

Chapter 2

The Economics of Fuelwatch

Addressing information asymmetries

2.1 Petrol is a very homogeneous product. While the petrol sold by a Coles Express service station, a BP station and a Gull station may be 'branded', in many cities it all comes from the same refinery so is really an identical product. Furthermore, petrol accounts for a sufficiently large proportion of household spending that it is worthwhile trying to buy it at a good price. These factors should lead to a very competitive market as customers compare prices and buy at the cheapest outlet. This in turn should drive prices down to the level at which petrol retailers are earning just enough profit margin to stay in business.

2.2 However, this potential competition is impeded, if not thwarted, by the unusual volatility of petrol prices. There are no other non-perishable consumer goods, or services, for which prices are so volatile.¹ As a Senate report from the previous parliament put it:

Daily and weekly fluctuations in the price of petrol cause significant bafflement to many Australians, resulting in confusion...²

2.3 The volatility makes it very hard for motorists to compare prices. For example, if a consumer is told by a friend that they saw on the way to work that a particular service station had a low price, this provides little incentive to divert to that station on the way home as that station and other stations' prices are likely to have changed (perhaps a number of times) during the course of the day. Even if the consumer himself drives past a station offering a good price on the way to work, he will not know it's a good price until he has gone past a run of stations with higher prices. He would then have to either backtrack (and risk being late to work) or hope the good price was still there in the evening.

2.4 There are certainly large signs outside service stations displaying the current price at that station. But this does not tell the customer how this price compares to that being charged by rival stations at that time and by the next day it is likely to have changed. Due to the unusual volatility in petrol prices, knowing today's price is not

1 Prices in financial markets, such as share prices and exchange rates are also volatile, but information and transactions costs are much lower in these markets so that prices quoted from different brokers will vary very little in contrast to the large differences in prices between service stations.

2 Senate Standing Committee on Economics (2006, p. 19).

much help in predicting what the price will be tomorrow at a given outlet and at its rivals.

2.5 This volatility does more than just add 'noise' to the market. It does not affect buyers and large sellers equally. Rather there is a problem of 'information asymmetry'. The large petrol retailers subscribe to a service from a company called 'Informed Sources'. The company collects price data from 3 500 retail sites by a combination of paying people to ride around noting down prices and having their subscribers send price data to them. Informed Sources then provides its customers with information every 15 minutes about what other stations are charging. Armed with this information, the large petrol retailers have an unchallengable advantage over consumers in the market.

2.6 This information asymmetry is likely to mean that the retail price of petrol is higher than in a competitive market. Firstly, consider the case of a normal, reasonably competitive market. Suppose a bookseller is deciding what price to charge for a popular title in an advertisement in the weekend newspaper. He notes the book has been selling well and is thinking of increasing the price. He knows that if other booksellers follow his price increase, he will lose few sales and so profits will rise. But if none of his competitors increase their prices for the book, he may lose a lot of sales and so profits may fall. There is therefore a risk attached to deciding to increase the price of the book.³

2.7 By contrast, information asymmetry greatly reduces this risk in the retail petrol market. A petrol retailer who puts up her price will know that her competitors will be aware of this almost immediately and she will be aware almost immediately of their response. So if the price rise is not followed it can be reversed, before consumers become aware that her price is higher than her peers, and so before there has been much loss of sales. Her rivals may well follow her lead in raising prices as they know if she changes her mind and cuts the price again, they can respond immediately.

2.8 Information asymmetry also discourages petrol stations from cutting prices. A lower price will reduce the profit on sales that would have been made anyway. Rivals will know of it immediately and may match it, removing any extra sales to the most price-conscious customers. Many other customers who might have been attracted by the lower price will be unaware of it, or unsure whether other stations have also lowered their prices.

2.9 The information asymmetry gives rise to 'lazy competition'.⁴ While the use of the Informed Sources information by the large retailers is not illegal, the ACCC has described it as being 'as being as close to illegal collusion as you can get'.⁵

3 This risk could be reduced by colluding with the other sellers to agree to all increase their prices, but this is illegal.

4 Mr Graeme Samuel, ACCC, *Proof Committee Hansard*, 7 August 2008, p. 12.

5 Mr Graeme Samuel, ACCC, *Estimates Hansard*, 5 June 2008, p. 21.

2.10 Fuelwatch will greatly reduce this information asymmetry. As stations are required to 'lock in' their prices for 24 hours, they will risk a loss of sales if they increase their price. As useful information about prices becomes more readily available to motorists, they will be more willing and able to shop around and buy petrol where it is cheapest, increasing the incentive for stations to cut prices. After 4 pm they will know both the current day's price and the next day's price at all their local stations. As more buyers will be able to switch their purchases to stations offering lower prices, the market will become more competitive.

