Evaluating FuelWatch

Submission to the Senate Inquiry into National Fuelwatch (Empowering Consumers)

Submission

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About

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About the Author

Joshua Gans is an economics professor at Melbourne Business School in Australia. His research focuses on microeconomics, competition policy and innovation. He is the author of several textbooks and policy books, as well as numerous articles in economics journals. Gans received a Bachelor of Economics (Honours) and the University Medal from the University of Queensland before going to Stanford University to study for his Ph.D. in Economics. He graduated from Stanford in 1995 and moved to Melbourne Business School in 1996 as an Associate Professor and became a full Professor in 2000. Gans also founded CoRE Research; a leading economics consultancy on competition and regulatory matters. In 2007, Gans received the inaugural young economist award from the Economic Society of Australia. This is an award given every two years to the best economist working in Australia, who is aged under 40.

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Introduction

I am an economics professor at the Melbourne Business School, University of Melbourne and Director of the Centre for Ideas and the Economy. My speciality is in competition policy and my experience involves the publication of over one hundred refereed academic publications and the founding of a successful consulting business, CoRE Research, in this area.

Last year, I made two submissions to the ACCC's Petrol Pricing Inquiry. In one of these I called for greater information flows for consumers in markets. I suggested that technology had progressed enough to make that information easy to disseminate. FuelWatch is an example of a policy along these lines. In this submission, I outline why I think FuelWatch in its current intended form will bring net benefits to economic efficiency and to consumers in particular. However, I also note that it is likely that FuelWatch can be improved in this regard. Consequently, I offer suggestions as to how his might be achieved.

The Efficiency Benefits of FuelWatch

There are two theoretical pathways by which FuelWatch is intended to improve economic efficiency. Each has to do with the provision of information. The first pathway stems from the fact that drivers have imperfect information regarding which petrol outlets have the cheapest price at any given time. On any given day, prices between stations can range by 20 cents or more. However, there is an issue as to how consumers locate the cheapest price. They can drive around but this is costly. And some websites that do provide such information are incomplete. If policy-makers can devise a system by which the cost to consumers or searching for lower prices can be made cheaper, that will enable them to apply competitive pressure and reduce the occurrence of relatively high priced stations.[2]

The second pathway stems from a concern that the pricing information that consumers would need exists but is currently only shared amongst petrol stations. By subscribing to a service from Informed Sources, petrol outlets can know the prices of all potential competitors at any time. Of course, this avenue has always been open to them but they would have had to use the same means as ordinary consumers (e.g., driving around). In some cases, information was shared by phone calls. The concern is that when competitors have price information but consumers do not, the means exists by which they might refrain from price competition for fear of triggering price wars.

Of course, the lack of price information does not impact on all consumers equally. Some have become very savvy and have learned which days prices are lower than others. A price cycle has emerged and the savvy consumers take advantage of it by refueling on the low priced days. Petrol stations, knowing these days are more competitive, toe the line. The problem is that while these consumers get competitive prices, they face costs in so doing and moreover, those drivers that cannot take advantage of those days end up being hit with higher prices.

By providing pricing information, FuelWatch restores power to consumers. First, it eliminates the asymmetry that exists because outlets have price information and consumers do not. Second, it will increase the numbers of consumers with knowledge of lower prices. That will likely have the direct effect of increasing competition.

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[2] Joshua S. Gans and Stephen P. King, "Regulating Endogenous Customer Switching Costs," *Contributions to Theoretical Economics*, Vol.1, Issue.1, 2001, Article 1.

For these reasons, **as a matter of theory, FuelWatch is a well-intentioned policy hitting at some key competitive issues**.

The Evidence on FuelWatch

That said, these are theoretical arguments. What is more, FuelWatch does not just provide price information. It also involves petrol outlets fixing their prices for 24 hours. This too helps consumers as they only need check on price information once a day. They won't be in the situation of setting out to find a low price station and finding higher prices when they get there.

But the fixing of prices for 24 hours makes the job of setting prices more difficult for petrol outlets. Previously, the fact that they would change their prices during the day indicates they had some reason for it. Managing inventory is an obvious candidate as is reacting to lower or higher prices from competitors. But a petrol station could potentially be concerned about setting prices too low and running out of stock. Theoretically, it was possible that FuelWatch might cause more harm by causing stations to be too conservative in price setting.

