the east urban area, Ballarat and Bendigo to compare the trends in demand for taxis.

Figure F.1: Taxi trips for unbooked taxis in Geelong: 2013-14 and 2016-17



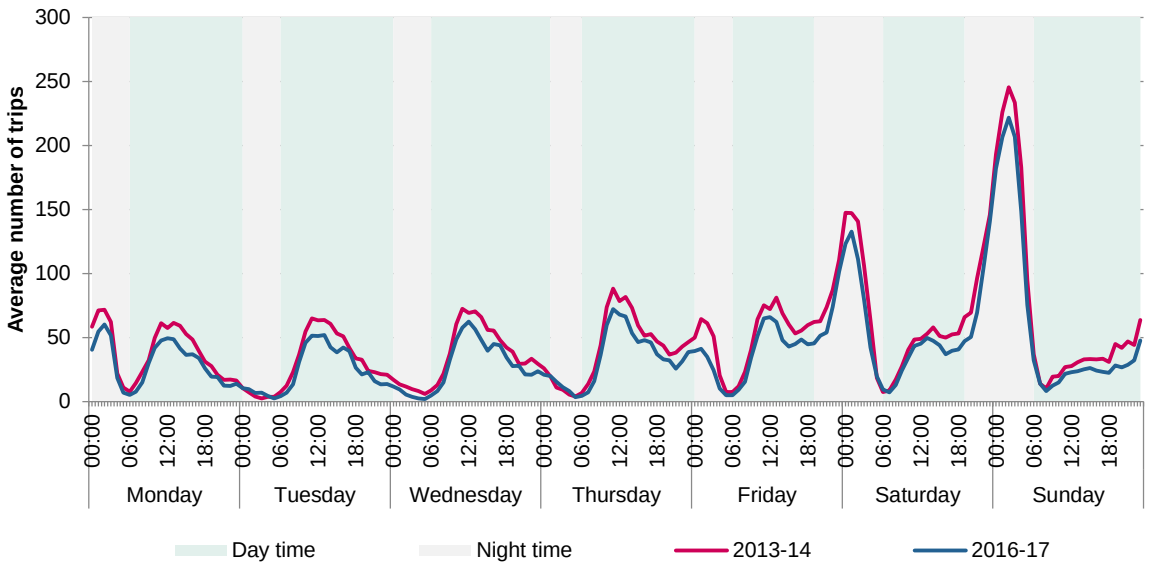
Demand for taxis declined for most hours of the week and the pattern of demand remained the same

Figure F.2 shows the typical variations in demand for taxis in Geelong across the week. The background shading indicates the two tariff periods – the day period and the night period.[119] The decline in demand for unbooked taxis in Geelong from 2013-14 to 2016-17 was quite evenly spread across the week.

While demand for taxis has declined, the general trend of how demand varies across a typical week remained largely the same. On weekdays, taxi demand is highest during business hours before declining in the evening, followed by a period of low demand overnight. Demand for taxis increases to its highest level on Saturday night from midnight to 1am. As the pattern of demand is largely unchanged it seems that the current fare structure, which determines how fares vary across the week, is still appropriate.

[119] A late night fee applies for trips commencing between 7pm on Friday and Saturday nights through to 6am the following morning; and from midnight to 6am on all other days.

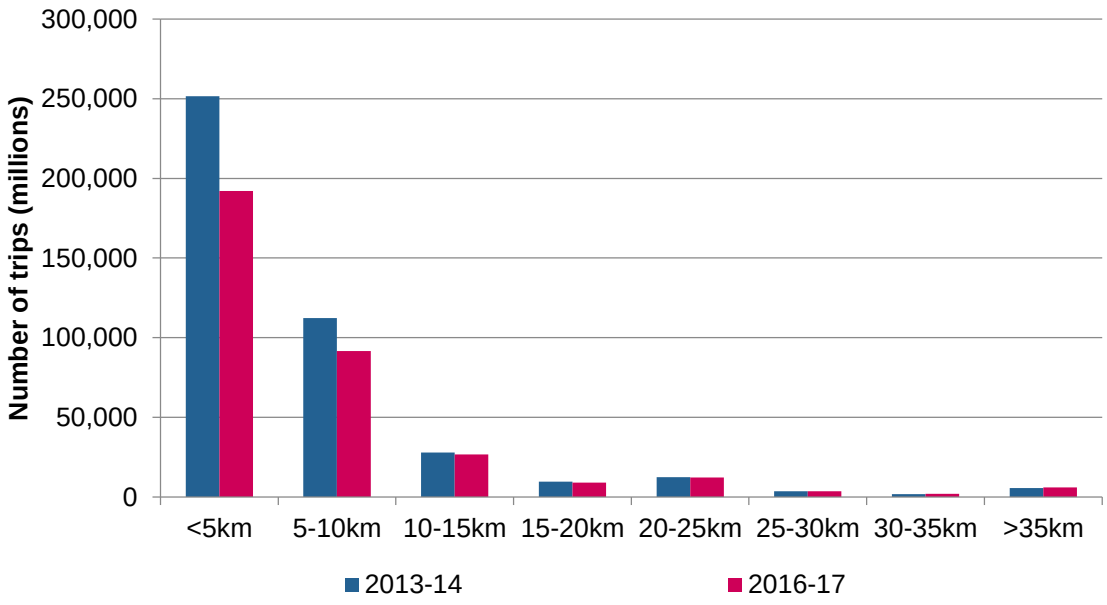
Figure F.2: Average unbooked taxi trips by hour of the week for Geelong: 2013-14 and 2016-17



Demand for unbooked taxis declined for short trips

The demand for unbooked taxis has decreased for distances less than 30 kilometres but increased for longer trips. Distances of less than 30 kilometres comprise about 98 per cent of all unbooked trips in Geelong in 2016-17. Figure F.3 displays the number of trips by five kilometre distance bands, comparing demand in 2013-14 and 2016-17.

Figure F.3: Unbooked taxi trips in Geelong by distance: 2013-14 and 2016-17

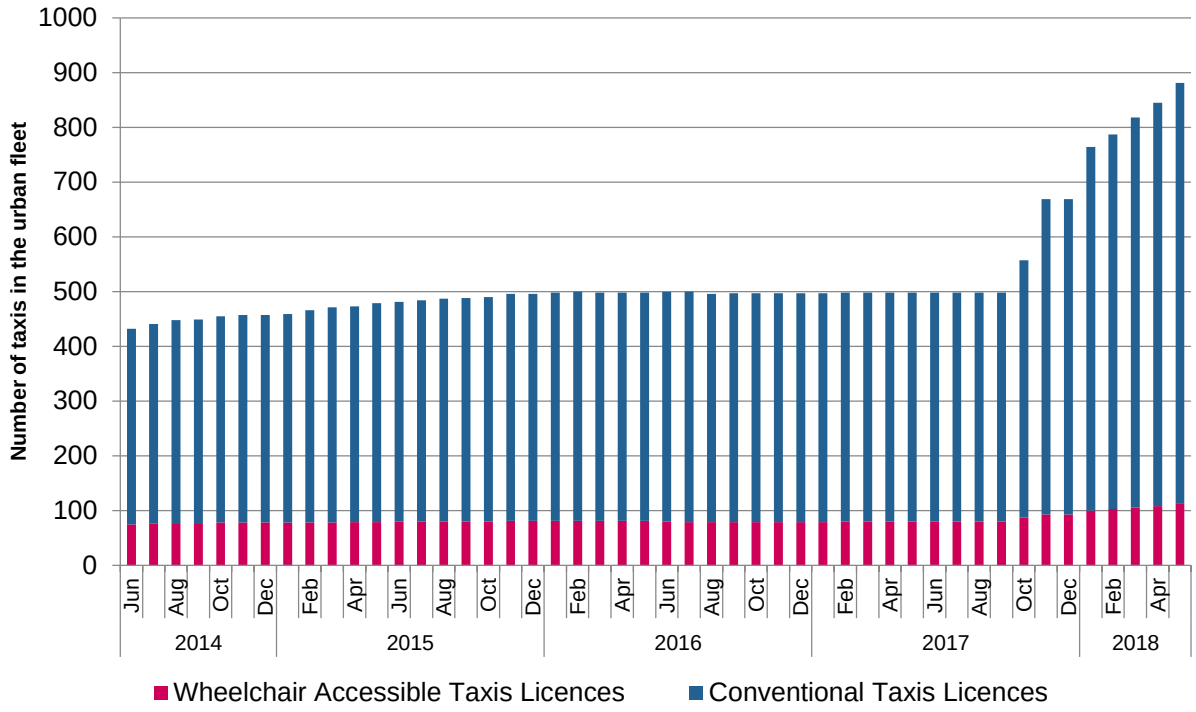


The number of licensed taxis was stable until a large increase in October 2017

As discussed in appendix E, in June 2014 and August 2017, the government introduced reforms that effectively removed all quantity and price restrictions on CPV licences. Figure F.4 shows the resulting change in taxis licensed in the urban and large regional zone from June 2014 to June 2018.

The number of licensed taxis increased from 498 in September 2017 to 881 in June 2018 (a 77 per cent increase). However the number of licensed taxis was fairly stable between December 2015 and September 2017. The significant increase in taxis started only later in 2017 when the cost of entry was reduced significantly.

Figure F.4: Change in licensed urban and large regional zone taxis 2014 to 2018



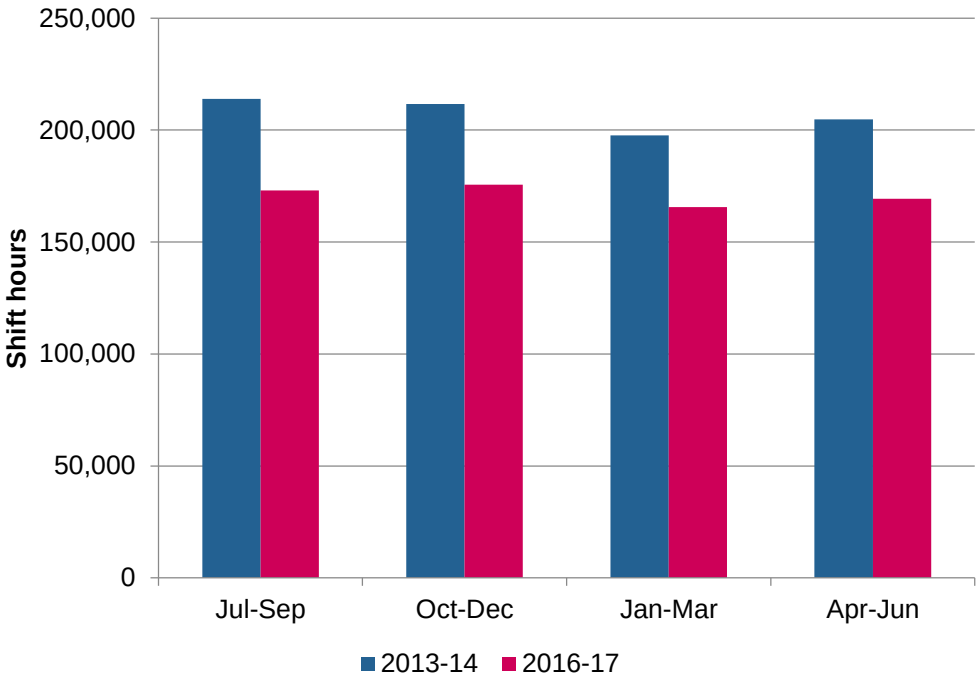
Note: Licensed taxis may not be in service yet. There is often a gap between when a vehicle is licensed and when it enters active service. Due to the large demand for fitting the equipment required to operate as a taxi often operators must wait for several months until their vehicle is ready for service.