2.11 The above argument for the benefits from Fuelwatch was put by the Australian Competition and Consumer Commission, the state department responsible for FuelWatch in Western Australia, independent academics and others:

By having to quote fixed fuel prices for a 24 hour period, petrol retailers will have to make better judged and more competitive choices on fuel prices.⁶

The disincentive to be the first to hike price is much greater under the 24-hour-rule. Without the rule, the price leader for a cycle knows that once its price is hiked, other firms can respond very quickly (within hours) by hiking their prices as well. If other firms do not respond quickly, the price leader can quickly retract its price hike to avoid losing much market share. However, under the 24-hour-rule, after a price leader hikes its price, other firms cannot respond within 24 hours. The price leader has to lose market share for an entire day – it cannot retract its price hike either.⁷

...it puts the real mettle on the sellers of petrol to get their prices as keen as possible. It was best explained to me by Michael Luscombe, the CEO of Woolworths, when he said to me: 'Graeme, Fuelwatch is going to operate to the disadvantage of consumers. If I have a site and I post a price at 2 pm today that is 5c higher than my competitor's site down the road, then the consumers will have to pay 5c more for their petrol.' I said to him: 'No, Michael, they will go down the road and you just won't sell any petrol. What that says to you is to be keen on your tender at 2 pm today. Get your price right. If you are too high you will lose sales. You might have a higher margin, but you will have a higher margin and almost no sales.'⁸

...it is definitely creating an environment where consumers are empowered with information to make choices, and, to a certain extent, that would force competition in the pricing of fuel.⁹

6 National Roads and Motorists Association, *Submission 23*, p. 2. A similar argument was made by Mr Aaron Rayner, WA Department of Consumer and Employment Protection, *Proof Committee Hansard*, 16 July 2008, p. 5.

7 Professor Wang, *Submission 27*, p. 6.

8 Mr Graeme Samuel, ACCC, *Estimates Hansard*, 5 June 2008, p. 22.

9 Mr Peter Callaghan, Commerce Queensland, *Proof Committee Hansard*, 18 July 2008, p. 15.

2.12 The committee does not believe opponents of the scheme ever offered a convincing rebuttal of this argument. The logic of the argument is that over time Fuelwatch will not only help those motorists using it to locate stations offering cheaper fuel, but the added stimulus to competition will push down average prices for all.

2.13 While the direction of the impact on prices from this improvement in competition is clear, the magnitude will vary over time and across locations. Not all customers will immediately start accessing the Fuelwatch information so the effect will build up over time. The impact should be larger in markets where information is currently harder to find.

2.14 The most important factor determining the retail price of petrol will remain the wholesale price, and therefore the world price of oil and the exchange rate (with about a week's lag).¹⁰ But even a reduction of a few cents per litre due to a more competitive retail market adds up to a significant saving for motorists. And unlike a cut in the excise duty, it is an amount shifted to consumers from large oil companies and retailers not from other taxpayers.

Could a modified scheme achieve a similar result?

2.15 An alternative suggested in a number of submissions was making more pricing information available but still allowing intraday price changes; 'Fuelwatch without the 24 hour rule'. The Service Station Association endorses requiring stations to notify the ACCC of their *opening* prices for the next day, but believes (at least small independent) stations should be able to *cut* (but not increase) their price during the day.¹¹

2.16 However, such an approach would not get around the problem that consumers would not know that what they were told was the lowest price in the area would still be the lowest by the time they made their purchase. It also weakens the disincentive Fuelwatch builds in for raising prices. The committee has seen many views that allowing prices to fall would vitiate the scheme:

I just do not see how that system could work.¹²

10 ACCC (2007, p. 13); Senate Standing Committee on Economics (2006, pp 5-7, 22). The Australian Institute of Petroleum correctly note that Australia has low petrol prices by international standards; *Proof Committee Hansard*, 11 August 2008, p. 18. However, the main reason for this is that Australia has relatively low taxes on petrol; among the 28 OECD economies in a comparison by the Department of Resources, Energy and Tourism only the three North American countries have lower taxes. On a pre-tax basis, petrol prices in Australia are similar to those in its peers; ACCC (2007, p. 45) and DRET cited in *Submission 2a*, p. 21.

11 Service Stations Association, *Submission 7*, p. 2. Similar views were put by the Motor Trades Association of South Australia, *Proof Committee Hansard*, 21 July 2008, p. 11 and Royal Automobile Club of Victoria, *Proof Committee Hansard*, 7 August 2008, p. 49.