Fortunately, FuelWatch as a national policy was preceded by FuelWatch as a policy in Western Australia. What is more, as part of its petrol price inquiry, the ACCC was able to secure relevant data -- from Informed Sources -- to conduct a detailed econometric analysis of the impact of that scheme on prices. What is more, the ACCC was very clear as to the approach they used to analyse that data; so much so that anyone with access to the same data would be able to replicate their study.

The ACCC's econometric analysis demonstrated that the average petrol price in WA dropped significantly when the scheme was introduced there: of the order of 1.5 cents per litre. And this was a long term drop that did not seem to favour independents or majors. Put simply, it seemed that providing information stimulated competition (as opposed to the 24 hour fix causing prices to rise). What is more it removed the weekly price cycle and expanded it to a fortnightly one. Discounts were still there but once every couple of weeks.

Some commentators suggested that the price fall observed by the ACCC was associated with something else, for instance, the entry of Coles in WA. Examining the ACCC documentation demonstrates that this was not the case. The ACCC used a test for endogenous structural breaks to look for significant events. They found that both Coles' entry and FuelWatch were such events but that FuelWatch's effect was almost three times as large.

Other commentators suggested that while FuelWatch lowered prices on average, it raised prices on the previously low priced days. They claimed this would disadvantage bargaining hunters. But the ACCC looked at this issue too. They analysed the highs and lows of the petrol price cycle. They found that the introduction of FuelWatch in WA, not only reduced prices by 3.5 cents per litre on high priced days it reduced prices by 0.7 cents per litre on low priced days. So that means that even bargain hunters were better off. This appears to be all about competition rather than about the petrol price cycle per se. To be clear, what the ACCC found was that Perth drivers saved 0.7 cents per litre relative to what they would have paid if FuelWatch had not been in place. To get at this properly the ACCC analysed Perth prices benchmarked on eastern capital prices which was the appropriate thing to do in order to take into account any macroeconomic effects.

That said, the ACCC did not find conclusively that FuelWatch in WA lowered petrol prices. What the ACCC did is make a far more rigorous investigation of the WA scheme than anyone had ever done and had concluded that the introduction of the scheme was associated with a 1.92 cent per litre average price fall. But there were caveats such as the difference between eastern capitals and Perth, the lack of data going back prior to 1998, difference in fuel standards, transport and port charges were not explicitly modeled and other factors driving

price margins in Perth contemporaneous to the changes in their petrol regime. All these were explicitly laid out in the ACCC report.

There has been plenty of debate regarding whether the ACCC's analysis was proper and rigorous. However, I note that no other interested party or independent one has conducted a similar analysis since the ACCC's report was released. One major issue is that the data the ACCC used is commercial-in-confidence and requires permission of petrol companies to be released. My understanding is that that permission has not been given. Hence, there has been no analysis conducted to verify the ACCC's findings.

Nonetheless, as a policy FuelWatch has undergone more measurement and evaluation than so many others that is implemented. Given the theoretical ambiguities this is critical. But the analysis lends us considerable confidence that, at the very least, implementing FuelWatch would not do harm to consumers or the industry.

The Policy Options

Despite this econometric investigation, it is often forgotten that the ACCC was cautious in their recommendations. Quoting from their conclusion:

> Assessing any system in the style of FuelWatch that incorporates increased price information and price commitment requires great care due to the potential for anti-competitive as well as pro-competitive benefits. Although the inquiry gained a preliminary assessment of the impacts in Perth from the scheme, it is clear that a case–by-case approach is required to assess the potential impacts on competition of any similar scheme. In particular the ACCC has not analysed the application of such a scheme to rural and regional areas. Apparent extra considerations here include the increased potential for anti-competitive effects due to the more concentrated nature of the market, the extra cost in initialisation, administration and compliance and how to decide which areas to cover. In summary, there are potential benefits and potential costs of adopting a national price commitment arrangement that need to be carefully considered.

