

# Submission to the Review of the Retail Grocery Industry (Unit Pricing) Code of Conduct

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## Executive summary

This submission represents the views and summarises research results obtained by several Australian academics who conduct research into unit pricing in Australia. The document refers to published academic studies on the topic and the views of the academics based on experience researching how consumers use and may benefit from unit pricing.

Key points include:

- Unit pricing is a very useful consumer tool that allows shoppers to save money and time and make better-informed decisions regarding their grocery selections. Evidence suggests this occurs even in situations where some might argue the unit price would be less relevant or could be distracting. Research conducted in Australia since the introduction of the Code suggests high usage rates, which are considerably greater than what has often been reported in research in other countries. As such, the Code should remain in place in Australia and be strengthened to keep facilitating informed consumer choice.
- Current practice in presenting unit price information could be improved. Improved layout of unit price display could help more consumers to locate and use this information, especially those who may be less inclined to actively look for price information but who would benefit from giving it greater consideration.
- The current code only covers grocery retailers of certain size and type. Other retailers not currently required to display unit prices (e.g., pharmacies, pet stores, and smaller grocery stores) however, can often sell the same products. This can result in consumers having difficulty identifying the better value product when shopping at those retailers, or seeking to compare across retailers (e.g., different pack sizes within the same brand; and dissimilar pack sizes of comparable product across different brands). Other retailers should therefore be encouraged to also provide unit prices in order to facilitate more informed consumer decisions, and allow consumers to make comparisons across different retail types (e.g., buying vitamins in supermarkets vs in pharmacies). Similarly, consumers will benefit if smaller grocery stores such as smaller supermarkets and convenience stores and also larger stores selling only limited lines of grocery items provide unit pricing.
- Consumer education about how to use unit pricing is critical, and should be considered for inclusion in the Code. Provision of unit pricing in-store and online is important, but it is essential that consumers are made aware that it exists, where they can locate it, and how to use it. Consumer education may be particularly valuable for encouraging usage across *all* demographics, including those who might be unsure of its purpose, or how it works.

The following pages contain responses to specific questions posed in the Discussion Paper (note some questions are omitted due being beyond the scope of the studies reported). Some of the research evidence presented has also helped to inform the recently released International Standard, ISO 21041:2018, *Guidance on unit pricing*<sup>1</sup>.

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<sup>1</sup> Available at: <https://www.iso.org/standard/69727.html>

**QUESTION 1: Has the Code helped consumers make informed decisions when purchasing grocery items and improved price competition? How so?**

There is substantial evidence from academic and consumer studies on benefits resulting from usage of unit prices, and the impact of unit price on consumer grocery choices. This evidence includes a number of very rigorous studies conducted in the Australian context since the introduction of the Code. Below are some notable examples.

**Study 1: Bogomolova, S. and Jarratt, I, (October 18, 2016). "Unit pricing in supermarkets: Review of past evidence from academic and industry studies".**

Available at SSRN: <https://ssrn.com/abstract=2853977> or access from: <http://dx.doi.org/10.2139/ssrn.2853977>

**Relevant findings:**

This review article summarised and consolidated academic research on unit pricing, together with research by a number of other organisations on the topic, and was used to inform work toward the recently published International Standard, ISO 21041:2018, *Guidance on unit pricing*. The review highlights that:

- There is considerable variability in usage of unit price as reported in various studies from countries around the world such as the US and UK (from about 30 to 70% of consumers report using it at least some of the time).
- In Australia, since the introduction of the Code, studies conducted with Australian shoppers (Choice 2011; Bogomolova & Louviere 2012; Yao and Oppewal 2016) have found a majority of consumers report using unit prices, in proportions notably greater than those of other countries (around 70-80%).
- Main benefits of using unit price, as reported in the studies include:
  - The ability to save money on groceries (e.g., by switching to cheaper alternatives);
  - Improved accuracy, speed and ease of decision-making;
  - Better price recall, facilitating more well-informed decisions.
- Main barriers for unit price usage include:
  - Consumers relying on non-price perceptions in making purchase decisions (e.g., quality alone), and finding unit prices difficult to use;
  - Cost of provision by retailers;
  - Lack of prominence and accuracy in unit price provision.