12 Mr Mike Mullins, Gull Petroleum, *Proof Committee Hansard*, 16 July 2008, p. 13.

...that would undermine the whole value of Fuelwatch...not only does it tell consumers what the range of prices is on any given day...they have some certainty about buying at that price. If the retailers are able to vary their prices down, they have no idea then where the cheapest available price is. The other concern...is that it takes away the rigour that they have to go through at the moment in setting a price.¹³

...this would undermine the key objective of the scheme.¹⁴

Mr Buswell said [after receiving advice from his department that] his previous push for changes that would allow petrol stations to lower their prices on the same day to match competitors had been dismissed because it would 'undermine the integrity' of the system.¹⁵

2.17 For these reasons the committee believes the 24 hour rule is an integral part of the Fuelwatch scheme.

The demand for better information on petrol prices

2.18 Some opponents of Fuelwatch have argued that it is too costly or asked why similar schemes are not being applied to other goods and services. One response to these arguments is the points made above that petrol prices are unusually, almost uniquely, volatile; that the information asymmetry problem is particularly acute for petrol; and that petrol constitutes a significant amount of household budgets.

2.19 A more complete answer is to consider what signs there are that better information is desired and the most cost-effective means of providing it.

2.20 The committee heard of an enormous demand for better information about petrol prices, from both retailers and consumers.¹⁶ The dissenting report in the Interim Report states that 'we are all in favour of more information for consumers'.¹⁷ This is

13 Mr David Moir, Royal Automobile Club of WA, *Proof Committee Hansard*, 16 July 2008, p. 24.

14 Mr Jim Murphy, Treasury, *Proof Committee Hansard*, 11 August 2008, p. 27.

15 WA's Consumer Protection Minister cited in report in *West Australian*, 9 October 2008.

16 Among those advocating more information for consumers are the Royal Automobile Club of Tasmania, *Proof Committee Hansard*, 11 August 2008, pp 11-12; Royal Automobile Club of Victoria, *Proof Committee Hansard*, 7 August 2008, p. 48; National Roads and Motorists Association, *Proof Committee Hansard*, 1 August 2008, p. 16; Choice, *Proof Committee Hansard*, 7 August 2008, p. 61; Royal Automobile Club of Queensland, *Proof Committee Hansard*, 17 July 2008, p. 11; National Seniors, *Proof Committee Hansard*, 11 August 2008, p. 14 and Professor Zumbo; *Proof Committee Hansard*, 1 August 2008.

One practical suggestion to improve information displayed on boards outside stations would to standardise colours in which different types of fuel are advertised; Flynx, *Submission 36*, p. 5. Similar ideas are expressed by Informed Sources, *Submission 22a*, p. 4.

17 *Interim Report*, p. 31.

despite the large amount of resources currently being expended on collecting and distributing information on petrol pricing.

2.21 About half of surveyed motorists said they would be likely to use an internet site or email alerts to know about petrol prices.¹⁸

Reducing the cost of gathering and distributing information

2.22 Fuelwatch will introduce a single national gatherer and disseminator of petrol price information, giving rise economies of scale. The provision, processing, distribution and accessing of this information will also become cheaper as prices will not be varying as often.

2.23 The administrative costs of Fuelwatch will comprise initial capital costs of \$1.3 million and annual operating costs of around \$4½ million.¹⁹ The compliance costs of the proposed Fuelwatch scheme would be minimal, only requiring petrol stations making at most one daily call to a toll-free number or sending an email.²⁰ By contrast, the committee heard of much larger costs currently being incurred by large retailers, small retailers, motoring organisations and consumers in obtaining information on petrol prices.

2.24 The large petrol retailers mainly get data by buying it from 'Informed Sources', a private company that collates fuel price data. Informed Sources declined to disclose how much it costs them to gather their information or how much they charge for it, but it is clearly substantial. Some of the price information is gathered by Informed Sources' subscribers sending in the information, but they also gather information on prices charged by non-subscribers by sending drivers around to note down prices. The only estimate of the cost of the Informed Sources operation used by the large petrol retailers available to the committee was that made by FUELtrac:

It is estimated that this system of direct data exchange between participating Oil Companies and the Supermarket chains costs in the order of \$3 – \$4 million per annum.²¹

2.25 A television station told the committee that the cost of obtaining price information was high:

...it was going to cost us an extraordinary amount of money to pay MotorMouth [a subsidiary of Informed Sources] to collate that information...They quoted me \$50,000 per year per market..²²

18 ACCC (2007, p. 300).

19 *Explanatory Memorandum*, p. 7; *Budget Paper no. 2*, p. 291 and *Estimates Hansard*, 5 June 2008, pp 42-3. This estimate of operating costs seems plausible given that the WA government currently spends \$700 000 a year operating its FuelWatch system.

