Annexe C

Harm and efficiencies
Introduction

C.1 The OFT’s study into the Advertising of Prices focused on six advertising practices: drip pricing, reference pricing, bait pricing, complex pricing, volume offers, and time-limited offers. The study has also looked at some aspects of price comparison sites as well as the use of the word 'free' in price promotions.

C.2 The OFT believes that price advertising and price promotions can be highly beneficial to consumers when they convey valuable information, thus reducing search costs. In particular, there are a number of efficiencies resulting from genuine advertising of prices. These include: allowing consumers to find a good bargain (for example, with the use of reference pricing, volume offers and time limited offers), facilitating the promotion of a new product (for example, with the use of the term 'free') and helping consumers to find a better match between product attributes and their own preferences (for example, with the use of partitioned and bundled pricing).

C.3 The analysis of these efficiencies resulting from genuine advertising of prices is beyond the scope of the discussion in this annexe. However, we argue that, ultimately, these efficiencies are lost when the use of advertising practices is misleading, that is, when consumers' purchasing decisions are distorted.

C.4 The main objective of this annexe therefore is to understand how consumers are affected by the misleading advertising of prices and to explore whether this may result in consumer detriment.

C.5 Consumer detriment might include: paying a higher price or buying a less suitable product than was otherwise available; purchasing a higher quantity than is normally preferred; wasted time; withdrawing from the market due to confusion; or other 'emotional' factors such as frustration or annoyance.

C.6 In the next section we set out the way in which different price frames may mislead consumers and how consumer harm may
manifest itself as a result. In particular we discuss how adverts might be aimed at inflating consumer willingness to pay\(^1\) for a good or service by suggesting an offer for a product is better than it really is, and/or by concealing or obfuscating the final price. We call these theories of harm (ToHs).

C.7 Section 2 sets out how the misleading use of price framing to inflate consumer willingness to pay is typically an unfair response by less efficient traders to intense competition.

C.8 Sections 3 to 10 explain in detail each pricing practice and set out our hypotheses regarding the likelihood and extent of any consumer benefits and harm/detriment arising from the different manifestations of these pricing practices.

Framework for analysis

C.9 Before we consider specific adverts and specific pricing practices, we need to explain what we mean by consumer detriment and how misleading advertising of prices may result in consumer detriment. The question we need to consider is whether and how consumers’ transactional decisions would have changed if they had been aware of any misleading pricing practices\(^2\).

C.10 In this section we consider first how advertising of prices may adversely affect consumer decision making. In particular we discuss how adverts might be aimed to inflate consumer willingness to pay and/or to conceal or obfuscate the final price from consumers. The two effects are not mutually exclusive - an advertising practice may well affect consumer decision making through both channels.

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\(^1\) The willingness to pay is the maximum amount a consumer is prepared to pay for a good or service.

\(^2\) It is worth noting that even if the pricing practice did not cause a consumer to take a different transactional decision or otherwise affect their economic behaviour it may nevertheless constitute a breach if it falls within one of the banned practices in Schedule 1 of the CPRs.
We then go on to consider the types of detriment which may arise from misleading adverts. In particular we distinguish between shopping errors and emotional detriment. We also set out some of the parameters we consider relevant to determining how detrimental a specific advert may be, specifically: frequency of purchase, the ease of cross market comparisons, the ease with which consumers can verify product quality, the expense of the item and reasonable consumer expectations. Finally, we discuss the extent to which misleading advertising of pricing can generate efficiencies for sellers and whether these can be beneficial to consumers.

Theories of harm

To analyse the likely effects of the use of misleading advertising of prices it is useful to start by examining the role of advertising in general. Broadly speaking, there are two main types of advertising: informative advertising, which conveys information on the existence of traders, their products' prices and quality attributes; and persuasive advertising, aimed at raising brand awareness and loyalty.

Both types of advertising are aimed at expanding the demand for the firm's product or service, but theory suggests they have different effects on competition:

- informative (price) advertising tends to intensify price rivalry between firms. As a result of price advertising consumers are more alert and receptive to prevailing market prices and therefore the demand for the firm's product or service may become more elastic, whereas

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• persuasive (brand-building) advertising tends to lower price rivalry by encouraging brand loyalty. As a result, demand for the firm's product or service may become more inelastic. This does not mean that persuasive advertising is necessarily detrimental to consumers, since it can be used to signal high product quality to consumers who would otherwise find this difficult to discern before purchase. This is because traders of high quality products may be more likely to invest higher advertising expenditures than traders selling low quality products.

C.14 Informative (non-misleading) price advertising has a clear pro-competitive role as consumers benefit from more intense price competition.

C.15 Brand-building advertising is an expensive way to increase demand for a product while reducing consumers' price sensitivity. Misleading advertising of prices may constitute a lower cost way of reaching the same outcome:

• The misleading use of advertising of prices may lead to an expansion of demand for the firm's product, by suggesting the deal the consumer is being offered is better than it actually is.

• Furthermore, it might also make demand more price inelastic if, as a result, affected consumers are less aware of, and responsive to, prevailing market prices.

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4 This may not be the case for advertising campaigns aimed at building a 'best value' brand. However, this type of brand building activity is best described in terms of informative (price) advertising although referred to a corporate brand rather than a specific product line.

5 See Nelson, P. (1974), Advertising as Information, Journal of Political Economy, 82, 734 ('Advertising increases the probability of a consumer’s remembering the name of a brand. Those brands with the highest probability of repeat purchase have the greatest payoff to improved consumer memory. In consequence, brands which provide the highest utility have the greatest incentive to advertise').

6 See Armstrong, M. (2008), Interactions between competition and consumer policy, OFT991, at para. 3.2.1.
C.16 In addition to the impact on consumers, misleading advertising of prices may also have an adverse impact on businesses who do not engage in such practices if, as a result, consumers become less alert and receptive to their genuine offers.

C.17 In general the distortion of the consumers' transactional decisions occurs because of the way advertised prices are presented (framed). That is, firms choose both how to price their product and how to frame their prices, which affects consumers' ability to understand and compare the offers.

C.18 Frame-dependence represents a departure from classical economics, which has considered consumers to be fully rational, with infinite capacity to take in, process and compute information. Rational consumers are fully able to predict their future needs and take them into account when making decisions ('homo economicus' rather than simply 'homo sapiens'). That is to say, according to this approach the way prices are framed should bear no influence on consumers' decision making.