The total shift hours spent by taxis on the road has declined since 2014

Figure F.5 shows the total shift hours spent by taxis on the road providing trips or looking for passengers for 2013-14 and 2016-17 in Geelong. This does not cover the period starting in late 2017 where taxi licences almost doubled hence we cannot be sure what effect this increase in licence numbers has had on the shift hours worked by taxis and demand for taxis from July 2017.

The total taxi shift hours decreased by 17 per cent from 2013-14 to 2016-17. We do not have the data to make a similar comparison for the east urban area, Ballarat or Bendigo.

Figure F.5: Total shift hours for Geelong – all taxis: 2013-14 and 2016-17

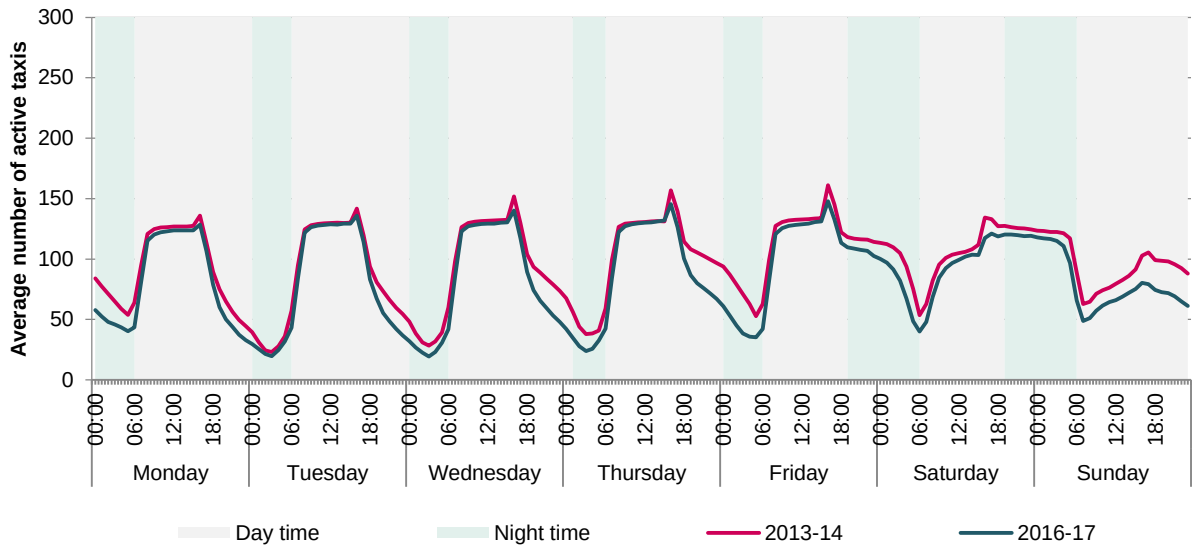


The average number of taxis active at night has also declined

Figure F.6 shows the average number of taxis that were active during each hour of the week, for 2013-14 and 2016-17. Taxi supply is highest during business hours, and increases noticeably at 4pm. In contrast to taxi demand across the week, the supply of taxis is not at its maximum on Friday and Saturday nights.

While the pattern of supply of active taxis remained largely the same between 2013-14 and 2016-17, on average, the level of supply of active taxis on the road decreased. The decrease in supply is most prominent during the early evenings and weekends.

Figure F.6: Average active taxis (supply) by hour of the week in Geelong – all taxis: 2013-14 and 2016-17



The balance of supply and demand

Overall the balance of supply and demand has not changed

On average, taxi utilisation in Geelong increased from 22 per cent in 2014 to 24 per cent in 2017. However, the occupancy rates on Friday and Saturday nights have decreased (see figure F.7). This suggests that demand decreased relative to supply during this period. It also suggests that there is no shortage of taxis at what is generally the busiest time of the week in Geelong.

In the east urban area, occupancy rates decreased from 27 per cent in 2014 to 23 per cent in 2017 (see figure F.8). The decrease in occupancy rates is most significant during business hours and during Friday and Saturday nights, but occupancy rates dropped for almost all hours of the week.

We do not have complete data for Ballarat and Bendigo to make similar comparisons. However, the data available to us shows that in 2017, the pattern of the occupancy rates in Ballarat was generally similar to those of Geelong.

Overall the way occupancy rates vary across the week in Geelong and the east urban area has not changed since 2014. High levels of taxi utilisation were observed on weekdays during business hours and Friday and Saturday nights. Data available for Ballarat shows it has generally the same pattern of occupancy rates. Network service providers in Bendigo indicated that the pattern of their occupancy rates is similar to those in Ballarat. As the overall balance of supply and demand has not greatly changed since 2014, the tariff schedule (which determines how fares vary across the week) still seems to be appropriate.

Figure F.7: Average occupancy rate for each hour across the week in Geelong – all taxis: 2013-14 and 2016-17

2013-14							
	Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	16%	11%	11%	12%	13%	32%	49%
1am-2am	18%	10%	11%	11%	15%	30%	48%
2am-3am	21%	7%	8%	8%	16%	27%	47%
3am-4am	24%	6%	8%	8%	16%	24%	45%
4am-5am	15%	11%	12%	9%	13%	20%	37%
5am-6am	16%	14%	14%	11%	12%	16%	26%
6am-7am	13%	13%	13%	12%	11%	14%	22%
7am-8am	12%	13%	13%	13%	12%	13%	16%
8am-9am	33%	34%	34%	35%	33%	15%	15%
9am-10am	29%	30%	31%	34%	31%	17%	21%
10am-11am	22%	23%	25%	28%	25%	21%	20%
11am-12pm	23%	23%	24%	27%	27%	24%	22%
12pm-1pm	20%	23%	23%	25%	25%	24%	21%
1pm-2pm	21%	23%	23%	27%	26%	24%	19%
2pm-3pm	27%	28%	31%	32%	32%	23%	20%
3pm-4pm	40%	44%	45%	47%	47%	21%	18%
4pm-5pm	24%	28%	29%	32%	34%	23%	19%
5pm-6pm	19%	19%	21%	23%	25%	22%	16%
6pm-7pm	16%	18%	18%	17%	26%	28%	15%
7pm-8pm	15%	17%	17%	16%	25%	30%	15%
8pm-9pm	14%	13%	13%	13%	21%	25%	15%
9pm-10pm	14%	15%	15%	14%	24%	29%	17%
10pm-11pm	14%	14%	15%	15%	25%	35%	16%
11pm-12am	12%	12%	12%	14%	29%	44%	19%

2016-17							
	Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	18%	16%	15%	18%	18%	33%	47%
1am-2am	21%	13%	15%	17%	18%	33%	47%
2am-3am	25%	10%	11%	15%	17%	28%	46%
3am-4am	28%	9%	9%	14%	17%	26%	44%
4am-5am	21%	17%	17%	19%	17%	23%	36%
5am-6am	20%	16%	16%	15%	16%	22%	28%
6am-7am	18%	15%	18%	18%	18%	20%	24%
7am-8am	18%	16%	18%	18%	18%	16%	20%
8am-9am	38%	39%	41%	39%	38%	16%	18%
9am-10am	32%	32%	32%	35%	33%	21%	25%
10am-11am	23%	26%	27%	28%	28%	24%	25%
11am-12pm	23%	25%	27%	28%	29%	27%	27%
12pm-1pm	23%	25%	26%	28%	28%	27%	27%
1pm-2pm	23%	26%	27%	28%	29%	26%	23%
2pm-3pm	28%	30%	32%	32%	34%	24%	21%
3pm-4pm	46%	45%	46%	46%	45%	23%	22%
4pm-5pm	27%	31%	30%	34%	33%	23%	23%
5pm-6pm	24%	24%	27%	28%	29%	22%	21%
6pm-7pm	21%	22%	22%	22%	26%	26%	19%
7pm-8pm	19%	18%	20%	19%	22%	25%	18%
8pm-9pm	19%	20%	20%	19%	19%	21%	17%
9pm-10pm	18%	18%	19%	16%	19%	23%	17%
10pm-11pm	15%	16%	17%	18%	23%	30%	17%
11pm-12am	16%	15%	17%	18%	28%	40%	22%

Figure F.8: Average occupancy rate for each hour across the week in the east urban area – all taxis: January-October, 2014 and 2017

2014							
	Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	22%	21%	20%	18%	20%	30%	43%
1am-2am	20%	19%	21%	20%	22%	29%	46%
2am-3am	19%	18%	20%	21%	25%	27%	46%
3am-4am	14%	12%	14%	17%	20%	25%	40%
4am-5am	14%	14%	15%	15%	16%	22%	24%
5am-6am	21%	20%	20%	20%	19%	19%	22%
6am-7am	24%	23%	22%	23%	23%	19%	23%
7am-8am	24%	26%	26%	27%	25%	15%	16%
8am-9am	39%	43%	41%	43%	39%	17%	16%
9am-10am	38%	40%	38%	41%	37%	21%	20%
10am-11am	33%	36%	36%	39%	35%	26%	23%
11am-12pm	32%	34%	34%	38%	37%	30%	23%
12pm-1pm	32%	34%	36%	38%	39%	30%	24%
1pm-2pm	32%	34%	35%	37%	37%	27%	23%
2pm-3pm	35%	38%	39%	41%	42%	26%	21%
3pm-4pm	41%	43%	45%	46%	47%	27%	21%
4pm-5pm	30%	33%	36%	40%	41%	27%	22%
5pm-6pm	24%	27%	30%	32%	35%	29%	23%
6pm-7pm	20%	25%	24%	27%	33%	32%	23%
7pm-8pm	18%	19%	19%	22%	26%	32%	21%
8pm-9pm	18%	17%	17%	19%	24%	28%	22%
9pm-10pm	19%	17%	17%	21%	28%	32%	24%
10pm-11pm	21%	20%	19%	20%	29%	35%	24%
11pm-12am	20%	18%	17%	19%	29%	38%	22%