20 The *Explanatory Memorandum* says 'the estimated compliance cost for business is zero'.

21 Cited in Australian Automobile Association, *Submission 19a*, p. 19.

2.26 Informed Sources stated:

it currently costs in excess of \$50k pa for each car and driver we put on the road in capital cities to collect prices six hours per day across 350 days per annum and with each vehicle covering more than 100,000 kilometres each year.²³

2.27 National coverage would require such cars and drivers in every regional centre and multiples in cities, which would represent an annual cost of millions of dollars a year, which given the relatively inelastic demand for petrol is being passed on to motorists.

2.28 As well as the amount retailers pay Informed Sources for the data, there are the costs involved in staff sending price information every 15 minutes to Informed Sources to provide the data sold back to them.

2.29 Small independent operators cannot afford to subscribe to the Informed Sources service. Instead they spend time and money driving around town checking rival stations' prices:

Normally I check the fuel prices myself in my own area three times a day... I have to physically jump in a motor vehicle and look at price boards.²⁴

...on my way to work I drive around the 17 other sites in Bendigo and I write the price down. When I go out through the course of the day, I will go out and do the 17 sites... I am checking the price sometimes four or five times a day, because sometimes I will change the price two and three times a day. ...I look at price checking as another job that I do throughout the day. It is no different from sweeping the floor or stacking the fridge. That is what makes my business competitive.²⁵

2.30 Informed Sources estimate the cost of an independent station driving around twice a day to collect this information about their immediate competitors as over \$10 per day.²⁶ Even if the costs were as low as \$10 a day, which seems unlikely, this would imply a total annual cost of the order of \$2½ million a year.²⁷

22 Mr Stephen Marshall, WIN Television, *Proof Committee Hansard*, 18 July 2008, p. 17. This is disputed by Informed Sources, who claim they never provided a 'firm quotation'; *Submission 22a*, p. 9.

23 Informed Sources, *Submission 22a*, p. 9.

24 Mr Timothy Kane, Service Station and Convenience Store Association of Queensland, *Proof Committee Hansard*, 17 July 2008, pp 5-6.

25 Mr Carew, APCO, *Proof Committee Hansard*, 7 August 2008, pp 45-7.

26 Informed Sources, *Submission 22*, p. 23.

27 The AIP estimates there are 784 independent petrol stations in Australia (*Submission 2a*, p. 8), but a tenth of these may be in Western Australia.

2.31 Independent retailers also need to spend managerial time deciding how to respond to price moves through the day, rather than making a decision once a day under Fuelwatch.

2.32 As well as Informed Sources, another private company, FUELtrac, also collates and sells information on petrol prices. Shell has a website with information on prices at its stations. Various motoring associations, consumer groups and media organisations also spend money on collecting information on petrol prices.²⁸ As the NSW motorists' organisation pointed out:

That is not a costless exercise. It is a costly exercise.²⁹

2.33 Motorists' organisations will no longer have to undertake this costly exercise if Fuelwatch is rolled out nationally.

2.34 The WA government will save \$0.7 million a year from not needing a separate FuelWatch in Western Australia.

2.35 The ACCC's survey shows that outside Western Australia, the predominant source of information on petrol prices is boards outside service stations.³⁰ Some consumers will just look at the prices on roads along which they were travelling, but might then have to backtrack if they realise an earlier station had been the cheapest. (Without the 24 hour rule under Fuelwatch, they cannot look at the prices on the way to work in the morning and then buy on the way home, as the prices are likely to have changed.) Other consumers will drive out of their way to check prices at other stations. Others join queues on the assumption that these must be cheap stations. The extent of these search costs are often neglected in discussions of Fuelwatch:

Fuelwatch... reduces the search costs that they currently face in trying to work out where to find the cheapest petrol. Those costs include not just time; they also include money in the form of petrol driving to places that they did not want to be.³¹

28 The committee heard that fuel price information is posted on websites by motoring associations in New South Wales, Victoria, Queensland, South Australia and Tasmania. Of course this is a cost the Western Australian motoring organisation does not incur as a Fuelwatch scheme already operates in WA. Other websites with fuel prices include one operated by a radio station in the Northern Territory; Mr Robert Bradley, Automobile Association of the Northern Territory, *Proof Committee Hansard*, 7 August 2008, p. 66. These were discussed in more detail in the *Interim Report*, pp 9-10.

29 Mr Alan Evans, National Roads and Motorists Association, *Proof Committee Hansard*, 1 August 2008, p. 16. Similarly, the Royal Automobile Association of South Australia 'invest very heavily in tracking price movements'; Ms Sharon Hanlon, *Proof Committee Hansard*, 21 July 2008, p. 2.

