

Product market and competition

1. Introduction

1. Appendix D suggests that the relevant geographic market for local, weekly newspapers appears to be wider than the circulation 'footprint' of any former-INM title but that the market is local. As in previous CC newspaper merger inquiries, however, we recognize that the boundaries of the relevant geographic and product markets may be interdependent. This appendix is intended to correspond as closely as possible to market realities and to do this we analyse our quantitative survey of advertising customers and non-customers in former-INM and Archant titles.
2. Our conclusions suggest that:
 - many advertisers have alternatives to local newspaper advertising and are generally not aware nor too concerned about the merger;
 - although there appears to be little or no demand-side substitutability between different categories of advertising, supply-side substitution may broaden the relevant market to include all categories of advertising; and
 - there is insufficient evidence to establish that, after the acquisition, Archant would have sufficient market power profitably to raise prices by an amount that would cause concern, either across the board or on a targeted basis.
3. This appendix is structured as follows. Section 2 sets out some background discussion of the general features of the market, before turning to consider the data on yields in the different categories of advertisers in section 3. Section 4 analyses the survey responses on the maximum increase in the price of advertising in local newspapers that advertisers would accept before stopping advertising in this media. Section 5 looks at respondents' perceptions of the availability of substitute media to the Archant local newspapers, ie other local newspapers, advertising-only publications, London-wide newspapers, and non-print media. Section 6 discusses the views expressed by customers on the impact of the merger. Section 7 concludes and our statistical results are shown in section 8.

2. Background

4. In recent CC local newspaper merger inquiries, we have taken the relevant product market to be local, paid-for and free weekly newspapers, while acknowledging that other printed and non-printed media may impose some competitive constraint on local weekly newspapers for different categories of advertising.
5. There are two aspects to product market definition, which one can also use when considering competition within the market:
 - whether there are separate, relevant product markets for different categories of advertising; and
 - whether other printed media (for example, advertising-only publications, national and regional newspapers) and non-printed media (for example, radio, Internet)

belong in the same relevant product market as local, free and paid-for, weekly newspapers.

Categories of advertising

6. It is self-evident that there is little or no demand-side substitutability between categories of advertising from the point of view of advertisers. This lack of demand-side substitutability could be thought of as suggesting that there may be separate product markets for each category of advertising.
7. Supply-side substitutability appears to be easy, however, and this might broaden the boundaries of the relevant product market to include all categories of advertising. For example, Archant has informed us that it may do one, or more, of three things in response to an increase in demand for advertising in one category only:
 - increase the total number of pages of advertising (subject to physical constraints on printing and colour¹) to accommodate an increase in demand for one category of advertising;
 - reduce the non-advertising space in the relevant title(s) to accommodate an increase in demand for one category of advertising, without increasing the total number of pages of advertising (for example, reduce white space, headings, editorial content and 'house ads', which are Archant advertisements for other Archant titles); and
 - increase the share of advertising in the relevant title(s) taken by one category to accommodate an increase in demand for it, by reducing the share taken by the other categories.
8. All three courses of action can be considered as examples of supply-side responses that would broaden the relevant product market to include all (or some) categories of advertising.

Other printed media

9. There are three types of other printed media that may be relevant to our current inquiry: national newspapers, regional newspapers and advertising-only publications. We look at each of these in turn.

National newspapers

10. In line with earlier CC reports on newspaper mergers, we are minded to take national newspapers to be a separate relevant market from those relating to regional/local titles because of the self-evident and well-documented demand-side differences with respect to both readers and advertisers. In short, national newspapers provide far more national and international news (from the readers' viewpoint), and appear to serve a largely different segment of the advertising market. In the present inquiry, there appear to be only two possible exceptions to this general observation:

¹We were informed that these constraints can be binding for titles that have a lot of property advertisements (which tend to be large and colourful).