2017							
	Days of week						
Hour	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
12am-1am	20%	19%	18%	17%	20%	22%	30%
1am-2am	19%	19%	17%	18%	21%	25%	33%
2am-3am	16%	18%	17%	18%	20%	23%	34%
3am-4am	16%	16%	15%	16%	19%	25%	34%
4am-5am	20%	17%	19%	16%	17%	18%	20%
5am-6am	24%	22%	20%	19%	20%	19%	19%
6am-7am	20%	18%	20%	17%	19%	17%	20%
7am-8am	20%	21%	22%	21%	20%	13%	16%
8am-9am	30%	33%	34%	33%	30%	16%	16%
9am-10am	32%	33%	34%	33%	32%	20%	21%
10am-11am	28%	31%	31%	33%	30%	23%	23%
11am-12pm	26%	29%	29%	31%	30%	25%	23%
12pm-1pm	27%	31%	31%	32%	31%	26%	23%
1pm-2pm	27%	30%	29%	32%	32%	24%	22%
2pm-3pm	30%	32%	34%	34%	34%	22%	21%
3pm-4pm	34%	36%	37%	37%	38%	22%	21%
4pm-5pm	28%	31%	31%	33%	34%	21%	21%
5pm-6pm	21%	25%	27%	27%	28%	22%	20%
6pm-7pm	17%	21%	22%	22%	23%	23%	19%
7pm-8pm	16%	18%	18%	19%	20%	21%	20%
8pm-9pm	15%	16%	15%	17%	16%	18%	19%
9pm-10pm	18%	17%	16%	19%	18%	21%	21%
10pm-11pm	17%	18%	17%	19%	21%	24%	20%
11pm-12am	16%	17%	17%	19%	22%	27%	19%

Passenger and driver wait times have not changed significantly

Another measure of the balance of supply and demand, as explained in appendix E, is customer wait times. Overall, customer wait times in Geelong (figure F.9) and the east urban area (figure F.10) have not changed much since 2014. They increased slightly in Geelong and decreased slightly in the east urban area.

Figure F.9: Average customer wait time by hour of the week for Geelong – booked trips only: 2013-14 and 2016-17

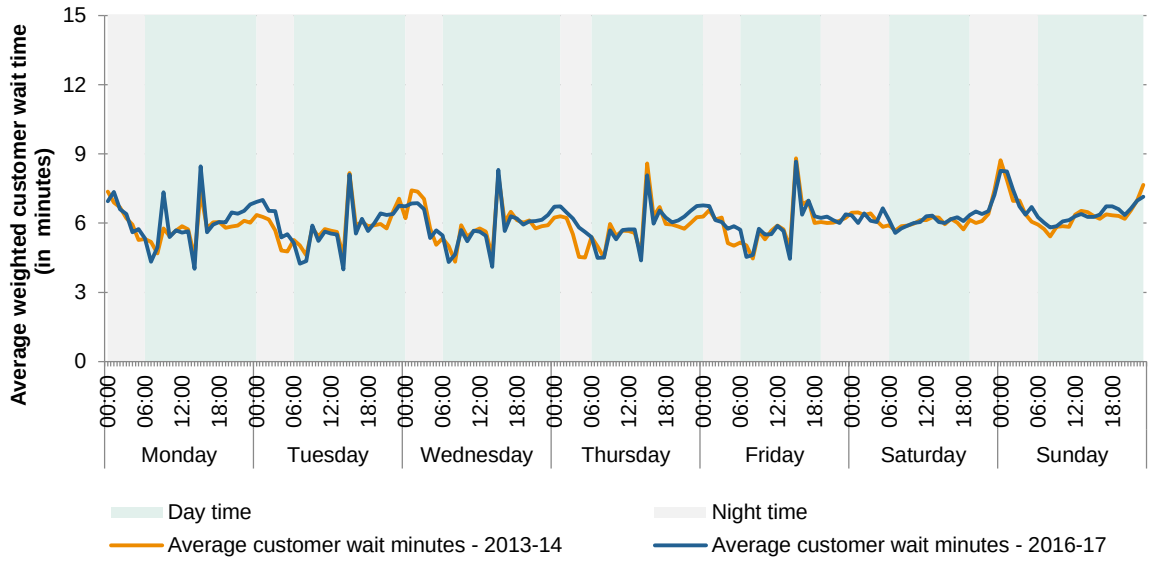
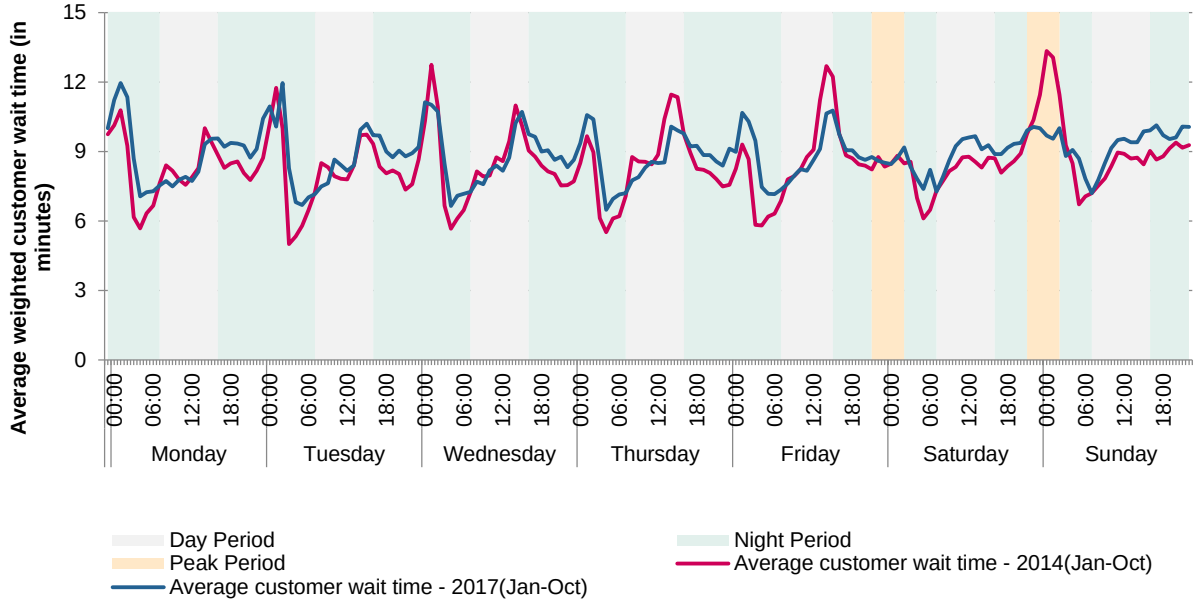
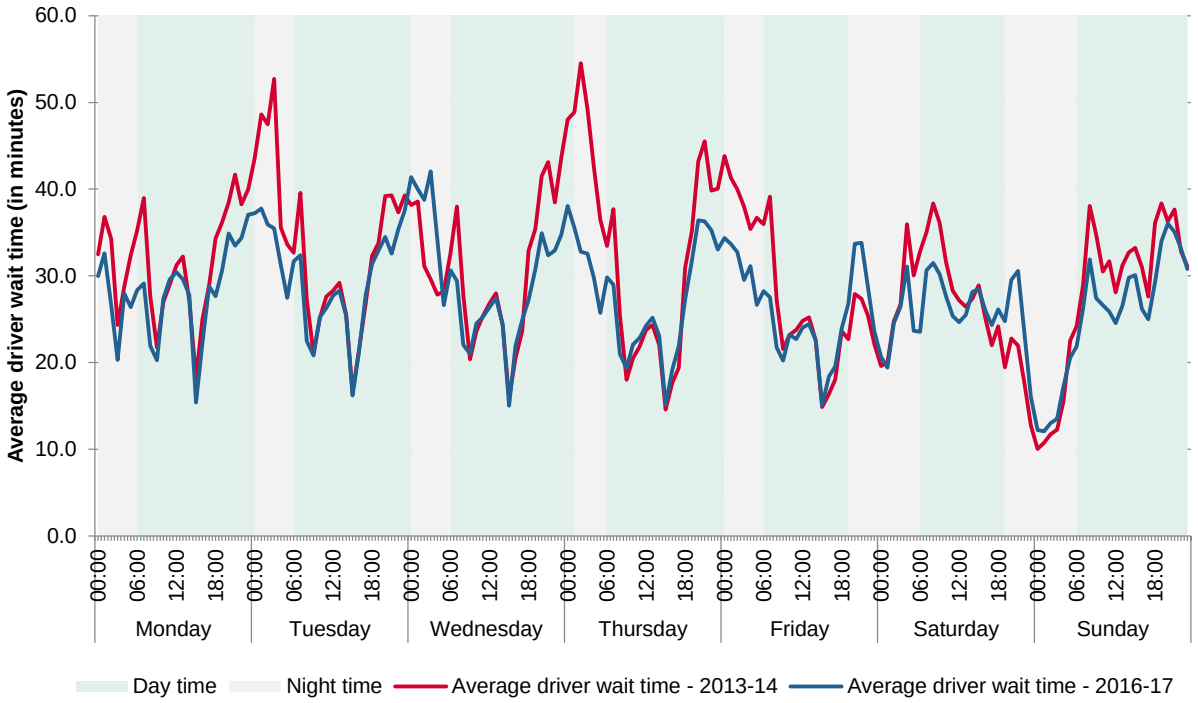


Figure F.10: Average customer wait time by hour of the week for east urban area – booked trips only: January-October, 2014 and 2017