30 ACCC (2007, p. 299).

31 Mr Gordon Renouf, Choice, *Proof Committee Hansard*, 7 August 2008, p. 61.

2.36 If a third of motorists spend just a dollar a year in extra driving looking for cheaper petrol, or queuing on Tuesday evenings, then saving this expense would pay for the running costs of a national Fuelwatch scheme.³²

2.37 Reducing these costs by introducing Fuelwatch removes a deadweight loss to the economy as a whole. The excessive time and money being devoted to collecting petrol prices can instead be redirected to more worthwhile activities.

2.38 Furthermore, all the expense currently incurred is merely providing a patchy coverage of what petrol prices *had been*. They do not provide what is actually most useful to motorists: what petrol prices *will be*. This is what Fuelwatch can provide. Furthermore, the information from Fuelwatch will also be more accurate than that gathered in other ways. As one independent retailer put it:

Because of the legislation and the fines Fuelwatch would be deadly accurate, so we think that would be an advantage.³³

Petrol price cycles

2.39 There are regular weekly price cycles in Sydney, Melbourne, Brisbane and Adelaide. (Price fluctuations are less regular or non-existent in Canberra, Hobart, Darwin and rural areas.) Typically prices peak on Thursdays and are lowest on 'magic Tuesdays'.³⁴ The large petrol retailers refer to these cycles as 'discounting cycles', but they could, perhaps more accurately, be called 'surcharging cycles'.

2.40 It is generally the stations affiliated with a refiner in that city that lead the price up in the cycle, when the wholesaler announces the withdrawal of price support to retailers.³⁵ However, the large petrol retailers operate sophisticated strategies which allow them to adjust prices on a localised basis.³⁶ Independent retailers used to be

32 At average earnings, two minutes of queueing or additional driving costs a dollar. There are 15 million cars registered in Australia ACCC (2007, p. 1). Allowing for some people with multiple cars, this implies over 13½ million motorists, so a dollar each for just a third of them would more than cover the annual running costs of Fuelwatch.

33 Mr Andrew Fischer, Australian Farmers Fuel, *Proof Committee Hansard*, 21 July 2008, p. 21.

34 The cycles have been around a long time but with gradual changes. A South Australian select committee (2001, p. 33) found 'a pattern of high prices around Tuesday/Wednesday chasing down to low prices around Sunday/Monday'. The term 'magic Tuesday' was coined by Mr Aivars Blums, Motor Trades Association of Queensland, *Proof Committee Hansard*, 17 July 2008, p. 1.

35 ACCC (2007, pp 14 and 136).

36 ACCC (2007, p. 14).

more aggressive discounters but this has been less common since the entry of the supermarkets with their shopper docket schemes.³⁷

2.41 A further complication is that the wholesalers may sometimes provide 'price support' to franchisees, owner-operators and supermarkets, temporarily lowering the wholesale price to allow the stations to 'discount' for a period, perhaps to match price cuts by rival stations. In some cases this price support may be dependant on the retailer not exceeding a maximum set by the wholesaler.³⁸

2.42 Most customers are well aware these cycles exist. Most motorists try to buy petrol when they think it is cheapest rather than just when they need it.³⁹ However motorists are limited in the extent to which they exploit their (imperfect) knowledge of the price cycles. An opinion poll conducted for the ACCC in November 2007 showed 74 per cent of motorists correctly nominate Tuesday as the best day to buy petrol but only 47 per cent buy petrol on Tuesdays. Only 20 per cent of petrol is sold on Tuesdays.⁴⁰

2.43 Regardless of the extent to which sales of petrol are artificially shifted to Tuesday evenings, it seems an inefficient practice. One example of the impact it causes was described by a witness:

the other night a police car was parked across the Shell service station on the corner of Chappell Road and Dandenong Road to stop traffic from going out into the road and blocking the trams.⁴¹

2.44 One indication of the uncertainty that consumers face about price cycles is indicated by some 'urban myths' that have grown up around them. One persistent belief is that petrol prices spike more before long weekends than other weekends.⁴² However the ACCC's analysis shows this is not the case. Customers also overstate the difference between prices at the peak and the trough of the cycle.⁴³

37 ACCC (2007, p. 137).

38 Mr Michael Ridley-Smith, Caltex, *Proof Committee Hansard*, 1 August 2008, p. 24.

39 The opinion poll commissioned by the ACCC in November 2007 showed that 70 per cent of motorists usually or always try to buy petrol when it is cheapest while 28 per cent just buy when they need it. The latter group includes many of the 8 per cent of customers for whom someone else (presumably mostly employers) pays for the petrol. An opinion poll conducted for the Australian Automobile Association showed that 49 per cent of motorists try to buy when petrol is cheapest, up from 41 per cent in 2005. ACCC (2007, pp 31-2).