The other options to increase price transparency have only briefly been considered in the time available for the inquiry. **This suggests that there is scope for more investigation as to what the best policy model is**.

One option is, of course, to hit on the potential issues of soft competition by **strengthening our price fixing laws** to prevent information sharing between competitors. The ACCC indeed, did explicitly call for such strengthening and laid out a very detailed argument as to why this was of particular relevance for petrol retailing.

Another option would be to **relax the requirement that petrol stations fix prices**. That said, one thing to note is that such requirements are not unprecedented in Australia. For example, our entire wholesale electricity market operates in a very similar manner. In that market, there is a single customer — a system operator — who solicits bids from generators 48 hours in advance and with only limited room for adjustment after that. Generator bids are fixed for 30 minutes at a time. Moreover, prices are provided every 5 minutes and bid information is provided to everyone the next day. (It used to be only to generators but thankfully that rule has been removed). It is a regulated, financial market with constraints operating very similar to those that will be in place for FuelWatch.

There is a question, however, as to why prices should be fixed for a full 24 hours? It appears that the National scheme has this requirement was because this was what was done WA and we have been able to evaluate the impact that scheme. That is a solid reason, but is it good enough? After all, the WA scheme can be improved upon. Moreover, there is a good theoretical reason why 24 hours is a long time: petrol stations like to change their prices over the course of the day. In addition, by adhering to 24 hours, we cannot do things like asking retailers to fix prices but for decreases as they would all end up nominating a high price and not, in effect, fixing anything.

There are other options. For instance, we could require petrol outlets to announce a price and upload it to the government's information repository. They then have to not increase that price for an hour. Whenever the station changed its price it would send it in to the authority who would post it. Other than that if the minute handed passed 12, it would be presumed that the current price could not be increased for the next hour. This would make enforcement possible but also allow for intra-day prices changes. From this perspective, there other options other than a 24 hour price fix.

One critique of this shorter arrangement is that it may make it difficult to plan their fill-ups. I am more optimistic about the path and availability of information technology to motorists. Indeed, I think that a simple information requirement with no additional constraints on whether or not prices are fixed for a period of time is within our technological reach. (I sketch such an arrangement in Box 1).

Box 1: A Possible Solution?

If communications technology was ideal (as it pretty well is or at least will be within a year or two), what would be the ideal system for consumers?

A possibility is this: a driver is setting out or driving around and wants to find the best petrol price. They send a request (from a computer or mobile phone) to the FuelWatch website that gives their location, their destination, the degree to which they will deviate from an optimal route and the time frame upon which they would like price offers. Then, the site would give them a series of prices and locations that will be fixed (capped) for the time frame they have nominated. The driver, then chooses a petrol station and can make a purchase at that price.

So what does this require of the petrol stations? First, they have to upload their prices (something they are doing anyway). Moreover, they have to be contingent prices based on the time frame a driver might want them fixed for. So a station could offer a 169 cent per litre offer if the driver wants it fixed for 30 minutes but possibly a different price if they want it fixed for some other length of time. There is no reason why the price offers should not be for arbitrary lengths of time up to 24 hours.

Second, petrol stations could change these price offers at any time. However, this means that if they raise their prices they still have to honor offers made to consumers for fixed periods that cover this.

The end result of this would be to dramatically reduce the cost of searching for the best deal but if consumers chose not to search, it could well be that they end up paying more. But the option is there.

However, admittedly, there is a risk to these schemes and one would like to trial various ones and observe their outcome.

There is another critical issue that is of relevance. By putting in place a FuelWatch scheme, this might stifle innovation within the industry as to different ways of providing information to customers. This concern should not be treated lightly.

Conclusion

The National FuelWatch scheme should be explicitly regarded as a work-in-progress. While it can safely be rolled out in capital cities, the option to improve the system should remain and its structure should be revisited -- including an econometric investigation -- in 2 years. In addition, we should trial alternative systems in regional areas and evaluate them.

The process by which we put in place policies of this kind is becoming increasingly important. We have similar policies being considered in groceries and child care. And there is scope for a greater use of information technology to provide consumers with price and non-price information. Overall, considering the mechanisms by which we can do this is a positive direction.