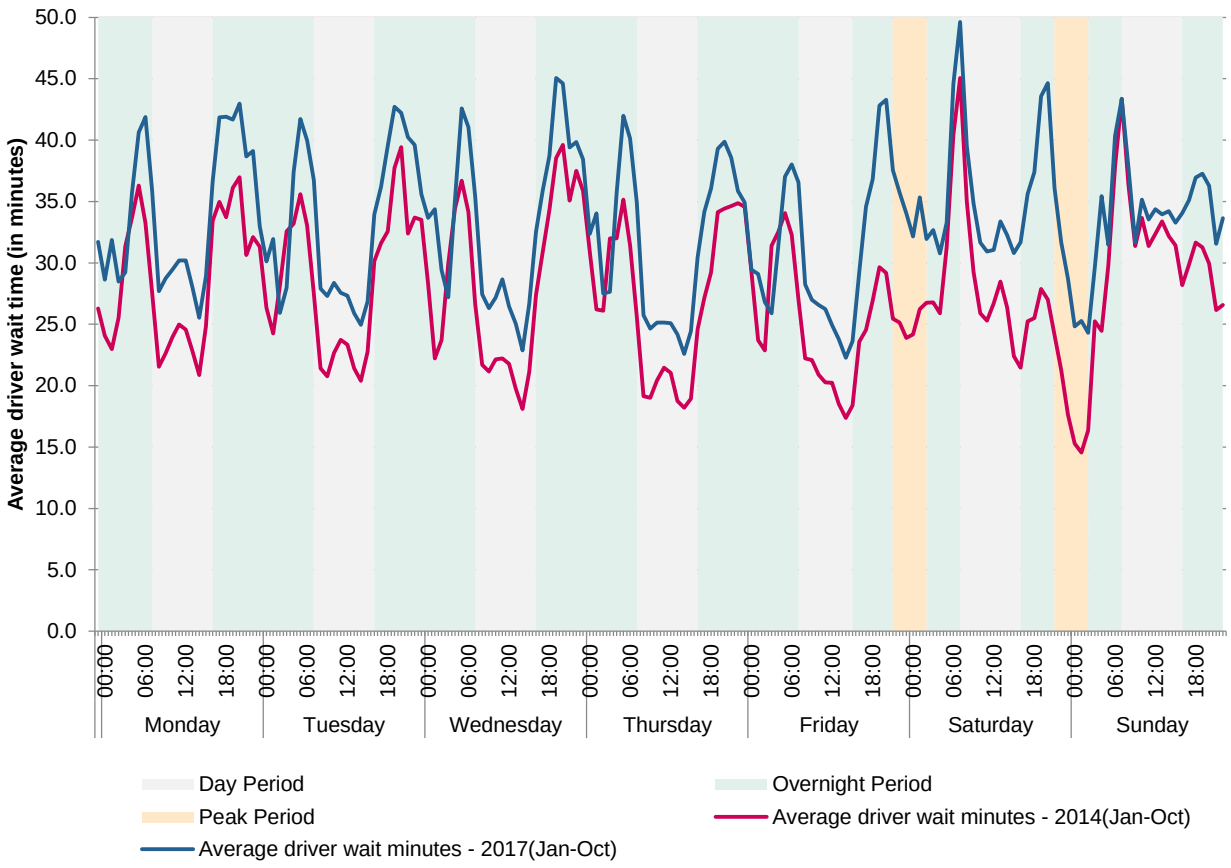
Similarly, the pattern of driver wait times has remained roughly the same (figure F.11). In Geelong, the average driver wait time decreased from 30 minutes in 2014 to 28 minutes in 2017. However, driver wait times on Friday and Saturday nights increased, which is consistent with our observations of lower occupancy rates at those times.

Figure F.11: Average driver wait time by hour of the week for Geelong – all taxis: 2013-14 and 2016-17



In the east urban area, the pattern of driver wait times has also remained largely the same since 2014 (figure F.12). However, on average driver wait time increased from 28 minutes in 2014 to 33 minutes in 2017. The increase applied across most hours of the week but is most prominent on Friday and Saturday nights starting from 5pm up to midnight. This is consistent with our observations of decreased occupancy rates in the east urban area.

Figure F.12: Average driver wait time by hour of the week for east urban areas– all taxis: January-October, 2014 and 2017



Taxi service levels

We examined taxi service levels in the urban zone using the following measures:[120]

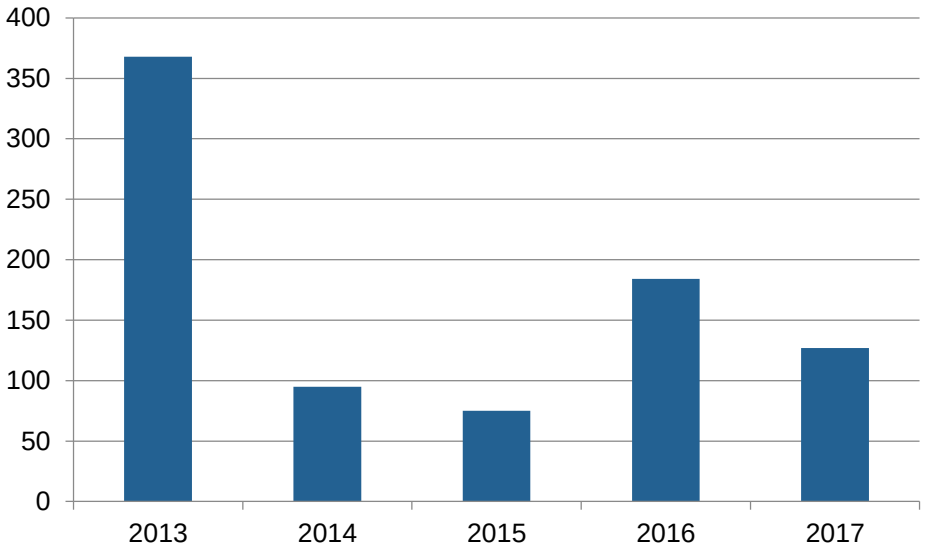
- customer wait times (calculated from Commercial Passenger Vehicles Victoria's taxi data)
- the total number of complaints about taxis lodged with Commercial Passenger Vehicles Victoria.

The quality of taxi services in the urban zone appears to have remained stable. On average customer wait times have remained unchanged (see figures F.9 and F.10 above) and the total number of complaints for the urban zone has also remained largely the same.

[120] Commercial Passenger Vehicles Victoria's customer satisfaction monitor is another measure, but, there is no specific customer satisfaction survey for the urban zone.

Figure F.13 shows an increase in complaints of 33 per cent between 2014 and 2017. We note however that this is a decrease of 65 per cent from 2013. Stable service quality during this period suggests that there is no need to increase the current maximum fares. The current fares are providing enough reward for taxi service providers to keep service standards stable.

Figure F.13: Total number of complaints in the urban zone – all taxis: 2013 to 2017



Appendix G: Detailed cost analysis

Keeping our analysis transparent

This appendix provides all of the figures necessary to understand our analysis of changes in costs since our last fare review. These include the cost survey results from our 2014 review, the cost shares derived from those results, and the indices we used to estimate how costs have changed since then. We provide this information to help stakeholders understand and have confidence in our analysis.

Calculating changes in the taxi cost index

Key taxi costs

In 2014 we commissioned a survey of metropolitan, outer metropolitan and urban taxi operators to understand the typical costs of operating taxis.[121] From the survey we identified key operational cost components: these costs are summarised in table G.1 below. We were also able to estimate the average amount spent on those components using the survey results.

Table G.1: Key costs for taxi operators

Cost component	Description
Fuel	Total fuel costs incurred by a taxi.
Network fees	Costs associated with network affiliation. Operators receive access to services such as centralised booking and dispatch and networked security alarms.
Insurance	Comprehensive insurance and workers' compensation insurance.
Vehicle cost	Includes costs associated with purchasing or leasing a vehicle, including fit-out. We have used purchase costs amortised over the life of the vehicle.
Registration / TAC	Includes compulsory third party insurance (Transport Accident Charge).
Repairs	Includes the cost of operators' own time, staff costs and costs paid to other businesses for maintenance and repairs.
Administration	Includes the cost of operators' own time, staff costs and costs paid to other businesses for administration (e.g. accountant).

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

Putting together the taxi cost index

To measure changes in taxi costs over time we used the survey results to make a taxi cost index. There are two basic parts to our taxi cost index: the component indices and the weighting of those indices. Each component index measures the change in one of the key costs we identified in our survey of taxi operators. For example, we measure changes in 'maintenance and repairs' costs using changes in the 'Melbourne consumer price index (CPI) maintenance and repairs of motor vehicles' index, available from the Australian Bureau of Statistics (ABS). The component indices are each assigned a cost share based on the percentage share of total costs for the relevant key cost from our survey results. By multiplying the change in each component index over time by its share of total costs, we can estimate the change in the total costs over time.

Component indices

With the exception of the fuel index (which we obtain from FuelTRAC) all indices come from publicly available sources including: the ABS, the Reserve Bank of Australia (RBA), the TAC and the Insurance Council of Australia (ICA). The indices we use for each key cost can be found below in table G.2.

Table G.2: Taxi cost index - Component and inflator

Cost component	Inflator
Fuel	FuelTRAC LPG
Network	50% equipment – CPI (telecommunications equipment and services, Melbourne) 50% labour – Wage Price Index (WPI)
Insurance	80% comprehensive – ICA comprehensive car insurance index 20% workers compensation – WPI
Vehicle	Imputed based on CPI (motor vehicle, Melbourne) and RBA lending rates for small business
Registration/TAC	Imputed based on actual Transport Accident Commission charge
Repairs and maintenance	CPI (maintenance and repairs of motor vehicles, Melbourne)
Administration	94% WPI 6% CPI

Cost shares

The cost shares assigned to each component index are based on the cost profile from our survey of taxi operators' costs in 2014. We used these weights to assign the relative importance to the component indices.

Using the cost components we are able to estimate the representative cost profiles, and cost weights, as shown in table G.3.

Table G.3: Cost profile for metropolitan zone taxis ($2014 excl. GST)[122] [123]

Cost component	Standard taxis		Wheelchair accessible taxis	
	Estimated cost	Cost share	Estimated cost	Cost share
Fuel	19,155	34.3%	19,813	32.5%
Network	7,256	13.0%	7,256	11.9%
Insurance	4,233	7.6%	4,652	7.6%
Vehicle	6,473	11.6%	10,551	17.3%
Registration/TAC	2,178	3.9%	2,178	3.6%
Repairs and maintenance	9,887	17.7%	9,887	16.2%
Administration	6,698	12.0%	6,698	11.0%%
Total operational costs	**55,880**	**100%**	**61,035**	**100%**

*Note: Due to rounding, the totals may not equal the sum of the rows

How changes in licence costs have been considered

Licence costs are not included in our taxi cost index, but we have considered the impact of changes to licence costs on the current fares.