40 ACCC (2007, pp 177-9, 290, 293).

41 Mr Terrence Conroy, Victorian Automobile Chamber of Commerce, *Proof Committee Hansard*, 7 August 2008, p. 33.

42 ACCC (2007, p. 31). 68 per cent of motorists were 'extremely concerned' about this, so presumably an even larger proportion believe it happens. See also Senate Standing Committee on Economics (2006, pp 26-7).

43 While the variation during the weekly cycle is typically 5-10 cents per litre, the average customer estimates it at 13 cents.

2.45 Those arguing that cycles are desirable assert they are predictable for consumers.⁴⁴ However, from time to time the cycle mysteriously disappear – as occurred in Melbourne for most of May 2008 (Chart 3.2) – or the timing of them shifts, further confusing customers.⁴⁵

2.46 These cycles are much more marked in Australia than in overseas retail petrol markets.⁴⁶ Despite extensive analysis by the ACCC, 'the causes ... are an enigma'.⁴⁷ Industry spokespersons also did not understand their cause.

2.47 The typical observed pattern of quick price rises followed by gradual declines is consistent with the Edgeworth cycles theory where a small number of competing retailers are continuously undercutting each other by small margins in an attempt to increase market share until a substantial price rise is required to restore viability.⁴⁸ This theory is supported by the large petrol retailers and Informed Sources.⁴⁹ It does not explain why the cycle has such a regular periodicity. It is also noteworthy that it is a theory about an oligopoly, not about a competitive market.

2.48 Another possible explanation is that refineries are trying to smooth their production by adjusting (wholesale) prices to even out demand across the week and this is flowing into retail prices.⁵⁰ However, there is no weekly price cycle evident in wholesale prices.⁵¹ Furthermore, a problem with the smoothing argument is that sales tend to be higher than average on the days prices are lower,⁵² which would imply that prices are being persistently over-cut.

2.49 The cycles are most likely a form of price discrimination. Retailers are trying to segment the market so they can sell at a higher price to those who buy petrol on a 'when needed' basis but still sell to more price conscious consumers on the

44 For example, Australian Institute of Petroleum, *Submission 2a*, and Royal Automobile Club of Victoria, *Submission 24*, p. 2.

45 Informed Sources suggests this happens when a large shipment arrives or there is a shutdown at a refinery; *Submission 22*, pp 25-6.

46 ACCC (2007, pp 162-3). An exception may be Norway, which has similar cycles; Informed Sources, *Submission 22*, p. 26.

47 ACCC (2007, p. 16). On their website, the ACCC describe the reasons for price cycles as 'complex' and include 'possible anti-competitive practices'.

48 ACCC (2007, pp 164, 350-2). The theory was first developed in Edgeworth (1925).

49 Informed Sources, *Submission 22*, pp 24-6; and Professor Wang, *Submission 27*.

50 It may go back to when workers were predominantly paid on a Friday and would fill the car up while out shopping on a Saturday morning; Neumann Petroleum, cited in ACCC (2007, p. 174). A similar explanation is put by Informed Sources, *Submission 22*, p. 25.

51 Australian Institute of Petroleum, *Submission 2a*, p. 14.

52 Cited in ACCC (2007, p. 177).

Tuesdays.⁵³ An analogy might be drawn with cinemas charging more for tickets on Saturdays than on Tuesdays.⁵⁴ However, unlike in the petrol market, cinemagoers may benefit from this as more people want to go to cinemas on Saturdays and there are capacity constraints on how many can attend. In general, price discrimination is a means of increasing profits at the expense of consumers, rather than an act of altruism on the part of sellers.

2.50 The committee heard a range of views about whether the existence of cycles implies a higher or lower average price of petrol. If the cycles are the result of price discrimination, then this implies that those buying on the 'cheap' day are getting the price that would prevail generally in the absence of information asymmetries and other market imperfections. The other customers are paying more than a competitive price. Measures that make the market more competitive would then tend to reduce prices on the more expensive days but leave them unchanged on the 'cheap' days, both dampening the cycle and lowering the average price. As some witnesses put it:

If the oil companies tell you the fuel cycle is good for you, then you have to be a bit suspicious, because it is good for them and I am not sure it is good for consumers.⁵⁵

The benefits accrue to the sellers of petrol, not to the consumers.⁵⁶

2.51 On the other hand, those who claim that price cycles result in lower average prices have to explain why the differences between the high and low points of the cycles in the Eastern capitals exceed the average margin on petrol.⁵⁷ This implies that

53 Although not using the term 'price discrimination', Professor Zumbo explains the cycle in essentially these terms; *Proof Committee Hansard*, 1 August 2008, p. 39.