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7 This is because price is a search attribute where the buyer can in principle resolve the uncertainty regarding prices before purchase by simple inspection, although at a cost (that is time). This is opposed to experience attribute, where the buyer can only resolve uncertainty after purchase (for example, that the leather in a pair of shoes is fit for wear). In other words, a search attribute is any aspect of a product which is publicly accessible, whereas an experience attribute is only privately accessible through consumption. A third category is that of credence attribute, where the buyer cannot directly resolve uncertainty even after purchase (for example, green credentials in a manufacturing process).

8 See Rubinstein, A. and Y. Salant (2008),.(A,f): Choices with Frames,,Review of Economic Studies.75, 1287-1296 ('A frame consists of observable information that appears to be irrelevant to the rational assessment of the alternatives but nonetheless may affect choice').

However, evidence from the psychology literature review, as well as anecdotal observation, indicates that in real-life situations an individual's behaviour often depends on additional observable information, which would be irrelevant to the rational assessment of the alternatives. We discuss two main theories about how harm to consumers may occur as a result of the misleading use of price framing:

- inflating consumer willingness to pay for a good or service by suggesting an offer for a product is better than it really is. For example, fake reference pricing or using time limited offers to encourage consumers to buy now, and
- concealing or obfuscating the overall price paid for a good or service. For example, through hidden or opaque charges such as using drip pricing.

Each theory of harm (ToH) differs in terms of the underlying economic conditions and the dynamics triggered by the misleading use of price framing. Nevertheless, the two ToHs can both be at play with respect to the same practice. We now analyse each ToH separately to explore the specific underlying economic circumstances and dynamics.

**Inflating consumer willingness to pay**

As explained above, traders may decide to use misleading price framing when advertising their prices in order to inflate consumer willingness to pay for the product or service and expand sales whilst making demand less price elastic. The magnitude of these detrimental effects depends on the proportion of targeted prospective buyers who are misled into thinking that the price advertisement is reliable.

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C.22 To understand how consumers can be misled in this way it is helpful to consider elements of psychology. Research suggests that price framing may lead to systematic biases in the way ordinary people make decisions. In particular, there are behavioural biases that may be triggered (and, thus, exploited) in response to the way prices are framed, most notably:

- **anchoring and adjustment**, which suggests that buyers assess an offer by starting with a reference point and then making adjustments as further information is considered. In general people tend to focus too heavily on the reference point and make insufficient adjustments when the overall price changes from that reference, therefore underestimating the total cost.

- **loss aversion and endowment effects**, where people place a higher value on something they own, or imagine they own, and therefore demand more to give up an object then they would be willing to pay to acquire it, and

- **omission bias**, since people are more sensitive to losses than gains, they may be afraid to take actions in case they incur losses as a result.

C.23 Evidence shows us that not all consumers will be subject to these behavioural biases when making a purchasing decision; some are more circumspect and suspicious of price framing. For example, consumers may check whether a reference price indeed corresponds to the prevailing market price. In such cases consumers may simply ignore the use of price framing when making their purchasing decision.

C.24 By contrast, if consumers are influenced by the way the information is presented and are misled into considering that the deal being offered is better than it is they will reduce the extent to which they shop around for the 'best' deal. In other words, in an attempt to boost sales a firm tries to increase consumer willingness to pay and
so stop consumers from visiting another shop (corresponding to the
tist effect identified in paragraph C.15).\textsuperscript{11}

C.25 If consumers do not shop around price rivalry among competitors is
reduced (that is, the second effect identified in paragraph C.15). The
high prevalence of price framing used in the advertising of prices
suggests that, whilst retailers are normally unable to tell whether a
prospective buyer will believe the price advert is reliable, there are
sufficient consumers who are susceptible to price framing to make it
profitable for traders to use. The reduction in price rivalry between
firms depends on how many consumers are suspicious of price
framing and continue to shop around. We would expect that as the
proportion of suspicious customers rises the level of competition
between rival traders would also increase thereby reducing a firm’s
ability to raise prices. When this occurs the sophisticated, or
circumspect, consumers help protect those consumers who are more
susceptible to price framing.

C.26 Even when there are consumers who are sceptical about price frames
some consumers will still be misled by the adverts. These consumers
are still at risk of over-consumption, to the extent that they are
induced to buy too much, or to pay too much relative to their
(unbiased) willingness to pay for it.\textsuperscript{12}

\textsuperscript{11} See the original contribution of Herbert Simon in 1955, where consumers are described as
‘satisficing’ (as opposed to ‘maximisers’) in that they shop around until they find an offer
that provides them with at least some aspiration value level: see Simon H. (1955), A

\textsuperscript{12} In this sense, this misleading use of price framing can be thought as a form of indirect
price discrimination. Price discrimination strategies can be categorized as direct or indirect -
which depends on the extent to which consumer heterogeneity is observable. Direct price
discrimination arises when price discrimination is based on some observable demand-related
characteristic (for example, location, age group, etc.). In contrast, indirect price
discrimination arises if consumer heterogeneity is not directly observable and traders need to
rely on self-selection mechanisms to indirectly separate consumers (in this case, gullibility).
For a detailed analysis on different types of price discrimination, see Stole, L. (2007), Price
Discrimination in Competitive Environments, in Armstrong, M. and R. Porter, eds., \textit{The
C.27 For some types of purchases a consumer may behave in a relatively sophisticated manner whereas the same consumer on another occasion, for example due to lack of time or understanding of the product, may behave in a more naive manner and be more susceptible to the misleading use of price framing.

C.28 Some consumers who are misled by price advertisements will realise their mistake and learn to discount similar adverts in the future. This means that for some products the number of consumers who can have their willingness to pay increased will fall. Learning is discussed in more detail in Chapter 10 of the main report.

C.29 In the extreme, if all consumers were to distrust the use of price frames that draw on the behavioural biases outlined in paragraph C.22, the detrimental effects described above would not materialise, as all adverts would be ignored and would not affect the way in which a consumer searched for the best deal.

C.30 It is important to note that even in this extreme scenario consumer harm may still arise as a result of consumers not trusting reliable price advertising. Reliable advertising would have benefited consumers by reducing their search costs and therefore increasing pricing rivalry (see reference to informative price advertising at paragraph C.13).