The current fares include an allowance for industry returns. Industry returns are calculated as a percentage margin (14.5 per cent) on operating costs (the items in our taxi cost index) and driver earnings. They are similar to what an accountant would call an earnings before interest and tax (EBIT) margin. The equations below shows how industry returns were used to calculate the current maximum fares.

$$allowed\ revenues = operating\ costs + driver\ earnings + industry\ returns$$
$$revenues = operating\ costs + 0.55\ \times revenues + 0.145\ \times revenues$$

[122] Essential Services Commission, Taxi Fare Review 2013-14 – Final Report, March 2014, p. 44.

[123] We have not presented updated weightings for each year between 2014 and now to make the index easier to understand. When we updated the cost weights each year for changes in the indices we observed similar results on costs.

In the past, taxi operators used industry returns to pay licence holders. With the availability of low cost registration, taxi operators are no longer required to rent licences from licence holders. However, an industry return is still required to encourage investment in unbooked commercial passenger vehicles.

To remain profitable, taxi service providers must receive a commercial return to compensate them for their investments and the risk on those investments. These risks include: demand variability, changes in input costs, operating risks and regulatory risk. Without such returns there are no profits and therefore no incentive to invest. The current fares include industry returns on revenues of 14.5 per cent, unchanged from 2014 decision.

These returns were intended to create incentives for investment, not as an allowance for licence costs. In calculating the contribution of industry returns to fares, we made no explicit assumptions about how the allowed returns should be shared between different industry participants (particularly: operators, drivers and licence owners). It was up to industry participants whether those funds be reinvested or extracted by licence holders through licence assignments.

Because the current maximum fares do not explicitly include an allowance for licence costs, there is no need to decrease fares to account for the recent decrease in licence costs. However, the decrease in licence costs will significantly reduce costs for many operators. Prior to the introduction of low cost licences/registration, which can now be obtained for $53.80, the average annual amount paid by taxi operators to licence holders was around $18,000.[124] When we set the current fares in 2014 the average annual amount paid to licence holders was almost $27,000.[125] These funds that were once paid to licence holders can now be shared between taxi operators and drivers.

Operational costs for wheelchair accessible taxis (WATs)

Overall operating costs for WATs remain largely unchanged

We observed similar cost results for WATs as for conventional taxis.

Table G.4 below shows that the cost of operating WATs decreased slightly between March 2014 and June 2018. The decrease in costs was driven by decreases in fuel and registration costs of between ten and 68 per cent.

Overall, the decrease in the costs of operating a WAT in Melbourne was four per cent.

[124] Taxi Services Commission, Annual Report 2016-17, October 2017, p. 25.

[125] Taxi Services Commission, Annual Report 2013-14, September 2014, p. 31.

Table G.4: Change in taxi cost index for Melbourne WATs: March 2014 to June 2018

Cost Components	Change for cost component	Cost share	Contribution to overall change in index
Fuel	-10%	32%	-3%
Network (equipment)	-20%	6%	-1%
Network (labour)	10%	6%	1%
Comprehensive insurance	8%	6%	0%
Workers compensation	10%	2%	0%
Vehicle	-7%	17%	-1%
Registration	-68%	4%	-2%
Repairs and maintenance	9%	16%	1%
Administration	10%	11%	1%
Total*		100%	-4%

*Note: Due to rounding, the totals do not equal the sum of the rows

The high occupancy charge provides enough revenue for WATs

We have reviewed the current structure of fares to see if they give WAT operators a reasonable opportunity to recover their costs. WAT operators currently recover their additional costs through the high occupancy charge and the Multi Purpose Taxi Program (MPTP) lifting fee.

The high occupancy charge of $14 may be charged whenever a WAT carries 5 or more people, or when a passenger specifically requests a vehicle larger than a standard taxi. The MPTP lifting fee can be charged when a driver carries an MPTP member with a wheelchair or scooter taxi card.[126]

In 2016, the last year that we have complete data for, we estimate that there were roughly 180,000 high occupancy trips in Melbourne. Over the same period the lifting fee was paid 620,000 times. As a result, there was a pool of $5.2 million[127] to cover the difference in operating costs between WATs and conventional taxis in the metropolitan zone. In 2016, on average there were 454 WATs operating in Melbourne. As a result, the high occupancy fee and lifting fee provided roughly $11,000 per WAT. This is more than double our estimate of the difference between the annual

[126] Commercial Passenger Vehicles Victoria, Travelling with a disability, accessed 25 July 2018, http://taxi.vic.gov.au/passengers/travelling-with-a-disability.

[127] 5,200,000 ≈ 180,000 × 14 × 0.45 + 620,000 × 20 × 0.33.

costs of running a WAT and running a conventional taxi: $5,155 (table G.3 above). This suggests that on average the current financial incentives to invest in WATs are more than adequate.

However, the number of high occupancy and wheelchair trips is not distributed evenly between WAT operators. In particular, we understand that it can be difficult for new WAT operators to develop a customer base for these types of trips. But the financial rewards appear to be present for new WAT operators if they can develop a good client base.

We have not undertaken the same analysis for the urban zone due to the unavailability of data on high occupancy fees for large parts of the urban zone. However, we note that since entry restrictions have been removed the number of licensed WATs in the urban zone has increased from 80 in September 2017 to 112 in June 2018.

Appendix H: The legislation governing our role in setting maximum fares

Table H.1: Relevant sections of the Essential Services Commission Act 2001

	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. 8 (2)	Without derogating from subsection (1), in performing its functions and exercising its powers in relation to essential services, the Commission must in seeking to achieve the objective specified in subsection (1) have regard to the price, quality and reliability of essential services.
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.
s. 8A (2)	Without derogating from section 8 or subsection (1), the Commission must also when performing its functions and exercising its powers in relation to a regulated industry do so in a manner that the Commission considers best achieves any objectives specified in the empowering instrument.

Continued next page

	Section detail
S.33(2)	**Price determinations** In making a price determination, the Commission must adopt an approach and methodology which the Commission considers will best meet the objectives specified in this Act and any relevant legislation.
s. 33(3)	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.
s. 33(4)	In making a determination under this section, the Commission must ensure that— (a) the expected costs of the proposed regulation do not exceed the expected benefits; and (b) the determination takes into account and clearly articulates any trade-offs between costs and service standards
s. 33(5)	A price determination by the Commission may regulate a prescribed price for prescribed goods and services in any manner the Commission considers appropriate.
s. 33(6)	Without limiting the generality of subsection (5), the manner may include— (a) fixing the price or the rate of increase or decrease in the price; (b) fixing a maximum price or maximum rate of increase or minimum rate of decrease in the maximum price; (c) fixing an average price for specified goods or services or an average rate of increase or decrease in the average price; (d) specifying pricing policies or principles; (e) specifying an amount determined by reference to a general price index, the cost of production, a rate of return on assets employed or any other specified factor; (f) specifying an amount determined by reference to quantity, location, period or other specified factor relevant to the rate or supply of the goods or services; (g) fixing a maximum average revenue or maximum rate of increase or minimum rate of decrease in the maximum average revenue in relation to specified goods or services; (h) monitoring the price levels of specified goods and services.

Table H.2: Relevant sections of the Commercial Passenger Vehicle Industry Act 2017

	Section detail
s. 110A	***Definitions*** *In this Division—* *" applicable unbooked service " means an unbooked commercial passenger vehicle service in respect of carriage on a journey that begins in—* *(a) the Melbourne Metropolitan Zone; or* *(b) the Urban and Large Regional Zone;* *"Melbourne Metropolitan Zone" means the Melbourne Metropolitan Zone established under section 143B(1)(a) of the Transport (Compliance and Miscellaneous) Act 1983 (as in force immediately before the commencement of item 10.7 of Schedule 1 to the Commercial Passenger Vehicle Industry Amendment (Further Reforms) Act 2017 ;* *"Urban and Large Regional Zone" means the Urban and Large Regional Zone established under section 143B(1)(b) of the Transport (Compliance and Miscellaneous) Act 1983 (as in force immediately before the commencement of item 10.7 of Schedule 1 to the Commercial Passenger Vehicle Industry Amendment (Further Reforms) Act 2017.*
s. 110B	***Application to the Essential Services Commission Act 2001*** *(1) For the purposes of the Essential Services Commission Act 2001 —* *(a) this Division is relevant legislation; and* *(b) the commercial passenger vehicle industry is a regulated industry in relation to applicable unbooked services.* *(2) If there is any inconsistency between this Division and a provision of the Essential Services Commission Act 2001 , the provision of this Division prevails.*
s. 110C	***Objective of the ESC*** *The objective of the ESC in relation to the commercial passenger vehicle industry is to promote the efficient provision and use of applicable unbooked services.*
s. 110D	***Powers in relation to fares regulation*** *For the purposes of Part 3 of the Essential Services Commission Act 2001 —* *(a) applicable unbooked services are prescribed services; and*

Continued next page

	Section detail

(b) the maximum charges for the services covered by paragraph (a) are prescribed prices.

s. 110E ***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, an applicable unbooked service is provided;*
- *(b) the speed at which the commercial passenger vehicle used in the provision of the applicable unbooked service is travelling;*
- *(c) the distance travelled by the commercial passenger vehicle used in the provision of the applicable unbooked service;*
- *(d) the type of commercial passenger vehicle used in the provision of the applicable unbooked service;*
- *(e) the occupancy of the commercial passenger vehicle used in the provision of the applicable unbooked service, including where there is more than one passenger;*
- *(f) where a journey in respect of which the applicable unbooked service is provided begins or ends;*
- (g) *the prevailing economic conditions, including the price of fuel and the consumer price index;*
- (h) *any other matter the ESC considers to be relevant.*

s. 110F ***Exercise of regulatory functions***

(1) The ESC must make a determination under this Division of the maximum charges for applicable unbooked services before the first anniversary of the day on which this section comes into operation.

(2) The ESC must complete a review of a price determination no later than 2 years after it is made.

s. 110G ***Offence to charge or ask for a fare for an unbooked service in excess of the maximum fare***

A person who drives a commercial passenger vehicle for the purpose of providing an applicable unbooked service must not charge or ask for a fare for the service that is in excess of the fare or hiring rates permitted by a determination of the ESC under this Division.

Penalty: 60 penalty units.