**Study 2: Bogomolova, S., Oppewal, H., Cohen, J., and Yao, J (accepted October 2018). "How the layout of a unit price label affects eye-movements and product choice: An eye-tracking investigation," *Journal of Business Research*.**

Available at:

<https://www.researchgate.net/publication/328635269> How the layout of a unit price label affects eye-movements and product choice An eye-tracking investigation or access from: <https://doi.org/10.1016/j.ibusres.2018.10.049>

**Relevant findings:**

This research involved a volunteer sample of 200 Australian shoppers who were invited to a lab to conduct a simulated shopping task using realistic product displays while their eye-movements were being tracked. It revealed that:

- An improved layout of the unit price information on a price label (a combination of larger font size, yellow highlighting, closer proximity to selling price and words 'unit price') attracts higher visual attention (60 percent more 'fixations' on the unit price) during a consumer's product selection from a category than when the unit price information is presented in a

standard layout (as a 'standard' the authors used a real-life price label from one of the leading Australian grocery retailers).

- Further analysis showed this increase in attention is mostly due to the effect of colour highlighting of the unit price, not font size or the location on the price label. Halfway through the shopping task the position of the unit price was changed but this had no effects on attention.
- An increase in attention gained from improvements to the layout does not directly result in choice of cheaper unit priced options. The study showed no significant changes in product selection decisions. This demonstrates the relatively small, though still relevant role that unit prices play in the decision process compared to other factors influencing consumer choice, including brand, taste, pack size and quality preferences. Despite this relatively small role, the improved display of unit price helps consumers to better notice the relevant information and so assists them in their decision making, even if it does not automatically lead to changes in choice behaviour (for further details of benefits see other studies reported in this review).
- Less price conscious consumers show the greatest responsiveness to layout improvements but these improvements do not result in changes in purchase decisions. Moreover, their attention wanes after repeated exposure to the improved layout, suggesting these consumers can choose to ignore the unit price information once they have experienced it. This indicates that consumers can quickly adapt to variations in the choice environment and learn what information is most relevant to them. This also means they are not hindered by the presence of unit pricing.
- In contrast, consumers who are highly price conscious do not respond to variations in layout. Their choice behaviour is instead influenced by the presence of unit pricing and so it is important to them that unit price information is available.
- The combined findings suggest that different types of consumers can all benefit from the presence of unit prices and that all can benefit from an improved layout, but also that consumers are adaptive and will find the relevant information if they want it.
- The study did not specifically include or analyse groups that may be more dependent on having access to appropriately formatted unit price information, including people with poor eyesight, and groups who lack knowledge and experience and so may need better instruction and education, such as younger consumers or recent migrants from countries without unit price legislation.

**Study 3: Weeks, C.S., Mortimer, G.S., and Page, L. (2016). "Understanding how consumer education impacts shoppers overtime: A longitudinal field study of unit price usage," *Journal of Retailing and Consumer Services*. 32, 198 – 209.**

Available from: <https://www.sciencedirect.com/science/article/pii/S0969698916301394> or access at: <https://doi.org/10.1016/j.jretconser.2016.06.012>

#### **Relevant findings:**

As part of this research, 302 Australian shoppers took part in a 20-week longitudinal field experiment, to examine the impact of consumer education about unit pricing. Shoppers were randomly allocated to one of three experimental groups: One group received weekly educational information about unit pricing for the first five weeks of the study (high intensity consumer education), a second group received fortnightly educational information about unit pricing for the first ten weeks of the study (low intensity consumer education), and a third group received no educational information (control group). Approximately 15,600 grocery receipts were collected from the shoppers and their longitudinal spending patterns analysed. Results showed:

- Control group shoppers who received no consumer education about unit pricing tended to spend approximately the same amount per item across the full 20 weeks of the study.

- Shoppers who received consumer education about unit pricing (both high and low intensity groups) progressively reduced their average spend per product for the first six weeks of the study, while receiving educational material. By the sixth week of the study, average spend per product for these shoppers was about 17-18% lower than at the start of the study. This gradually drifted back to around 11-13% by the end of the study, which is a considerable amount of savings for shoppers. The results highlight the critical importance of not just providing consumers with unit price information, but also supplying consumer education to instruct them on how it should be used, and to encourage usage.
- Whereas past research has suggested that unit pricing is not used well by shoppers in lower income brackets, this study showed that when educated about how to use it, shoppers in *all* income brackets made effective use. Shoppers from low (under \$50,000), low-to-moderate (\$50,000 to \$75,000), moderate-to-high (\$75,001 to \$100,000), and high (over \$100,000) income brackets were all shown to display considerable unit price savings when educated about how to use it.
- Additionally, the research showed that if shoppers were provided with feedback on their expenditure, savings could be significantly enhanced (20-21% at Week 6 of the study, and 12-15% by the end of the study).
- The results of this study helped to motivate a recommendation for the inclusion of Consumer Education being incorporated into the recently published International Standard, ISO 21041:2018, *Guidance on unit pricing*.