C.31 The use of misleading selling techniques in an attempt to inflate consumer willingness to pay is not without risk for traders. It may negatively impact on the trader's standing (and thus reputation) in the eyes of circumspect consumers. Circumspect consumers may use a misleading pricing practice as a proxy for judging whether the retailer will try and mislead them in other ways or the likelihood of being 'cheated' by the trader. This may mean that circumspect consumers refrain from purchasing from the trader altogether, instead of simply ignoring the misleading price frame but still considering whether to make a purchase. If this occurs then traders will lose the custom of some, or all, circumspect consumers.
C.32  At the extreme, this might lead to a situation where unfair traders specialise in targeting persuadable buyers via misleading pricing and, thus, overcharging them since they no longer are constrained by the prospect of selling to more circumspect consumers as well. Because circumspect consumers are able to understand correctly the misleading pricing practice they are able to judge how good the offer actually is. Circumspect consumers will not purchase unless it is a good deal (even if it is not as good as it initially appeared) which means that retailers have to offer a good deal in order to sell to circumspect consumers, as well as more gullible consumers.

C.33  If circumspect consumers do not consider a particular retailer at all then that retailer has already lost the potential sales to circumspect consumers. Therefore, it does not matter whether the offer is good or not as none of the remaining customers will be able to evaluate the deal properly. This is because the presence of circumspect consumers (who are able to judge whether the offer is a good deal) no longer constrains the offers made by the retailer.

C.34  If this situation arose then you would end up with two types of retailer: those who targeted circumspect consumers and used pricing practices in a legitimate way and those who targeted frame-dependent consumers and used misleading practices. The proportion of misleading and non-misleading firms would depend on the proportion of circumspect consumers.

C.35  The fact that some traders specialise in targeting persuadable consumers by resorting to misleading price framing may be a consequence of intense competition. Less efficient traders fail to attract more circumspect consumers who prefer to buy only from those traders who do not have to rely on these strategies to stay in business.

C.36  In summary, the misleading use of price framing to inflate consumer willingness to pay is typically an unfair response by less efficient traders to intense competition. The presence of circumspect consumers who do not show frame-dependence may mitigate the
risk of consumer detriment due to overcharging, unless they completely refrain from buying from misleading traders.

C.37 If circumspect consumers simply ignore the misleading price frame, but still consider making a purchase from the retailer, these misleading practices may be more common across traders, since traders do not face the risk of losing customers by doing so. This means though that there are no incentives to gain a competitive advantage by refraining from the misleading use of price framing, so the market is unlikely to self-correct.

Obfuscating the overall price paid

C.38 In the previous ToH the use of misleading advertising of prices is aimed at stopping prospective buyers from further shopping around by giving the impression that they have already found a bargain. In contrast, in this second ToH, the use of deceptive price framing is aimed at concealing or obfuscating the overall price. This makes it time-consuming and difficult for consumers to understand exactly what a firm is offering and at what price, and has the effect of raising search costs at the shop being visited.\textsuperscript{13} This implies that under this ToH the use of misleading advertising of prices can affect all consumers.

C.39 Conventional economics has broadly accepted that the assumption that consumers act as prescribed by classical economics is unrealistic. For example, it is accepted that obtaining and processing information can be costly for consumers. Consumers under these models exhibit rational utility maximisation, whilst facing costly computation (so called ‘bounded rationality’).

C.40 Although some consumers may be better able to deal with more complex information than others, the use of price obfuscation practices raises search costs for all consumers.

\textsuperscript{13} In contrast to footnote 11, in this ToH, the circumstance that consumers stop shopping around is not to be ascribed to ‘satisficing’ behaviour, in that they would normally shop around further absent price obfuscation.
C.41 In addition, in those circumstances where the price is made contingent on the level of consumption (for example, as with the use of minima and maxima in the price of on-going services such as mobile tariff plans), behavioural economics suggests that consumers may not be able to fully predict their future needs. This is due to over-confidence (that is, people are likely to overestimate their future usage), or a bias towards the present (that is, people discount future needs). This may cause consumers to make incorrect estimates of the total price charged for the on-going service provision.¹⁴

C.42 From a supply-side perspective, the use of price obfuscation in an attempt to raise consumer search costs may be a risky strategy for traders, in that consumers may simply decide to shop elsewhere where prices are not concealed. In other words, the use of price obfuscation practices aimed at raising consumer search costs makes sense only insofar as it is widespread across rival traders.

C.43 The use of price obfuscation to artificially increase search costs tends to make it harder for consumers to shop around. This is both due to the search costs incurred at the shop being visited, and due to consumers', potentially incorrect, beliefs regarding the expected high costs of, and low benefits from, extra-searching activity.

C.44 An important component of competitive pressure comes from consumers switching between suppliers of goods and services. The combination of price obfuscation and difficulty in correctly predicting future consumption make consumers unable to accurately estimate the total costs of on-going service provision. The lack of clarity might reduce consumers' confidence about the estimated benefits from switching, which is a key determinant of consumer decision to

¹⁴ See Eliana Garcés, The Impact of Behavioural Economics on Consumer and Competition Policy, 6(1) Competition Policy International (on-line), pp. 144-152.
Moreover, consumer inertia might also be the result of omission bias (see paragraph C.22), or simply because consumers tend to choose the 'path of least resistance'.

C.45 Reduced consumer activity due to (artificially induced) search costs leads to reduced pricing rivalry. This corresponds to the second effect identified in paragraph C.15 with market demand becoming more price inelastic because consumers are less receptive and responsive to prices (but with no expansion in demand). In this ToH the reduction in search activity is likely to affect all consumers (albeit there will be differences in the levels of search and thus the way consumers will cope with price obfuscation).

C.46 In contrast to the previous ToH, awareness of the use of framing to obfuscate prices does not spare consumers from the described detrimental effects. Price obfuscation prevents consumers from learning and therefore awareness of obfuscation does not make consumers less susceptible to being misled. This suggests that price obfuscation might persist. Consumers may develop 'rules of thumb' in an attempt to simplify decision making. However, these 'rules of thumb' will not fully prevent consumers from making the same kind of errors of judgment as discussed above with respect to the previous ToH.

C.47 Reputable traders may be able to gain a competitive advantage by investing in a reputation for using clear pricing communications rather than misleading practices. In other words, the widespread use of

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15 In general, in the presence of verification costs consumer expectations regarding the benefits from extra-searching are a key determinant of their degree of activity in the market: see, in this respect, Chang, Y.T. and Waddams Price, C. (2008), Gain or Pain: Does Consumer Activity Reflect Utility Maximisation?, mimeo, CCP, available at ssrn.com/abstract=1114131

16 See page 13, Ahmetoglu et al, 2010, Pricing practices: their effects on consumer behaviour and welfare, Annexe F.

17 As a corollary, traders have the incentives to denounce other traders' obfuscation tactics and win new consumers.
price framing to conceal prices and hamper price comparison may create the opportunity for reputable traders to 'win' the consumers' business by reducing search costs (a pro-competitive effect of informative price advertising).