Appendix I: Comparison of Australian taxi fares

Table I.1: Day period fares (as at August 2018)

Jurisdiction	Flagfall	Distance rate	Waiting rate
Australian Capital Territory[128]	$5.00	$2.06/km	86.7c/per minute
New South Wales[129]	$3.60	$2.19/km	94.4c/per minute
Northern Territory[130]	$4.40	$1.54/km	92.3c/per minute
Queensland[131]	$2.90	$2.17/km	82.0c/per minute
South Australia [132]	$3.70	$1.87/km	65.5c/per minute
Tasmania[133]	$3.60	$1.94/km	64.0c/per minute
Victoria[134]	$4.20	$1.62/km	56.8c/per minute
Western Australia[135]	$4.20	$1.72/km	81.7c/per minute

[128] ACT Government, Road Transport (Public Passenger Services) Maximum Fares for Taxi Services Determination 2017 (No 1), accessed 18 June 2018, http://www.legislation.act.gov.au/di/2017-247/current/pdf/2017-247.pdf.

[129] Transport for NSW (TfNSW), Point to Point Transport (Fares) Order 2018, accessed 18 June 2018, *https://www.transport.nsw.gov.au/system/files/media/documents/2018/taxi-fares-order-2018.pdf*.

[130] Northern Territory Department of Infrastructure, Planning and Logistics, Taximeter Fare Indicator, accessed 18 June 2018, *https://nt.gov.au/__data/assets/pdf_file/0005/279050/darwin-tariff.pdf*.

[131] Queensland Department of Transport, Maximum Taxi Fares Notice (no. 2) 2016, accessed 18 June 2018, https://www.tmr.qld.gov.au/-/media/busind/Taxiandlimousine/maximumtaxifaresnotice.pdf?la=en.

[132] South Australian Department of Premier and Cabinet, Taxi fares and charges, accessed 18 June 2018, https://www.sa.gov.au/topics/driving-and-transport/other-forms-of-transport/taxis.

[133] Tasmanian Department of State Growth, Taxi Fares, accessed 18 June 2018, http://www.transport.tas.gov.au/passenger/taxi/fares.

[134] Essential Services Commission, Determination of Maximum Taxi Fares (Recovery of Commercial Passenger Vehicle Services Levy from 1 July 2018), May 2018.

[135] Swan Taxis, Standard Taxi Fares and Charges, accessed 18 June 2018, http://www.swantaxis.com.au/fares.php.

Table I.2: Peak period fares (as at August 2018)

Jurisdiction	Flagfall	Distance rate	Waiting rate
Australian Capital Territory[136]	$5.00	$2.37/km	86.7c/per minute
New South Wales[137]	$6.10	$2.63/km	94.4c/per minute
Northern Territory[138]	$5.50	$1.89/km	92.3c/per minute
Queensland[139]	$4.30	$2.17/km	82.0c/per minute
South Australia [140]	$4.90	$2.16/km	65.5c/per minute
Tasmania[141]	$3.60	$2.32/km	64.0c/per minute
Victoria[142]	$6.20	$1.98/km	69.5c/per minute
Western Australia[143]	$6.10	$1.72/km	81.7c/per minute

[136] ACT Government, Road Transport (Public Passenger Services) Maximum Fares for Taxi Services Determination 2017 (No 1), accessed 18 June 2018, http://www.legislation.act.gov.au/di/2017-247/current/pdf/2017-247.pdf.

[137] Transport for NSW (TfNSW), Point to Point Transport (Fares) Order 2018, accessed 18 June 2018, *https://www.transport.nsw.gov.au/system/files/media/documents/2018/taxi-fares-order-2018.pdf*.

[138] Northern Territory Department of Infrastructure, Planning and Logistics, Taximeter Fare Indicator, accessed 18 June 2018, *https://nt.gov.au/__data/assets/pdf_file/0005/279050/darwin-tariff.pdf*.

[139] Queensland Department of Transport, Maximum Taxi Fares Notice (no. 2) 2016, accessed 18 June 2018, https://www.tmr.qld.gov.au/-/media/busind/Taxiandlimousine/maximumtaxifaresnotice.pdf?la=en.

[140] South Australian Department of Premier and Cabinet, Taxi fares and charges, accessed 18 June 2018, https://www.sa.gov.au/topics/driving-and-transport/other-forms-of-transport/taxis.

[141] Tasmanian Department of State Growth, Taxi Fares, accessed 18 June 2018, http://www.transport.tas.gov.au/passenger/taxi/fares.

[142] Essential Services Commission, Determination of Maximum Taxi Fares (Recovery of Commercial Passenger Vehicle Services Levy from 1 July 2018), May 2018.

[143] Swan Taxis, Standard Taxi Fares and Charges, accessed 18 June 2018, http://www.swantaxis.com.au/fares.php.

Appendix J: Stakeholder submissions on our draft decision

We have received a total of 49 written submissions from taxi drivers and operators in response to our draft decision which we released in June 2018.[144] We have also met with network service providers, operators, relevant government agencies, taxi and CPV associations and taxi drivers. The following table provides a summary of all the matters raised by stakeholders in their written submissions, and our responses.

Table J.1: Summary of stakeholder submissions

Theme	Submission summary	ESC response
Changes in maximum fares	Submissions received were mixed with stakeholders saying fares should remain the same, increase or decrease	
	• Fares should remain unchanged.[145]	Our final decision is that fares should remain the same (see chapter one).
	• Fares should be higher.	Our final decision is that fares should remain the same (see chapter one).
	– The cost of living has increased significantly since 2014. Fares have	Fares were last increased in 2014. Our analysis shows that operator costs have decreased since then.

[144] Essential Services Commission, Fare review for unbooked commercial passenger vehicle fare review 2018: Draft Decision, 21 June 2018.

[145] Anonymous, confidential submission received 12 July 2018; Anonymous, submission received 12 July 2018; Anonymous, confidential submission received 12 July 2018; Irfan Ali, submission received 12 July 2018; Habib Mohammed, submission received 12 July 2018; Wajid Ali, submission received on 12 July 2018; Anonymous, confidential submission received 12 July 2018; Amandeep Sran, submission received 12 July 2018; Anonymous, submission received 12 July 2018; Ahmed Ahmed, submission received 12 July 2018; Anonymous, submission received 12 July 2018; Rajesh Gupta, submission received 12 July 2018; Anonymous, confidential submission received 13 July 2018; Anonymous, submission received 13 July 2018; Anonymous, confidential submission received 13 July 2018; Anonymous, confidential submission received 14 July 2018; Anonymous, submission received 14 July 2018; Anonymous, submission received 15 July 2018; Anonymous, confidential submission received 19 July 2018.

	not been adjusted for inflation.[146]	
	– Look into drivers' plight. Drivers have a right to fair wages.[147]	See chapter four.
	– the ESC is overstating the impact of price on demand, and not paying sufficient attention to 'value' as a key determinant of demand.[148]	Our consideration of price elasticity is only one element of our analysis of market outcomes. What we have observed is that demand has decreased significantly. At the same time supply has almost doubled and costs have decreased. Generally, where we see these market outcomes all happening at the same time, we would expect prices to fall. We also note that booked fares are deregulated. If the taxi industry sees profit in providing a better value proposition by providing a higher cost premium service it could do this by way of charging a premium on booked trips. Apart from pre-existing silver service offerings we have not observed any taxi network increasing booked fares in this way.
	– The draft paper suggests that an increase in fares may send misleading signals to the market and attract even more taxis and CPVs on to the road. This paternalistic concern	The Victorian government has made the decision that unbooked taxi services require economic regulation. Our role is to determine maximum prices that promote the efficient use and provision of unbooked services. In coming to our decision we have considered both sides of the market: supply and demand. Demand for unbooked taxis has decreased

[146] Greg Gilliver, submission received on 5 July 2018; Karam Ghuman, submission received on 12 July 2018; Jitendra Prasad, submission received on 16 July 2018; Anonymous, submission received on 18 July 2018; Arminder Singh, submission received on 19 July 2018; Satnam Singh, submission received on 19 July 2018.

[147] Anonymous, submission received on 12 July 2018, Rashid Mehmood, submission received on 12 July 2018.

[148] 13CABS, submission received 10 August 2018.

	fails to properly regard both sides of market forces and is at odds with the new regulatory framework that governs the industry.[149]	significantly. At the same time supply has almost doubled and costs have decreased. Increasing prices in a situation like this could lead to inefficient oversupply and inefficient underuse.
	– The ongoing suppression of fares will further limit the ability of the taxi industry to compete with new entrants by limiting supply. [150]	Under the current maximum fares the number of registered taxis has almost doubled. This may suggest that maximum fares are not preventing competition by limiting supply. We also note that many stakeholders have said that currently there is an oversupply of taxis.[151]
	– It is simply unfair to say external parties may effectively increase the price of a taxi fare to meet their own commercial and economic objectives but a Taxi Driver cannot.[152]	Our maximum fares determination allows taxi service providers to recover increases in unavoidable costs associated with the CPV levy and airport access fees. Conversely, overall the cost of operating a taxi service has decreased by 4 per cent (see chapter four). In addition to this decrease some operators' licensing costs have also decreased by as much as $18 000 a year. As explained in our consultation paper we do not determine driver earnings. How much drivers and operators earn is influenced by: the demand for taxi services, the supply of taxis, the fares charged and how revenue is shared between drivers and operators.

[149] 13CABS, submission received 10 August 2018.

[150] 13CABS, submission received 10 August 2018.

[151] Karam Ghuman, submission received on 12 July 2018; Anonymous, submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Rodney Fox, submission received on 13 July 2018.

[152] 13CABS, submission received 10 August 2018.

	– The 2014 operating costs used in the draft decision are outdated[153]	Our analysis of costs in the draft decision reflected changes in costs between March 2014 and December 2017. We updated costs revealed in our 2014 survey of operators by using our taxi cost index as described in chapter four. Following our draft decision we have updated our taxi cost index using available data as at June 2018.
	– Network costs have increased[154]	Our cost index (see chapter four) indicates that network fees should remain the same. We also note that even if we assume that network fees have increased at the same rate as CPI since 2014 that overall operating costs would still have decreased.
	– LPG costs have increased since 2014.[155]	We acknowledge that LPG prices decreased significantly at the end of 2014. However, the LPG prices in our cost analysis for our 2014 review reflected the higher LPG prices from early 2014.
	– Operators' administrative costs have increased by 10%[156]	This matches what we have observed in our cost index. This increase in administrative costs has been offset by decreases in costs in other categories. Most notably a 68 per cent decrease in registration costs (see chapter four).
	– Replacement vehicle costs have increased[157]	Our cost index shows that vehicle costs have decreased (see chapter four). The ABS's Melbourne Motor Vehicles

[153] Anonymous, submission received on 22 July 2018.

[154] Anonymous, submission received on 22 July 2018.