A recent nuanced analysis of this data has revealed that although shoppers who were educated about unit pricing were spending less per item, they were not simply driven to buying the cheapest item (Mortimer and Weeks, *working paper*). This is a finding that should help allay concerns of retailers and manufacturers. Additionally, it showed that although shoppers were ‘saving’ money through using unit prices to inform their purchases, they appeared to be using this money in-store to purchase more products. That is, overall total weekly spending remained at a similar level for each of the experimental groups across the 20 weeks of the study, with shoppers tending to buy more products with the money saved. For consumer educators, this suggests that rather than just touting ‘savings’ as a benefit of using unit prices, there may also be value in highlighting that it allows shoppers to purchase products they would otherwise not be able to purchase – something that may be particularly useful for shoppers on tight budgets.

**Study 4: Yao, J. and Oppewal, H. (2016). “Unit pricing matters more when consumers are under time pressure,” *European Journal of Marketing*, 50 (5/6), 1094-1114.**

Available from:

[https://www.researchgate.net/publication/304607541\\_Unit\\_pricing\\_matters\\_more\\_when\\_consumers\\_are\\_under\\_time\\_pressure](https://www.researchgate.net/publication/304607541_Unit_pricing_matters_more_when_consumers_are_under_time_pressure) or access at: <https://doi.org/10.1108/EJM-03-2015-0122>

#### **Relevant findings:**

A study among a sample of 225 Australian shoppers from across the population through an online panel showed how in a simulated grocery shopping task:

- Shoppers who had access to unit pricing chose the better value (lower unit priced) product significantly more often than those who did not have access to unit price information (57 percent versus 49 percent).
- There was no difference in product choice between settings where all product options were presented in 100mg/ml units and where they were presented in litres or kilograms as units.
- 78 percent of this sample reported they already knew about unit pricing and how it works before participating in the survey (noting the sample was broadly representative although displayed a skew towards more highly educated consumers, with 65 percent holding a university degree).

A study extension among 122 additional shoppers from the same panel examined when shoppers are under time pressure:

- When there was no time pressure shoppers were able to complete their shopping task more quickly when unit pricing was available than when there was no unit pricing (when they were under time pressure completion times did not differ).
- When there was time pressure, the effect of unit pricing on choice increased such that more shoppers selected the lower unit priced product.
- The presence of unit pricing resulted in an improved consumer perception of the shopping task, indicating that consumers perceive significant benefits of unit pricing, regardless of whether they are under time pressure or not.

**Study 5: Yao, J. and Oppewal, H. (2016). "Unit pricing increases price sensitivity even when products are of identical size," *Journal of Retailing*, 92 (1), 109-121.**

Available from:

[https://www.researchgate.net/publication/282249263 Unit Pricing Increases Price Sensitivity When Products are of Identical Size](https://www.researchgate.net/publication/282249263_Unit_Pricing_Increases_Price_Sensitivity_When_Products_are_of_Identical_Size) or access at:

<http://dx.doi.org/10.1016/j.jretai.2015.09.002>

#### **Relevant findings:**

This study involved a sample of 130 Australian shoppers recruited from across the population through an online panel. It showed through a simulated grocery shopping task in which the product volumes were constant (so the prices could be deemed as easily comparable even without unit pricing):

- Even in these conditions the presence of unit pricing still provided consumer benefits as respondents found the shopping task easier to complete when unit pricing was present.
- The study also showed that the presence of unit pricing increases shoppers' motivation to select cheaper products. This effect was stronger for respondents with lower levels of price consciousness, so for those who are less concerned about price the presence of unit pricing can act as an additional reminder of the cost of the product.

A study extension among 56 students who completed a shopping task in an experimental lab showed that because the presence of unit pricing makes shoppers more price sensitive, it makes them also more likely to buy a discounted product.