- The first is advertising for ‘up-market’ property in affluent areas of north London (for example, Hampstead, Highgate), where—we are informed—the *Sunday Times* competes with Archant’s *Ham & High* (ie the *Hampstead & Highgate Express*).² However, our main interest in this inquiry is the relevant product market(s) within which the former-INM titles operate and we have not seen any evidence (nor has Archant or any third party suggested) that the former-INM North London titles (ie the *Islington Gazette*, *Hornsey Journal* and *North London Herald*) compete with the *Sunday Times* in property advertising.
- The second is national ROP (run of paper) advertising, primarily by large, national retail chains. Although it seems plausible to us that national newspaper advertising (especially in national Sunday newspapers) could impose a competitive constraint upon national advertisers wishing to advertise in multiple localities via weekly, local newspapers, Archant has informed us that national advertising typically makes up substantially less than 10 per cent of total advertising revenue. Presumably, national advertising makes up a much higher share of total advertising revenue for national newspapers. This implies that national newspapers may be more mindful of the constraint imposed by national ROP advertising in local newspapers, than local newspapers are of national newspaper advertising.

Regional newspapers

11. Of particular relevance to this inquiry is the extent to which the two regional newspapers available in London—namely *Metro* (a free, daily pick-up) and the *Evening Standard* (a paid-for daily)—operate in the same market as free and paid-for weekly local newspapers.³
12. From the viewpoint of readers, these regional newspapers typically seem to provide far more national and international news than do local, weekly newspapers. Unlike local, weekly newspapers, the news and editorial coverage of regional newspapers focuses much less on particular neighbourhoods. This could suggest that readers do not view them as substitutes but as complements for news.
13. However, we consider the question of whether advertisers view them as substitutes to be more open.

Advertising-only publications

14. Recent CC local newspaper merger reports have taken the view that the main competition for the kind of advertising that is carried in local newspapers comes from other forms of printed media such as advertising-only publications (ie niche titles that may include some editorial content), directories (for example, *Yellow Pages*) and direct mail. The competitive constraint that these other printed media may possibly impose upon advertising in local newspapers has been seen as applying mainly to the property, motor and recruitment categories. Archant has suggested the same to us.⁴

²Archant provided us with an example of switching by a North London estate agent from the *Ham & High* to the *Sunday Times* (among other publications).

³Both *Metro* and the *Evening Standard* are published by DMGT.

⁴Archant has also suggested that other printed media impose a competitive constraint on local newspaper advertising in the retail and classified categories. However, Archant has suggested that other local newspaper titles impose more of a constraint than do advertising-only publications for these two categories of advertising, and we concentrate on the advertising-categories of property, motor and recruitment in what follows.

15. As with national newspapers (and in accordance with previous CC local newspaper merger inquiries), there are self-evident and well-documented differences between printed directories and local, weekly newspapers, which could mean that advertisers do not see them as viable alternatives. For example, their frequency of publication generally differs, with printed directories being produced much less frequently than weekly, local newspapers (for example, annually).
16. Archant suggested to us that direct mail may impose a competitive constraint upon some types of advertising in weekly, local newspapers. Specific examples we were given in this regard include the loss of some motor advertising (ie for new cars) from main car dealerships, who—we were informed—target direct mail at prospective customers and/or publish their own magazines. Archant also told us that some national ROP retail advertising has also been lost to direct mail, as a result of loyalty cards. In this respect, it appears to us that advertising that can be delivered through direct mail may be more targeted (at the specific characteristics of the customer) than can advertising in local newspapers. We interpret this as suggesting that direct mail largely serves a different segment of the motor and retail advertising markets.⁵
17. However, we consider as open the question of whether advertisers see advertising-only publications as substitutes to local, weekly newspapers for property, motor and recruitment advertising.

3. Yields

18. The key issue in our analysis of the boundaries of the relevant product market is whether sufficient substitutes are available to advertisers in different categories to make a hypothetical price rise of around 5 per cent unprofitable.⁶ We begin our assessment of this issue by looking at whether there are differences in the prices that advertisers in each category pay, which are shown in Table 1 for the seven major categories of advertising in four former-INM divisions from 2000 to 2004.⁷
19. From Table 1, it appears that there are substantial and persistent differences between advertising yields for different categories of advertising in various parts of Greater London.⁸ It also appears that three categories consistently command higher yields than others: national ROP, public notices and recruitment. This might reflect a lack of alternatives to advertising in local newspapers for these categories, relative to other categories.