[155] Anonymous, submission received on 22 July 2018.

[156] Anonymous, submission received on 22 July 2018.

[157] Anonymous, submission received on 22 July 2018.

		price index shows that motor vehicles are five per cent cheaper now than they were in March 2014.[158] We also note that according to the Reserve Bank of Australia, financing costs for small businesses are also lower.[159] We note that some stakeholders have told us that at the moment there is increased demand for vehicle models that have been traditionally used for taxis. Some stakeholders have told us this has increased the cost of acquiring a vehicle. Taxi service providers are not limited to using these models.
	– Insurance costs have increased[160]	Our analysis of costs shows that cost of insurance has increased from 2014 to 2017. But this increase has been offset by decreases in other operators' costs (see chapter four and appendix G).
	– Increases in other cost categories outweigh the decrease in the TAC charge.[161]	While increases in other cost categories may offset the decrease in the TAC charge, other costs have decreased too. When these cost decreases are also taken into account overall taxi operating costs are lower in June 2018 than they were in March 2014 (see chapter four).
	– With the number of taxis doubled, a taxi driver's income has decreased.[162]	As discussed in chapter one, increasing fares could put taxi service providers in a worse position than they are now.
	– Fares in Melbourne are lower than in Sydney and	In appendix I we have a comparison of fares across jurisdictions. Although Victorian fares are lower than in most

[158] ABS, Consumer Price Index June 2018, last accessed 31 July 2018, available at: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Lookup/6401.0Main+Features1Jun%202018?OpenDocument.

[159] RBA, Indicator lending Rates – F5, last accessed 31 July 2018, available at: https://www.rba.gov.au/statistics/tables/.

[160] Satnam Singh, submission received on 19 July 2018, Anonymous, submission received on 22 July 2018.

[161] Anonymous, submission received on 22 July 2018.

[162] Rashid Mehmood, submission received on 12 July 2018; Karam Ghuman, submission received on 12 July 2018; Anonymous, submission received on 13 July 2018; Avinash Thakur, submission received on 19 July 2018.

	Brisbane[163]	other jurisdictions, they are not unambiguously lower than in all jurisdictions. Fares are different in other jurisdictions for a variety of reasons. These could include: differences in cost, demand, licence numbers, expected service quality and traffic conditions.
	– Market should dictate the level of fares[164]	From 2 July 2018, taxi service providers are able to set their own fares for booked services. Our role is to set the maximum fares for unbooked services only (see appendices B and D). Taxi service providers are able to offer fares lower than the maximums if they consider this will help them compete.
	• Fares should be lower[165]	We have decided to keep fares stable at this point in time because the industry is going through significant changes (see chapter one).
'Time *and* distance' fare structure	• Some of the positives of time and distance tariffs raised are:	
	– Time and distance tariffs are easier for passengers to understand.[166] – Drivers will be paid fairly.[167]	Our decision is to offer the industry the option to adopt time and distance tariffs (see chapter five).

[163] Jibrail Naveed, submission received on 19 July; Anonymous, submission received on 19 July 2018; Anonymous, submission received on 19 July 2018.

[164] Rodney Fox, submission received on 13 July 2018; Anonymous, submission received on 13 July 2018.

[165] Anonymous, submission received 12 July 2018; Anonymous, submission received 16 July 2018.

[166] Habib Mohammed, submission received on 12 July 2018; Anonymous, confidential submission received on 12 July 2018; Rajesh Gupta, submission received on 12 July 2018; Anonymous, confidential submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Arminder Singh, submission received on 19 July 2018; Anonymous, confidential submission received on 19 July 2018; Jibrail Naveed, submission received on 19 July 2018; Anonymous, submission received on 19 July 2018; 13CABS, submission received 10 August 2018.

[167] Anonymous, confidential submission received on 12 July 2018; Anonymous, submission received on 12 July 2018; Rajesh Gupta, submission received on 12 July 2018; Anonymous, confidential submission received 13 July 2018; Jibrail Naveed, submission received on 19 July 2018; Anonymous, submission received on 19 July 2018.

	• Some of the negatives of time and distance tariffs raised are:	
	– Updating the meter software will involve additional costs and time.[168]	Time and distance tariffs are optional. We have given the industry the option to make their fares more flexible without forcing potentially unnecessary capital expenditure on them (see chapter five). Operators will not be required to change their meters.
	– It might be complicated for some drivers to explain and to calculate.[169]	Whichever tariffs are used, the meter will calculate the fares automatically. We recognise that there may be initial challenges but 'time **and** distance' tariffs are easier to understand than 'time **or** distance' tariffs. Also, their introduction is optional and would likely occur gradually (see chapter five).
	– Might create confusion and disagreement between passengers and drivers.[170]	The risk of disagreement between drivers and customers should not be any different than it is currently. Neither drivers nor passengers will choose tariffs at the start of the trip. Tariffs will be pre-programmed in the meter (see chapter five).
	– More expensive for passengers at peak hours or when there is heavy traffic due to accidents.[171]	During heavy traffic, fares would be higher regardless of which tariffs are used. 'Time **and** distance' tariffs are on average revenue neutral. The amount the passenger pays will on average be the same under both fare structures (see chapter five).

[168] Anonymous, submission received on 12 July 2018.

[169] Irfan Ali, submission received on 12 July 2018; Anonymous, submission received on 13 July 2018.

[170] Irfan Ali, submission received on 12 July 2018; Jitendra Prasad, submission received on 16 July 2018.

[171] Anonymous, submission received 12 July 2018; Jitendra Prasad, submission received 16 July 2018.

	– If the fare structure is revenue neutral there is no benefit in changing.[172]	Our decision is to offer the industry the option to adopt 'time **and** distance' tariffs (see chapter five). The industry will not be required to use them.
	– The existing tariff structure is working well and should not be changed.[173]	We are not changing the existing 'time **or** distance' tariffs. The time and distance tariffs are optional (see chapter five). The industry will not be required to use them.
Cleaning fee	• Maximum fares should include a cleaning fee. If a passenger vomits in the vehicle taxi drivers are not able to work for 2 hours or the rest of the shift.[174]	Our decision is to allow a reasonable cleaning fee of up to $120 (see chapter six). Soiling a taxi imposes real costs on taxi service providers and they should be allowed to recover these costs. A cleaning fee ensures that the person responsible bears the costs associated with cleaning a soiled vehicle.
	• Maximum fares should not include a cleaning fee.[175]	Our decision is to allow a reasonable cleaning fee of up to $120 (see chapter six).
Frequency of reviews	• The ESC should review	We are required by law to review the maximum fares at least every two years.

[172] Greg Gilliver, submission received on 5 July 2018, Anonymous, submission received on 12 July 2018.

[173] Anonymous, confidential submission received on 12 July 2018; Amandeep Sran, submission received on 12 July 2018; Anonymous, submission received on 12 July 2018; Karam Ghuman, submission received on 12 July 2018; Jitendra Prasad, submission received on 16 July 2018.

[174] Greg Gilliver, submission received on 5 July 2018; Anonymous, submission received 12 July 2018; Anonymous, submission received on 12 July 2018; Anonymous, confidential submission received on 12 July 2018; Irfan Ali, submission received on 12 July 2018; Anonymous, submission received 12 July 2018; Anonymous, confidential submission received on 12 July 2018; Amandeep Sran, submission received on 12 July 2018; Anonymous, submission received on 12 July 2018; Ahmed Ahmed, submission received 12 July 2018; Rashid Mehmood, submission received on 12 July 2018; Anonymous, submission received on 12 July 2018; Rajesh Gupta, submission received on 12 July 2018; Karam Ghuman, submission received on 12 July 2018; Anonymous, confidential submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Anonymous, confidential submission received on 13 July 2018; Anonymous, confidential submission received on 13 July 2018; Rodney Fox, submission received on 13 July 2018; Anonymous, confidential submission received on 14 July 2018; Jitendra Prasad, submission received on 16 July 2018; John Klonis, submission received on 18 July 2018; Anonymous, submission received on 18 July 2018; Arminder Singh, submission received on 19 July 2018; Anonymous, confidential submission received on 19 July 2018; Anonymous, confidential submission received on 19 July 2018; Anonymous, submission received on 19 July 2018; Jibrail Naveed, submission received on 19 July 2018; Anonymous, submission received on 19 July 2018; Satnam Singh, submission received on 19 July 2018; 13CABS, submission received on 10 August 2018.

[175] Anonymous, submission received on 12 July 2018; Habib Mohammed, submission received on 12 July 2018.

	fares annually and adjust for inflation.[176]	[177] In our next fare review, we will again assess market outcomes and changes in operators' costs to determine whether a fare change is necessary. Our cost index takes into account indices relating to inflation, wages and insurance among others (see appendix G).
Comparison of CPV services	• The ESC's draft decision compares pricing in the taxi industry to pricing for rideshare companies such as Ola, Taxify and Uber with an underlying view of reducing taxi fares to increase competitiveness.[178]	This is incorrect. The draft decision did not recommend a reduction in maximum taxis fares. Our draft decision was that maximum fares remain unchanged. However, we did note that total demand for unbooked taxis had decreased quite significantly due to increased competition from rideshare services. We also noted that in a market where demand decreases and supply increases (in the way that we have observed recently in the taxi industry) that we would generally expect prices to decrease.
Scope of review	• Regulates all CPV fares or none at all.[179]	Which CPV services should have their fares regulated is a matter for policy makers. It is beyond our powers to determine which services should be regulated.
Fare flexibility	• Fares should be flexible to allow unbooked taxis to better compete with other providers.[180]	The fares we set for unbooked taxi services are maximum. Unbooked taxi service providers are able to offer fares lower than the maximum fares when in their financial interests to do so. We also note that booked services are free to set their own prices. We are

[176] Greg Gilliver, submission received on 12 July 2018.

[177] Commercial Passenger Vehicle Industry Act 2017, section 110F(2).

[178] Anonymous, submission received on 22 July 2018.

[179] Harbinder Battu, submission on received 12 July 2018, Anonymous, confidential submission received on 19 July 2018.