C.48 In summary, price obfuscation may be a systemic response by firms to tough competitive conditions (for example, because products are close substitutes) that affects all consumers by raising search costs. Therefore, the consumer might lose trust in well-functioning markets and might become resigned to price confusion.

C.49 However, the same frustrating conditions raise the prospect for market self-correction where fair traders differentiate from the rest by presenting their pricing in a clear and reliable way. Therefore, the persistence of the widespread use of price framing to conceal prices may signal the need for market-wide intervention.

**Types of detriment**

C.50 Under both ToHs consumer detriment at an individual level may manifest itself in a number of ways:

- **Shopping errors: financial detriment.** This is captured by the loss in consumer surplus, that is, the difference between what a consumer would have bought and would have been willing to pay and what a consumer actually bought and paid. This detriment arises as a result of action by the firm which means that the consumer’s transactional decision was not based on a full understanding of the actual price or quality of the product or service bought.

- **Shopping errors: wasted time.** The pricing practices used by retailers reduce the ease and benefits of shopping around by making it more difficult to search and compare products. Searching becomes less effective either because consumers are not able to discern the true price of a product or because they need to invest more time in verifying the offer.
• **Emotional detriment.** Consumers may experience stress or frustration due to the increased complexity of comparing offers or from rushing to purchase a product which was either not available or where the end date of the sale was false. Alternatively consumers may experience anger or embarrassment when they realise that the offer presented was not as good as they expected and they have either overpaid or bought too much of a product.

C.51 When firms try to increase consumer willingness to pay or obfuscate prices they raise search costs which may increase the opportunity cost of the purchase,\(^{18}\) potentially above the consumer willingness to pay. If this happens the consumer may decide not to purchase at all which in itself may cause them harm. For example, if the search costs for a savings account are too high then a consumer may not bother to open one and instead leave their money in their current account thereby forgoing the interest they could have earned.

**Industry characteristics that affect the likelihood of detriment**

C.52 The extent to which consumers are likely to suffer detriment will depend on their familiarity with the product or service sold. Below we consider market features which may affect the effectiveness of misleading price frames.

**Frequency of purchase**

C.53 All else being equal the more frequently a consumer purchases a product or service, the more opportunity they have to build up an internal benchmark of price and quality, making them better able to assess the current offer being made to them. Where products or services are purchased infrequently consumers have less opportunity to learn about value and as such may be more susceptible to misleading pricing practices.

\(^{18}\) The opportunity cost of a decision is based on what must be given up (that is, the next best alternative) as a result of the decision being taken.
Evidence shows that although consumers may be poor at consciously recalling past prices, consumers may still learn to better estimate prices and values from repeated price exposures of frequently purchased products such as groceries.\textsuperscript{19}

**Ability to verify quality and compare prices**

All else being equal the better able a consumer is to independently verify the quality of the product or service being advertised, the less likely they are to be misled by the way in which the price is advertised. Consumers face difficulty in detecting quality:

- where the good is an 'experience good', such that the value is difficult to determine until after purchase: for example, books, movies, wine or restaurants, and
- where the good is a 'credence good', such that it is difficult for consumers to assess quality either before or after purchase: for example, legal advice, education, vitamins or car repairs.

Traders can assist consumers in detecting product quality by adopting self-regulatory mechanisms to signal their quality\textsuperscript{20} - for example, by signalling their reputation through independent third party reviews; or adopting codes of conducts. Furthermore, as explained in paragraph C13, a strong brand image may also help consumers to judge quality; for example, brand-building persuasive advertising.

As well as being able to verify quality in some markets consumers will be better able to make cross market price comparisons. This can help consumers verify if an advertisement really offers a good deal and reduces the chance of them being misled.

\textsuperscript{19} See page 37 Ahmetoglu et al, 2010, *Pricing practices: their effects on consumer behaviour and welfare*, Annexe F.

Consumer involvement and expectations

C.58 All else being equal we would expect that consumers who are purchasing products or services which capture their interest are likely to be more willing to invest time in shopping around than they will for low involvement products. Low involvement products entail a higher opportunity cost of shopping around due to consumers' lack of interest in them. Although the degree of involvement in a purchasing decision depends on personal preferences, it seems likely that consumers will be more interested in the purchase of expensive and status goods such as luxury products and high-tech consumer electronics, or products they enjoy such as holidays, and so spend more time searching for a good deal. High level of consumer involvement may improve conscious price recall.

C.59 On the other hand, consumer involvement in the purchasing decision may increase consumers' susceptibility to the endowment effect, that is, consumers desire to own a product increases once the purchasing process has started.

C.60 Whilst the risks due to low involvement may be mitigated for repetitive purchases (see paragraph C.54), consumers may be more susceptible to consumer detriment in case of low involvement products that are not frequently purchased, such as utilities.

C.61 Reasonable consumer expectations will also play a role in the possibility of a price frame being misleading. If the majority of consumers are aware of and understand the use of a particular practice, for example, such as whether there are charges for delivery which depend on the detail of a bespoke product, it is less likely that a consumer will be misled by such a practice.

Conclusion

C.62 In sections 3-10 of this annexe we set out each of the pricing practices under consideration in this study. Each practice can manifest itself in a range of ways which may be more or less likely to be detrimental to consumer decision making.
C.63 As explained in paragraph C.20, each practice might trigger one, or both, ToHs. For example, drip pricing may be aimed at both inflating consumer willingness to pay and raising consumer search costs in general. Competition among traders to sell to all consumers indiscriminately will restrain their ability to increase prices.

C.64 In terms of detrimental effects the two TOHs clearly reinforce and compound each other. If the presence of circumspect consumers acts as a degree of prevention against traders raising their prices (see paragraph C.25 with respect to the first ToH), then this is negated by the added search costs all consumers (including circumspect ones) face when prices are concealed (second ToH).