#### **QUESTION 2. If the Code is not remade, what implications would this have on the application of unit pricing in Australia?**

Many other developed countries adopted a unit price code much earlier than Australia and have continued using it, along with many other consumer protection initiatives. Not continuing the code would put Australia behind these other countries in terms of consumer protection. Not continuing the code will also result in a less consistent and more fragmented implementation of unit pricing and provide retailers more opportunity to obfuscate price differences, resulting in consumers being more confused and making less optimal product decisions. The research outlined above indicates high awareness and high reported usage of unit pricing in Australia following introduction of the Code, in proportions that are greater than in other countries. It would seem regressive to discontinue the code, and this would risk the benefits that have been achieved so far in Australia.

**QUESTION 4. Have there been any changes in the structure of the market influencing the effectiveness of the Code?**

Online grocery shopping still only accounts about 3-4% of the grocery market in Australia, with the vast majority of grocery shopping done offline (in bricks and mortar stores). Nevertheless the online channel is growing and major online grocers have already included unit prices in their online offering. This should continue and be extended. Consistency in provision of online and offline allows consumers to more easily find and use unit prices and compare products across channels. Early research by Russo (1977)<sup>2</sup> suggests that unit prices presented in a list format (similar to the way online retailers might display products and their unit prices) can often be more useful for consumers and lead to greater savings compared to unit prices on shelves. Thus, effective unit price regulation in the online space is important, and the same requirements should apply to both online and offline retailers. Efforts should be made to increase compliance in the online environment.

**QUESTION 5. Are there any refinements that could be made to ensure ongoing efficiency and effectiveness of the Code, while also improving outcomes for consumers?**

It may be informative to consider recommendations from the recently published International Standard, ISO 21041:2018, *Guidance on unit pricing*, where these are suggestive of improvements beyond what exists in the Code. For example, the International Standard provides a recommendation to implement periodic consumer education programs to help teach people about unit pricing, but also periodically remind consumers of its value to encourage ongoing usage. The International Standard also provides guidance on the need to consider various display characteristics that can help to enhance consumers' ability to notice, read, and understand unit prices. These include ensuring unit prices are displayed in close proximity to the item selling price (below or adjacent), using a clear font type that is as large as practically possible, and more prominent than store information such as item codes, to avoid confusing consumers. It suggests that unit price display should seek to maximise contrast by using black text on a white background, or perhaps a colour background to enhance noticeability, with the words "unit price" adjacent. Adequate white space on labels is noted as useful for improving noticeability, or otherwise boxes/borders to ensure shoppers can notice. It notes the importance of unit prices being non-ambiguous on labels, and recommends consistent use of presentation principles on all labels within a store and across stores to help facilitate usage.

Of note however, please see reply to Question 1 regarding results from research projects: Enhanced legibility and consistency are not expected to result in major changes in consumer choices but will make it easier for them to make decisions and so provide additional consumer benefits.

**QUESTION 6. Is the current principles-based approach still appropriate for displaying unit prices?**

There is merit in keeping the principles-based approach, retaining reference to prominence can be sufficient. More important than exact measures or font prescriptions is that the unit prices are displayed in a consistent way so that product prices are easy to compare, as noted in the research summaries outlined in the response to Question 1.

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<sup>2</sup> Russo, J. E. (1977). "The value of unit price information," *Journal of marketing research*, 14(2), 193-201. Available at: <https://www.jstor.org/stable/3150469> or access at: <https://doi.org/10.2307/3150469>

**QUESTION 9. Is the minimum range of goods that must be sold in order for the Code to apply still fit for purpose? Is the list of items currently exempt from the Code still appropriate?**

There is currently limited research into unit pricing in other forms of non-grocery retail. Yet, it is logical to suggest that if other retailers sell the same product categories (and often the very same brands) as supermarkets, consumers and retailers in these categories can also benefit from the introduction of unit price provision.

Specifically:

- Convenience stores: These often sell exactly the same items as supermarkets, including essential food items;
- Pharmacies: Especially for over the counter products, such as vitamins, supplements, health care supplies, beauty products etc. – the very same items that are already sold in supermarkets, where they are subject to unit pricing;
- Pet supply stores: Especially for pet food items, these often have a range of pack sizes for the same brand, and different brands of similar (but not always directly comparable sizes). These are exactly the situations where consumers could find the unit price very useful to assist with comparison. Again, these products (pet food) are already sold in supermarkets with the unit price provided.

Importantly, the provision of unit pricing in these other retailers who sell the same products and brands will allow consumers to make price comparisons not only within the store, but across stores, and across retail chains and types. This will help consumers to make more informed choices, not just in front of a shelf, but also when deciding from which store to purchase.

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