[180] Anonymous, confidential submission received on 13 July 2018.

		unaware of any booked taxi services that are charging above the maximum fares for unbooked taxis.
Network fees	• Booking service providers do not provide many jobs but still charge high depot fees.[181]	As discussed earlier in this table, our analysis suggests costs for network operators have not changed which suggests network fees should remain stable, however network fees are rising.
Market entry	• There is an oversupply of CPV's. Limit or reduce number of vehicles.[182]	This is a matter for policy makers. It is beyond our powers to determine whether entry to the industry should be restricted.
CPV levy	• There should be a time limit on collecting the CPV levy.[183]	The period for which the CPV levy is collected is a matter for policy makers.
Cancellation fees	• The fare schedule should include a fee for 'no jobs' or cancellations.[184]	This is applicable to booked services. Our role is to set the maximum fares for unbooked services only. It is up to network service providers to set cancellation fees.
Taxi revenues	• The ESC should take into account the revenue generated from each taxi cab in Melbourne.[185]	In 2014 we set fares at a level that was sufficient to ensure the financial viability of the taxi industry.[186] Since then the cost of operating a taxi has decreased (see chapter four). This would suggest that current fares still generate enough revenue for the industry.

[181] Amandeed Sran, submission received on 12 July 2018; Ahmed Ahmed, submission received on 12 July 2018; Anonymous, confidential submission received on 12 July 2018; Arminder Singh, submission received on 19 July 2018.

[182] Karam Ghuman, submission received on 12 July 2018; Anonymous, submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Anonymous, submission received on 13 July 2018; Rodney Fox, submission received on 13 July 2018.

[183] Anonymous, submission received on 13 July 2018.

[184] Anonymous, confidential submission received on 12 July 2018.

[185] Anonymous, submission received on 22 July 2018.

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

	We cannot guarantee that all operators will be financially viable. This is because we cannot control supply and we cannot control demand. However, we note that since September 2017 the number of taxi service providers has almost doubled. This suggests many service providers consider the current fares produce enough revenue to turn a profit.

Appendix K: Calculating the 'time and distance' tariffs

When we calculated the new 'time **and** distance' tariffs we took steps to ensure that the 'time **or** distance' tariffs and the 'time **and** distance' tariffs are revenue neutral. This ensures that on average there is no difference in the total revenue generated by the 'time **or** distance' tariffs and the 'time **and** distance' tariffs.

To accurately calculate the duration rate (A) and the distance rate (B) we estimated regression[187] models. The regression equation is shown below. In the equation A is the time rate and B is the distance rate.

$$Fare\ estimate = Duration\ (in\ minutes) * \boldsymbol{A} + Distance\ (in\ kilometres) * \boldsymbol{B}$$

A separate regression was done for each tariff period in order to produce the 'time **and** distance' tariffs for each tariff period.

We used 33 data points for each tariff period. We used the average trip characteristics[188] for each one kilometre interval for trips between zero and 30 kilometres. We also added data points for the total revenue, distance, and time for all trips and another for all trips less than 30kms. We used data from 2016 as that was the most recent year that we have relatively complete data for.

To make sure that the results for 2016 were robust, we also did regressions using data for 2015 and 2017. We also estimated revenue neutral 'time **and** distance' tariffs using other non-linear models.

We chose to use the results from the regression using 2016 data to calculate revenue neutral 'time **and** distance' tariffs. This regression produced the most accurate results. This can be seen in figure K.1 below which shows the fares produced using the current 'time **or** distance' tariffs and those from our produced 'time **and** distance' tariffs.

[187] Regression is a method to quantify the relationship between a first variable (dependent variable) and other variables (independent variables) that are thought to be related and explain the variation in the first variable (dependent variable). The regression estimates the line of best fit given the observed data, with the objective of the regression to minimise the difference between what the regression model predicts the fare to be given the distance travelled in a trip and time elapsed in a trip with what is actually seen in the trip database.

[188] The average duration, the average distance and the average fare (excluding the flagfall and other fixed charges).

Figure K.1: Average fares for the current and new tariffs (metropolitan zone tariff 3)

Using these regressions we were able to calculate 'time **and** distance' tariffs for both the urban and metro zones that on average return the same amount as the current 'time **or** distance' tariffs. The time rate and distance rate for these tariffs can be seen in tables K.1, K.2 and K.3 below.

Table K.1: 'Time and distance' tariffs for the metropolitan zone and east urban area

	'Day' (9am-5pm)	'Overnight' (5pm-9am)	'Peak' (Fri & Sat nights 10pm-4am)
Standard fare components		**Maximum charge up to**	
Flagfall ($)	4.20	5.20	6.20
Distance rate ($/km) (at all times)	1.342	1.490	1.648
Duration rate ($/min) (at all times)	0.344	0.379	0.408

Table K.2: 'Time and distance' tariffs for Geelong, Ballarat and Bendigo

	Conventional taxis	High occupancy trips
Standard fare components	**Maximum charge up to**	
Flagfall ($)	3.60	3.60
Distance rate ($/km) (at all times)	1.494	2.441
Waiting time ($/min) (at all times)	0.491	0.521

Glossary

Term	Definition
Applicable unbooked services	An unbooked commercial passenger vehicle service in respect of carriage on a journey that begins in the Melbourne Metropolitan Zone; or the Urban and Large Regional Zone.
Booked market	The market for commercial passenger vehicle services whereby customers book the service prior to travel.
Booking service provider	A person, company or association who provides a service that reserves CPVs to transport passengers at a certain time, departure point, and destination.
Commercial Passenger Vehicle (CPV)	Any motor vehicle used or intended to be used for carrying passengers for hire or reward, excluding a bus used to provide a bus service.
Commercial Passenger Vehicles Victoria	Commercial Passenger Vehicles Victoria, formerly the Taxi Services Commission, is the new regulator of the commercial passenger vehicle industry.
CPV levy	Under the Commercial Passenger Vehicle Industry Act 2017, commercial passenger vehicle service providers will become liable for the CPV levy; initially set at $1 per commercial passenger vehicle transaction. The purpose of the CPV levy is to partly fund regulation of the industry and to fund transitional assistance for certain industry participants.
CPV operator	A person who owns, maintains and operates a CPV. A CPV operator may engage a driver for their vehicle or they may drive the vehicle themselves.
Day tariff	The maximum tariff rates applicable from 9am to 5pm in the metropolitan zone.
Distance rate	A fare component that is a fee per kilometre travelled. In current taxi fares the distance rate applies when travelling over 21 kilometres per hour.
Fare calculating/metering device	A mechanical, electrical or electronic device that calculates, records or displays information about fares and charges for the provision of

	unbooked commercial passenger vehicle services. Commercial Passenger Vehicles Victoria is responsible for specifying the functional requirements of fare calculating devices.
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.
Flagfall	A fare component that is a fixed fee charged regardless of the distance travelled or journey time.
High occupancy	The carriage of five or more passengers at a time in a commercial passenger vehicle.
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.
Hire cars	Hire cars are commercial passenger vehicles that provide booked services only.
Metropolitan zone	Referred to in legislation as the 'Melbourne Metropolitan Zone', the taxi zone comprising key areas of metropolitan Melbourne (see Commercial Passenger Vehicles Victoria website for zone maps).
Multi Purpose Taxi Program (MPTP)	A government program that subsidises taxi fares for people with severe and permanent disabilities. MPTP members receive a 50 per cent subsidy on taxi fares up to a maximum of $60 per trip and $2180 per year. Some MPTP members, for example those using wheelchairs, are exempt from the annual cap.
Network service provider	A provider of booking and dispatch services, who acts as an intermediary between taxi drivers and customers. They are now called booking service providers.
Overnight tariff	The maximum tariff rates in the metro zone applicable from 5pm to 9am (excluding the peak tariff period).
Peak tariff	In the metro zone, the maximum tariff rates applicable from 10pm to 4am on Friday and

	Saturday nights, all day Christmas Day, Boxing Day, from 6pm on New Year's Eve and all day New Year's Day.
Price determination	A price determination is the legislative instrument we use to set maximum fares.
Rideshare services	Booked commercial passenger vehicle services that use the driver's personal vehicle to provide a transport service. These services are offered to passengers through an accredited booking service: generally a smartphone application.
Smartphone booking apps	Smartphone booking applications that connect CPV drivers with passengers through a booking interface. Some smartphone apps include both booking and payment processing functionality. App providers include 13CABS, GoCatch, Ingogo, Ola, Scooti, Sheba, Silver Top Taxis, Taxify and Uber.
Taxi	Taxis are commercial passenger vehicles that provide booked and unbooked services.
Taxi network	A provider of taxi booking and dispatch services, connecting passengers with taxi drivers through a booking service.
Taxi Services Commission (TSC)	The TSC was responsible for regulation of the commercial passenger vehicle industry until 2 July 2018. The TSC was established on 1 July 2013 as the independent industry regulator as part of the Taxi Industry Inquiry's recommended reforms. Effective 2 July 2018, the TSC has been replaced with Commercial Passenger Vehicles Victoria as the industry regulator.
The Commission	The Essential Services Commission (ESC) — Victoria's independent economic regulator of certain prescribed services as determined by the Victorian Government. The Commission is responsible for setting maximum fares for unbooked CPVs in the metropolitan and urban zones.
'Time and distance' tariff	A 'time **and** distance' tariff calculates fares for CPV trips using a time rate and distance rate that apply at the same time.
'Time or distance' tariff	A 'time **or** distance' tariff, calculates fares for CPV trips using only the 'time **or** distance' rate that applies (depending on the speed of the vehicle). The current maximum fares are 'time **or** distance' tariffs.

Unbooked CPV demand	Unbooked CPV demand is the volume of unbooked CPV services that passengers want at a given price level. As a proxy of demand for unbooked CPVs we have used unbooked taxi trips.
Unbooked CPV supply	Unbooked CPV supply is the availability of unbooked CPV services at a given price level. As proxies for unbooked CPV supply we have used taxi licence numbers, taxi shift hours, and active taxis. Licence numbers shows the potential supply of CPVs. Active taxis and taxi shift hours give a better measure of the actual level of unbooked CPV supply.
Unbooked market	A sub market of the market for commercial passenger vehicle services, whereby services are procured either from taxi ranks, hailed from the street or trips that have not been booked via an application, over the phone or website. The rank and hail market is currently serviced exclusively by taxis.
Urban zone	Referred to in legislation as 'the Urban and Large Regional Zone', the taxi zone comprising of Geelong, Ballarat, Bendigo, Frankston, Dandenong and the Mornington Peninsula (see Commercial Passenger Vehicles Victoria's website for zone maps).
Waiting time rate	A fare component that is a per minute charge. In current taxi fares the waiting time rate applies when travelling at 21 kilometres per hour or slower (also referred to as the 'time rate').
Wheelchair Accessible Taxi (WAT)	Taxis with WAT licences are designed to transport people in wheelchairs. WATs may also operate as high occupancy vehicles that can carry up to 11 passengers when not carrying people in wheelchairs.