C.65 The incentives for traders to gain a competitive advantage by investing in a reputation for using clear pricing communications - rather than misleading price framing (see paragraph C.47) - might be limited where the misleading practice would lead some consumers to drop out of the market altogether. For example, in the case of drip pricing, if consumers would not be willing to pay the upfront price then the trader with clear pricing will not be able to compete with the traders who are drip pricing and the misleading practice will remain.
The case and the role for potentially offsetting efficiencies

C.66 The ToHs outlined in this chapter are meant to provide an underlying narrative of how the misleading use of price advertising might distort the average consumer’s transactional decision and, therefore, cause consumer detriment. In principle, the extent to which the distortion of the average consumer’s transactional decision results in detriment may be mitigated by offsetting efficiencies. We have only identified one efficiency arising from misleading adverts, that is improved scale economics thanks to a growth in sales.

C.67 The argument that the misleading use of price framing might be beneficial overall in that it allows misleading traders to reach larger scale economies is linked to the first ToH, where misled consumers are at risk of overconsumption (see paragraph C.26).

C.68 The misleading use of price framing to inflate consumer willingness to pay may constitute an attempt by less efficient traders to cope with intense pricing rivalry (see paragraph C.35). In particular, this may apply to all the pricing practices taken into consideration in the following sections, with the exception of complex pricing. It does not apply to complex pricing because complex pricing increases search costs for all consumers due to price obfuscation rather than increasing willingness to pay. This suggests that larger scale economies may indeed be achieved to the disadvantage of (more efficient) traders who do not rely on similar strategies. Under these circumstances, this misallocation towards less efficient firms might also mean that, over time, competition for staying in business is biased against more efficient traders.

C.69 It may be argued that other traders are not deprived of scale economies because the overall volume of sales in the market could be increased. This is more likely to be the case when the misleading use of price framing is common practice across traders (see paragraph C.36 and C.37). This suggests that that lower costs due to larger scale economies may be passed on to consumers in the form of lower prevailing market prices. That is, demand across the
market is not made less price elastic despite the widespread use of misleading price framing (see graphical analysis at paragraph C.74).\textsuperscript{21}

C.70 The assessment of potentially offsetting efficiencies should be based on a comparison against a counterfactual scenario where there is no use of misleading advertising of prices. That is to say, it is far from clear why the distortion of consumer transactional decisions is indispensible to achieve larger volumes of sales. For example, the use of generic 'special offers' to seasonally promote (perishable) groceries that are grown locally may achieve the same volume expanding effect without the need to use misleading price references.

C.71 Furthermore, even if the misleading use of price framing was the only way to increase the overall volume of sales, it is doubtful whether the resulting scale economies would be truly beneficial to consumers. To state such requires the assumption that revealed preferences are the best proxy for consumer true preferences.

C.72 This assumption might not hold in the face of misleading price framing. The use of a misleading price frame might distort consumers' transactional decisions meaning that their revealed preferences do not reflect their true preferences.

C.73 That is to say, although large sales volumes lead to an increase in productive efficiency (due to economies of scale), this might not translate into improved allocative efficiency, to the extent that distorted consumer transactional decisions mean that consumers' purchases are not a reliable proxy for their true preferences.

C.74 This trade-off is represented graphically below, where the yellow rectangle identifies consumer detriment due to over-consumption and the orange trapezoidal area the benefit due to larger scale economies (as represented by the downward-sloping supply curve). This simple

\textsuperscript{21} On the contrary, the case for this type of offsetting efficiency would not even arise with respect to the second ToH, where the widespread use of price obfuscation does not give rise to demand expansion, but only makes market demand more price inelastic.
graphical analysis suggests that consumers would be worse off overall.

Figure 2.1: Consumer welfare impact due to demand inflation with scale economies

C.75 For the reasons stated above, the OFT concludes that it is very unlikely that consumers would benefit from offsetting efficiencies arising from misleading advertising of prices. However, we would consider the scope for supply-side efficiencies on a case-by-case basis.

C.76 It is important to note though that the existence of efficiencies is not relevant to the assessment of whether price advertising is in breach of the CPRs. Any such argument may be taken into consideration for prioritisation purposes.
**Partitioned Pricing**

C.77 Partitioned pricing (also called drip pricing) refers to the practice of advertising a price for a product and adding extra charges during the purchasing process.

C.78 Drip pricing occurs in a wide range of industries both online and offline; examples include a delivery charge, a charge for airline taxes, charging to have a sat-nav in a hire car. In some cases consumers face a single additional charge, such as postage and packaging, whereas in other cases there are multiple charges.

C.79 There can also be a product or service that is compulsory, but where a range of possible options and charges apply, for example a range of payment or delivery options. In some cases there may be no charge for one or more of these options.

C.80 Optional extras can be related to:

- add-ons that allow consumers to tailor the base product or service to better meet their requirements, such as quick delivery, air conditioning in a hired car or extra luggage, or
- goods or services that are complementary to the consumption of the base/primary product that the consumer has a choice to buy from a supplier other than the seller of the primary/base product; for example, ink cartridges, extended warranty or travel insurance.

C.81 Optional extras can be presented using opt-in and/or opt-out boxes. Opt-in refers to those optional charges which consumers have to actively opt-in to (that is, tick a box) in order to include the add-on in their purchase. Opt-out refers to those optional extras which consumers have been automatically opted in to and have to actively opt-out of (that is un-tick a box) if they do not want to purchase/receive the add-on. An add-on may also be presented with no default choice set-up such that consumers have to choose whether to opt-in or opt-out.
The OFT believes, based on the psychology literature review, the behavioural experiment and the consumer survey, that drip pricing has the potential to result in significant consumer detriment.

We consider that both ToHs are at play when drip pricing is used:

- Inflating consumer willingness to pay:
  - endowment effect and loss aversion - when consumers see a headline price and decide to buy a product they subconsciously consider that they own the good ('endowment effect'). Subsequently not purchasing the good is perceived as a loss and to avoid that loss consumers continue with the purchase despite the increase in price as more surcharges are revealed ('loss aversion'). Thus the initial decision to purchase at the low price increases the consumer willingness to pay
  - anchoring and adjustment - consumers regard the base price and the additional extras as separate pieces of information. Consumers anchor onto the first price seen - generally the lower base price - and then attribute less importance to later pieces of information (the extras). By anchoring onto the lower price, consumers do not include the full value of each additional charge in calculating the total price, and
  - presenting optional add-ons as opt-out may increase consumer detriment if consumers do not notice an add-on and, as a result, do not opt-out of a product or service which they do not require (or which they would prefer to decline if it made the overall price cheaper). In addition, consumers may be harmed if they make assumptions on the importance of an optional product or service based on the fact that they have automatically been opted in (that is, the fact that they have to opt-out may falsely confirm to a consumer that they need the additional product/service).
- Obfuscating the overall price:
- where the overall price payable is not prominently shown upfront, the use of drip pricing may increase search costs and make it more difficult to compare competing offers - that is because extra charges can differ across competing offers.