54 Those on a 'date', wanting to go out with a large group of friends or not wanting a late night when working the next day may be willing to pay the higher price on a Saturday while individuals on a tight budget may prefer to buy the cheaper ticket on a Tuesday.

55 Mr Peter Fitzpatrick, Motor Trade Association of WA, *Proof Committee Hansard*, 16 July 2008, p. 19.

56 Mr Aaron Rayner, WA Department of Consumer and Employment Protection, *Proof Committee Hansard*, 16 July 2008, p. 5.

57 The difference between the low and high points of the cycle is typically 8-10 cents per litre (see Charts 3.1 and 3.2, and ACCC (2007, p. 157)) while the average margin between wholesale and retail prices over 2002-03 to 2006-07 was 4.7 cents per litre in Sydney, 4.9 cpl in Melbourne, 5.1 cpl in Brisbane and 3.7 cpl in Adelaide; ACCC (2007, appendix J). These estimates were supported by industry sources: 'the average amplitude of the cycle [in June 2008] was around 7 cents per litre', Australian Institute of Petroleum, *Submission 2a*, p. 15; 'the gross margin averaged close to 5 cents per litre in 2007-08', Australian Institute of Petroleum, *Submission 2a*, p. 14; 'in terms of the total costs of running a retail outlet of the size that we would normally run, you are probably looking at approximately 5c a litre to cover your costs'; Mr Wright, Neumann Petroleum, *Proof Committee Hansard*, 17 July 2008, p. 18; 'gross retail margin on fuel in metropolitan areas is usually of the order between two and three cents per litre', Motor Trades Association, Queensland, *Submission 12*, p. 1.

stations are selling at a loss at the low point of the cycle.⁵⁸ The committee has not heard a convincing explanation as to why stations would choose to do this persistently. If, as seems more plausible, stations are not selling at a loss on Tuesdays⁵⁹, then they are making supernormal profits on the other days of the week.

The 'buying below the average' fallacy

2.52 A commonly-used argument is that consumers benefit from the cycle as they buy petrol at below the average price. For example, the Australian Institute of Petroleum comment:

AIP members strongly believe that there is considerable evidence to suggest that consumers benefit significantly from buying heavily discounted petrol at the low point in the price cycle...Discount cycles favour the consumer, with over 60% of petrol sales occurring below the average price of the price cycle...[as the ACCC show] more than 60 per cent of weekly sales were made on the four days of the week (ie. Sunday, Monday, Tuesday & Wednesday) when the average daily price was below the average weekly price...⁶⁰

2.53 If consumers bought petrol completely at random, then one-seventh or 14 per cent of sales would occur each day. This would imply that 57 per cent of sales would be made on Sunday, Monday, Tuesday and Wednesday (or whichever four days had the lowest prices). No convincing argument was given that an extra, possibly insignificantly different, 3 per cent of sales occurring on these days should be a goal of policy.⁶¹

2.54 The proportion of petrol sold on days where the price is below the weekly average depends on how high prices go at the peak of the cycle. Indeed, to ensure that a large proportion of consumers paid less than the average posted price, one would double the price of petrol for a night a week, so that nearly 100 per cent of sales are made below the weekly average price. This is absurd of course, but it illustrates why 'the proportion of sales made below the average price' is not a sensible criterion for evaluating market structures.

58 This was claimed by Mr Gary Fites, Royal Automobile Club of Queensland, *Proof Committee Hansard*, 17 July 2008, p. 12 and Mr Terrence Conroy, Victorian Automobile Chamber of Commerce, *Proof Committee Hansard*, 7 August 2008, p. 34. One witness suggested that if stations were charging a price below cost, this may not be in consumers' interests: 'in the United States, where they do have prohibition against below cost pricing, those prohibitions have led to a lower price being paid by consumers for petrol'; Professor Frank Zumbo, *Proof Committee Hansard*, 1 August 2008, p. 40.

59 The dissenting report in the *Interim Report* says 'clearly no station does so permanently'; p. 33.

60 Australian Institute of Petroleum, *Submission 2a*, p. 18. The point was reiterated by their Dr John Tilley, *Proof Committee Hansard*, 11 August 2008, p. 18.

61 For a further discussion, see ACCC (2007, pp 175-6) and references cited there.

Intra-day price movements

2.55 In addition to the interday movements each week, there are often intra-day price changes which make it much harder for consumers to compare prices. This variation is very unpopular with consumers. The classic example is a customer who complained that the price had risen by 15 cents a litre while she was waiting in a queue.⁶² Indeed, 83 per cent of customers would prefer the same price apply all day.⁶³ A majority of customers would prefer no intra-day volatility even if, as Fuelwatch critics assert, this meant a less predictable weekly cycle. A third of all customers, even those who are most price conscious, would be willing to pay higher average prices if it meant no intraday volatility.⁶⁴ Fuelwatch's 24 hour rule will remove the annoyance of intra-day price variations.