- miscalculation - where the overall price paid is not prominently shown upfront, consumers find it difficult to keep track of and sum together the total price payable. This may reduce price recall, thus further undermining consumers' ability to compare prices.

C.84 With regard to the first ToH, in paragraph C.29 we argued that the presence of circumspect consumers (that is, unaffected by the misleading use of price framing) may exert some protection over purchasers that show frame-dependence, in that traders still have to set the overall price competitively to sell to the circumspect consumers. However, this is not always the case when circumspect consumers are the ones less willing to purchase optional extras, that is, they only care about the headline price for the base product (inclusive of any compulsory charges).

C.85 It is possible that by misleading some consumers you are able to offer other consumers a better deal as a result. For example, it may be that the headline base price is set at low levels to attract circumspect consumers. This might only be possible if frame-dependent consumers end up paying surcharges and as a result cross-subsidise circumspect consumers who avoid the surcharges. In theory the upfront price may be so low as to increase overall consumer welfare even though frame-dependent consumers are misled.

C.86 In conclusion the OFT believes that it is very unlikely that consumers would benefit from offsetting efficiencies arising from the misleading use of drip pricing in advertising. Even if circumspect consumers do
benefit as a result of the cross-subsidy\textsuperscript{22} it is achieved in a misleading way and may infringe the CPRs professional diligence requirements.\textsuperscript{23} However, we would consider the scope for supply-side efficiencies on a case-by-case basis.

**Reference pricing**

**C.87** Reference pricing refers to circumstances where prices are compared to another benchmark price. For example products and services can be advertised at a price discounted from a previous price, a recommended retail price (RRP) or a competitor’s price. A high proportion of high street and online sales use reference prices to attract consumers.

**C.88** Where the references are clear, meaningful and accurate the resulting price competition can be beneficial for consumers by lowering prices (that is, informative price advertising). Provided that a reference is clear and accurate, the extent to which it is meaningful depends on whether it reflects the level of prevailing market prices, so that there is less need for consumers to continue their search.\textsuperscript{24}

**C.89** When the reference is to a competitor’s price, in particular, its informative value depends on the degree of price dispersion across

\textsuperscript{22} Economic theory suggests that this cross-subsidy may not be complete - that is, rents earned by over-charging for optional add-ons are not entirely competed away to discount headline prices for the base product - see, for example, Ellison, G. (2005), A Model of Add-on Pricing, 120 *Quarterly Journal of Economics*, pp 585-637.

\textsuperscript{23} Furthermore, the use of this 'bargain-then-rip-off' pricing structure may lead to inefficient under-consumption of the add-ons - that is, relative to a situation where the pricing structure prevailing in a market with no frame-dependent consumers would be less skewed and more reflective of underlying costs: see, for example, Lal, R. & Matutes, C. (1994), Retail Pricing and Advertising Strategies, 67 *Journal of Business*, 67(3), pp 345-370.

\textsuperscript{24} Whilst references may not be accurate where competitors are able to quickly adjust prices such that the advert claim is no longer valid, consumers will generally benefit from the resulting intense pricing rivalry.
However, one would expect that to be convincing for the consumer (and thus effective for the trader) the reference should be against an established competitor in the market.

C.90 The OFT believes that significant consumer detriment is only likely to arise where the reference price does not correspond to a genuine offer. In this respect, the key ToH is attempting to increase the consumer’s willingness to pay in an attempt to stop them from continuing their search.26

C.91 This could result in consumers spending more than they would have done because they over-estimated the value of the deal (that is, over-charging by the seller) and thus failed to buy from the lowest priced seller. This may be particularly so when consumers rely on the referenced quote to gauge the quality of the product or service sold. This can happen when consumers are unfamiliar with the product’s valuation, for example, in case of infrequent purchases or when quality is unobservable before purchase (see paragraphs C.52 to C.61).

C.92 The OFT believes that it is very unlikely that consumers would benefit from offsetting efficiencies arising from the misleading use of reference pricing in advertising. However, we would consider the scope for supply-side efficiencies on a case-by-case basis.

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26 Adverts where prices are referenced to a group of competitors may be more harmful to consumers where the comparator group of competitors is limited and not representative.

26 However, since consumers are less able to calculate percentage price reductions than money off offers, the other ToH may also be relevant when consumer search costs are increased because they are unable to accurately calculate the deal quickly.
Use of the word 'free'

C.93 In the main report we have discussed the conclusions about the use of the word 'free' in the chapter on volume offers. This is because it is often used in volume offers although it can also occur in relation to reference and complex pricing. In this annexe we have put it in a separate section to clearly explore the economic issues.

C.94 In a retail environment, product components, complimentary products, or multiples of the same product are often advertised as 'free'. However there are few occasions in which the item is truly free in the sense that the consumer is not expected to purchase another product or service, invest their time or part with personal information in order to obtain the 'free' item. Most of the time items given away as 'free' are the result of a cross-subsidy following the purchase of something else.

C.95 The situation is different when the product or service is given away for free in order to develop and retain a customer base of end-users in order to sell access to a different category of business customers. In these cases the trader is said to operate a two-sided platform, where end-users are attracted thanks to the provision of free services and/or products whilst the revenue comes from the other side. Revenue can be generated through subscription/usage fees (for example, real estate Internet portals) and/or by selling advertising targeted to affiliated end-users (for example, free newspapers, free email, social networks).

C.96 Consumers generally benefit from the provision of free services and products as a result of their affiliation to a two-sided platform. Often, however, there will be an exchange of a different kind - rather than money consumers will provide information about themselves in exchange for the 'free' product or service, which retailers can use
themselves or sell to third parties to create consumer profiles for use in targeted advertising etc.\textsuperscript{27}

C.97 Where the customers have to make a purchase to obtain the 'free' product or service, the relevant theory of harm may be to inflate consumer willingness to pay for the bundled product sold (the paid-for product plus the 'free' product). This is because of loss aversion and the endowment effect (see paragraph C.22).

C.98 For the reasons outlined in section 2 the OFT does not believe that the efficiencies arising from the use of the word 'free' in an attempt to increase consumer willingness to pay (and so generate scale economies) are sufficient to offset the harm caused by the misleading use of the word 'free'.

\textsuperscript{27} For more details, see the OFT's Market Study on Online Targeting of advertising and prices, available at www.oft.gov.uk/OFTwork/markets-work/completed/online-targeting
Bait pricing

C.99 Bait pricing is the practice of traders offering a limited volume of stock at the offer price which is too small to meet the expected demand in response to the offer.

C.100 The OFT believes that under certain circumstances bait pricing could result in significant consumer harm. Similar to drip pricing, both ToHs can be at play in bait pricing:

- Inflating consumer willingness to pay:
  - endowment and loss aversion effects - baiting raises consumer expectations about the deal they are about to get and this in itself increases consumer willingness to pay. Similar to drip pricing, this anticipated ownership of a product may create an endowment effect, so that consumers are willing to pay more to avoid feeling like they’ve missed out.

- Obfuscating the overall price paid:
  - baiting sales to some extent rely on increasing search costs by enticing the consumer to visit the shop. So once consumers have pursued the item at the bait price they may be reluctant to continue searching elsewhere.

C.101 When the bait price is not available, consumers may experience additional psychological detriment, such as anger and frustration due to the time wasted in pursuing the offer. Whilst there may be scope for consumer learning, baiting sales may also reduce the extent to which consumers believe genuine promotional offers they see in the future (see paragraph C.30).

C.102 It may be argued that, whilst misleading, bait pricing could yet provide offsetting efficiencies to the extent that it precludes consumers from incurring search cost or prevents over-searching. However, this argument rests on the assumption that the trader using bait pricing is comparatively cheaper (across all the product
range), so that albeit the transactional decision is distorted the consumer is ultimately guaranteed to find a good deal; this seems unlikely.

C.103 It is not clear why a competitive trader would have to use a misleading practice to make a sale. That is to say, unless the use of bait pricing is widespread across the market, we would expect a competitive trader to be able to thrive without having to distort the average consumer's transactional decision (for example, by using a genuine reference to competitors' prices instead).

C.104 If the use of bait pricing became common practice across sellers it is far from clear how this scenario could be beneficial to consumers. Indeed, the reduced consumer activity induced by the use of bait pricing suggests that actual prices are likely to go up as a result of a reduction in consumer shopping around.

C.105 That is to say, precluding consumers from incurring search costs (because of the bait) does not amount to a reduction in consumer search costs, and thus should not lead to the likely efficiency gains generally attributed to reduced search costs.

C.106 It seems unlikely that overall any efficiency gains from bait pricing would be sufficiently large to offset the detriment arising from the misleading practice.
Volume offers

C.107 Consumers regularly face volume offers, particularly on frequently purchased products such as groceries and toiletries, in many cases these offers use the word 'free'. These include offers such as three for two, Buy-One-Get-One-Free and 50 per cent extra free.

C.108 Where volume offers are clear and the underlying unit price has not been manipulated (that is, temporarily inflated), they may be expected to have clear benefits to consumers due to the lower unit cost of the goods in question.28

C.109 However, where the underlying unit price has been manipulated, for example increased for the period of the offer or the period immediately preceding the offer, then consumers are more likely to be misled about the real convenience of the offer, that is, the practice inflates the consumer's willingness to pay. Consumers are therefore at risk of being over-charged for the quantity they purchase, resulting in consumer detriment.

C.110 Price obfuscation may be at play as well, given that consumer detriment may also arise through cognitive errors in calculating the correct unit cost or level of saving, that is, the offer obfuscates the price of the product or service.

C.111 With regard to increasing willingness to pay genuine volume offers (where the underlying unit price has not been manipulated) may still have a detrimental effect on consumers by encouraging them to over-purchase, for example purchasing two products in order to get the third free when actually the consumer would have been better off by purchasing one (and save the cost of the additional purchase).29 This is because volume offers may play on consumers' desire to

28 This usually reflects volume discounts earned by retailers which are passed on to consumers.

29 From a utility maximising point of view it would always be optimal to take the 'free' item in a Buy-One-Get-One-Free offer, but not necessarily in a three for two offer.
obtain a 'good' deal, their unrealistic assessments of their needs and their lack of self-control, resulting in sub-optimal purchasing behaviour.\textsuperscript{30}

C.112 For the reasons outlined in section 2 the OFT does not believe that the efficiencies arising from misleading use of volume offers in an attempt to increase consumer willingness to pay (and so generate scale economies) are sufficient to offset the harm caused by the misleading practice.

\textsuperscript{30} Volume offers raise a further important issue around waste. Although our research will address the extent to which consumer purchasing decisions are affected by volume offers and therefore may provide information on the extent of over-purchasing, the specific issue of waste does not form part of this study’s assessment of consumer detriment.
Complex pricing

C.113 Complex pricing describes pricing offers where the unit price is difficult or impossible to discern. There are three main types of complex pricing offers:

- Multi-part pricing - where the product comprises two or more parts, each with a separate unit price. An example is a mobile phone that has a separate price for the handset, call time, text messages and internet access.

- Bundled or tied pricing - where there is a single headline price comprised of a bundle of different products which may be available separately (bundled pricing) or not (tied pricing). Examples include dual fuel (electricity and gas) bills, and media packages that includes broadband access, television services and fixed line telephony.

- Volume offers - where the unit price changes with volume, such as three for twos or BOGOFs.

C.114 The use of these practices may be combined.

C.115 As already noted with regards to the use of optional drip pricing (see paragraph C.84), these practices can offer significant benefits to consumers by allowing pricing to be better tailored to individual consumption profiles.31 However, some products, such as financial services and utilities, require consumers to deal with very complex products or pricing structures or a significant number of choices - which are not always justifiable in terms of the incremental benefit for consumers resulting from a better fit between their preferences

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31 The discussion of the pros and cons of price discrimination is beyond the scope of this paper. For a detailed analysis, see Stole, L.A. (2007), Price Discrimination and Competition, in Armstrong, M. & Porter, R. eds., The Handbook of Industrial Organization, (Amsterdam: North-Holland) col.3, chapter 34.
and product attributes. Stated otherwise, consumers might not be able to benefit from a better fit given the difficulties to actually work out what is on offer among confusing pricing structures.