Petrol prices in regional areas

2.56 Petrol prices are generally higher in regional areas. Over the longer term the average differential between regional and city prices is around 5 cents per litre.⁶⁵ The reasons are described by the Australasian Convenience and Petroleum Marketers Association:

The nature of a fuel retail business in regional and rural Australia differs greatly from that of a metropolitan site, lower population and smaller operations with a greater reliance on petrol margins than on other complementary profit centres necessitates a model of operation vastly different to what the majority of consumers would recognise. The higher prices in the country compared to the city are principally due to, higher service station operation costs, higher cost of supply to service stations and more sites and therefore more competition in the metropolitan area. Additionally, with lower passing trade, discounting in most cases does not necessarily translate into more customers and sales.⁶⁶

62 Cited by the Hon Chris Bowen MP, *House Hansard*, 29 May 2008, p. 3870.

63 ACCC (2007, pp 280-1, 295-6). The dissenting report in the *Interim Report* also states that 'such price movements are unpopular'; p. 35.

64 44 per cent of motorists nationwide are 'extremely concerned' about intraday volatility (the national average being pulled down by Perth motorists where intra-day variation is prohibited). 63 per cent would prefer a uniform price all day even if this meant a less predictable weekly cycle. Given a choice 33 per cent of motorists would prefer no intraday variation and 48 per cent would prefer a lower average price. ACCC (2007, pp 280-1, 295-6).

65 ACCC (2007, p. 146).

66 ACAPMA, *Submission 6*, p. 2. Doubts were expressed in Karratha about the reasons given for petrol prices there being higher than in Perth given that the north-west is closer to sources of imported oil; *Proof Committee Hansard*, 14 July 2008.

2.57 There is a longer delay between oil prices reflecting in regional petrol prices than in city prices, which means the country-city differential initially narrows when oil prices rise and widens when it falls.⁶⁷

2.58 The ACCC expressed concern about the impact of Fuelwatch in rural areas due to 'the increased potential for anti-competitive effects in rural and regional areas due to the more concentrated nature of the market there'.⁶⁸ Concerns have also been expressed by a small business organisation:

In many small communities there may only be one supplier to the local market, and again free competition is not available. A business will inevitably then maximise return and offset risk. Where price projections are being required, the cost/price risk will be factored in. This will then elevate the overall price average...The only simple way in which an operator (particularly a small operator) can offset risk is in risk premium pricing. The average would inevitably trend higher.⁶⁹

2.59 Some regional witnesses referred to the utility of Fuelwatch:

I think it is productive in regional areas...I think people are aware of it, and they do use it to their benefit around towns... everyone is really quite for FuelWatch for the consumers...⁷⁰

2.60 Informed Sources suggest that increasing competition in the cities would result in higher prices for rural customers:

Assuming that most businesses in competitive markets are operating at or near to minimum economic return then a reduction in margin in the cities must be made up through increases in other parts of the business. One logical area would be to recover this reduction by increases in the rural area of Australia through higher prices.⁷¹

2.61 However, if the markets are truly competitive than a chain attempting to offset lower margins in the cities by raising margins in rural areas would find themselves losing business there to independents who did not operate in the city.

67 ACCC (2007, p. 147).

68 ACCC (2007, p. 17).

69 Rockhampton Chamber of Commerce, *Submission 3*, p. 2.

70 Ms Leann Cooper, Karratha and Districts Chamber of Commerce and Industry, *Proof Committee Hansard*, 14 July 2008, p. 9.

71 Informed Sources, *Submission 22*, p. 14.

The 'Fuelwatch of the future'

2.62 Some submissions have referred to how in the future there may be alternative ways of making the retail petrol market more competitive.⁷² Emerging technology will mean that motorists will be able to get an analysis from an on-board computer of the cheapest petrol outlets in the area, their distance from the car's current position, and directions on how to get there. It will also be possible to send a message to the service station locking in the price of petrol. A further development would be a computer, possibly onboard the car, automatically emailing all nearby stations asking for them to make a bid, binding for say the next hour, to supply petrol.

2.63 These possibilities are interesting, and offer potential for a more competitive market. However, as it will be years yet before such technology is widely available, it is no reason not to proceed with the introduction of Fuelwatch now.

72 SEP Consultants, *Submission 38*; Informed Sources, *Submissions 22, 22a*.