C.116 In this respect, the key ToH is the concealment (obfuscation) of the overall price in an attempt to artificially raise consumer search costs. Faced with increasingly complex products and constraints on their time, consumers may choose to make decisions by:

- limiting searches
- deferring to an intermediary for advice
- employing a heuristic technique ('rule-of-thumb'), or
- forgoing making a purchasing decision because of the time and effort required to fully research and evaluate the offer.

C.117 In some cases employing a rule-of-thumb is beneficial to consumers. Given the number of potential purchasing decisions they come into contact with daily, these shortcuts are often a sensible way to deal with them and make decisions.

C.118 However, consumers may focus on headline price or one (prominent) price component and ignore additional pricing elements which may affect the total cost they have to pay. Because consumers anchor on this initial price they may fail to understand the total cost of the product or service and this may result in consumer harm.

C.119 Traders may take advantage of this lack of attentiveness and attempt to inflate consumer willingness to pay by making it unclear to consumers what they need to purchase in order to obtain the offer, or disguise any additional charges. This might lead to traders competing on the headline price and then charge higher prices for the hidden elements.

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C.120 It may be argued that, whilst misleading, complex pricing could yet provide offsetting efficiencies to the extent that it precludes consumers from incurring search cost or prevents over-searching. However, this argument rests on the assumption that the trader using complex pricing is comparatively cheaper (across all the product range), so that albeit the transactional decision is distorted the consumer is ultimately guaranteed to find a good deal; this seems unlikely.

C.121 As with bait pricing if complex pricing became common practice across sellers it is far from clear how this scenario could be beneficial to consumers. Indeed, the reduced consumer activity induced by the complex pricing suggests that actual prices are likely to go up as a result of a reduction in consumer shopping around.

C.122 It seems unlikely that overall any efficiency gains from complex pricing would be sufficiently large to offset the detriment arising from the misleading practice.
Time-limited offers

C.123 A time-limited offer (TLO) is one which only lasts for a limited period and the customer is advised that the price will not be available at a later date. If genuine such offers can be beneficial for both retailers and consumers, resulting in lower prices for consumers and the opportunity for retailers to clear stock.

C.124 However, TLOs can be used to inflate consumer willingness to pay. Time limits evoke feelings of scarcity in consumers which can lead them to overestimate the value of the deal, increase purchase intentions and reduce the extent to which they shop around. Time pressures may play on consumer's loss aversion and fears of missing out on a good deal.

C.125 The view of the OFT is that a TLO could result in significant consumer harm when it is not genuine, that is, when it does not end at the specified date or is frequently extended.

C.126 A further potential detriment from misleading TLOs is that in the long-run consumers may become wary of all TLOs. Since it is difficult for consumers to verify whether such an offer is genuine or not, consumers may discount all TLOs and therefore miss out on genuine deals. This also may have a detrimental effect on retailers with stock to clear who want to advertise a genuine TLO.

C.127 The OFT believes it is unlikely that overall any efficiency gains from complex pricing would be sufficiently large to offset the detriment arising from the misleading practice.
Price comparison sites

C.128 So far we have discussed how certain pricing practices could be cause for concern. Price comparison sites (PCSs) differ in principle in that their aim is to help consumers shopping around. This means that for PCSs to be a cause for concern their use by consumers must fall short of expectations in terms of the comparisons made.

C.129 We explained above that reliable informative (price) advertising has clear pro-competitive effects in that it intensifies pricing rivalry, whereas the misleading use of price advertising is generally a response to intense price competition aimed at making the firm’s demand more price inelastic. The expectations are that the advice provided by PCSs qualifies as reliable informative (price) advertising.

C.130 The term PCS covers a range of different business models. In terms of scope, some sites focus on specific products such as car insurance, whereas others cover a range of products such as financial services or consumer electicals.

C.131 Revenue-wise, commercial PCSs normally generate revenue from two main sources:

- commission (that is, introductory fees) paid by sellers on the basis of users’ online activity elicited by the price quote posted on the PCS - that is, cost per click/action,\(^{33}\) and/or

- advertisements displayed on the site through banners and pop-ups. Advertising space can also be sold directly to sellers in the form of sponsored links to secure a prominent position on the site.

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\(^{33}\) PCSs generally use cookies to track users’ online movements and to determine the level of commission.
C.132 The way in which the PCS is funded and the proportion of the market it covers will affect the benefits to consumers of using the site.\(^\text{34}\) If consumers are unaware that a site does not cover all retailers in the market of that it is financed through payments from retailers or by adding surcharges, consumers may under-search, believing that the price comparison site will return the 'best' deal available.

C.133 This is consistent with the first ToH where the misleading use of price advertising is aimed at inflating consumer willingness to pay. In particular, PCSs may engage in a number of practices:

- **Misquoting**: where the cheapest headline price returned by the price comparison site does not necessarily match all the criteria requested by the consumer, leading to misleading comparisons.

- **Surcharging**: where prices returned for requested products or services reflect the suppliers price plus a hidden mark-up added by the site. This practice is sometimes called 'screenscraping'.

- **Out of date prices**: where the price comparison site returns out of date price information.

- **Flooding**: where a single firm offers many slightly different options in order to get multiple listings on the price comparison sites. This may include very basic products in order to get to the top of the list.

- **Baiting/dripping**: where the site compares only the basic offers and consumer only discover additional charges once they select the offer.

C.134 PCSs have clear consumer benefits in enabling consumers to more easily search for and compare products. However, PCSs may exacerbate the consumer detriment if consumers believe that a

\(^{34}\) For a detailed analysis, see OFT (2007), Internet shopping - Economic literature review (Annexe F), Section 5, available at www.of.t.gov.uk/OFTwork/markets-work/completed/internet.
company which is low price on a low quality item will be low price on all items (see discussion on bait pricing at paragraphs C.102 and C.103 or if consumers believe that 'additional' charges will be the same across all firms.

C.135 Problems can arise if the incentives of the intermediary and the consumer are not aligned or if consumers rely on the advice of a single intermediary when it would be advisable to consult more than one PCS. However, to the extent that PCSs differ in the way comparison results are reported, consulting more than one PCS may not be straightforward for consumers, which would tend to increase consumer search costs.

C.136 This increase in search costs is the same as the effect arising from price obfuscation. If misleading practices by PCSs became common across all sites it is likely that consumer shopping around would be reduced due to higher search costs and as a result actual prices are likely to go up. This is unlikely to be offset by any efficiencies arising from the PCSs using misleading practices.