⁵Further, although we have seen no quantitative evidence, we suspect that the unit cost of direct mail per reader is substantially higher than that of local newspaper advertising. If so, it does not seem likely that a 5 per cent rise in the price of local newspaper advertising would make enough advertisers switch to direct mail to be unprofitable.

⁶The 'hypothetical monopolist' test—see *Merger References: Competition Commission Guidelines*, paragraphs 2.4 to 2.27.

⁷The former-INM North West London division [] is omitted from Table 1. However, large differences between yields in public notices and recruitment, and all other categories are evident both before and after 2002 in North West London.

⁸In the provisional findings, the former-INM divisions are referred to as publishing units, to differentiate them from the former-INM London Regionals Division.

TABLE 1 Weighted-average yields for the main categories of advertising in four former-INM divisions, 2000 to 2004

Category	Post					East				North					Kent				£	
	2000	2001	2002	2003	2004	2000	2001	2002	2003	2000	2001	2002	2003	2004	2000	2001	2002	2003		2004
National ROP																				
Local ROP																				
Public Notices																				
Recruitment																				
Motors																				
Property																				
Classified																				

Source: Archant; and CC report on Newsquest/INM.

20. From Table 1, it does not appear that yields in different categories of advertising move together over time within a single division.⁹ Taken together with the substantial differences in the level of advertising yields, this could be a reflection of separate relevant product markets for each type of advertising.
21. It has been suggested to us that these dramatic differences between yields for different categories of advertising may capture more than simply willingness to pay as a result of differing outside advertising options. Differences in cost have been mentioned in this regard. For example, it is cheaper to sell advertisements to estate agents than to recruitment advertisers. This is because estate agents tend to buy large blocks of advertising for lengthy periods within which they place advertisements similar in style (for which they may have already done pre-production ‘typesetting’ work), whereas recruitment advertisers will advertise infrequently and to no ‘standard’ format. A similar argument applied to motor advertising (ie it was cheaper to supply than recruitment advertising).¹⁰
22. We have also been told that some types of advertising—particularly the property pages—themselves help to boost circulation and hence other advertising sales, conferring an additional benefit to the newspaper.
23. To examine whether yields may differ because of differences in the availability of substitutes between categories of advertising, we turn in the next section to our quantitative survey of advertisers.¹¹

4. Quantitative survey responses: critical price increases

24. The marked and persistent differences in yields between categories within former-INM divisions, that appear to be unrelated to each other over time, might be taken as evidence of separate, relevant, product markets for different categories of advertising. However, as outlined above, there may be other explanations for the observed differences in yields that are unrelated to the competitive constraints faced by publishers of local newspapers in pricing their advertising (for example, differences in cost). To examine this question further, we start, in this section, by considering respondents’ tolerance of price increases.
25. In section 5 we consider what other media might be substitutes for local newspapers. We relate the critical price increase that respondents say would stop them advertising in their local newspaper with the availability of substitutes, such as other local newspapers, advertising-only publications, the *Evening Standard* and *Metro*, and

⁹The correlations between yields over time within a single INM division in Table 1 are generally low (ie less than 0.5) or negative. As a benchmark, the correlation between national ROP yields in each division (ie East and North London, Post and Kent) over time are as high as 0.94. Given that we might reasonably assume that national ROP advertising operates in the same market over divisions, we might expect a correlation of this order (ie 0.9 or more) to indicate that different categories of advertising belong in the same market. We should note that these correlations are based on only a handful of data points, however, and care should be taken in interpreting them.

¹⁰It has also been suggested to us that differences in yield may arise because of the way in which yield data is calculated. Specifically, the calculation of yields (as revenue divided by volume of advertising sold) takes no explicit account of the circulation of the title(s) in question. So, for example, price per scc per thousand copies circulated may be a better measure of yield than price per scc alone. We acknowledge that this may partly explain differences in yields between titles but we do not think that it can explain differences in yields between categories of advertising. Further, *East End Life* told us that a page of its advertising is six columns wide, whereas an advertising page in the former-INM *East London Advertiser* is nine columns wide. The titles in the former-INM divisions in Table 1 have nine-column advertising pages, so we do not consider this to be a problem.

¹¹We are not able to relate the yields data at our disposal (as used in Appendix D, for example) to the responses to the questions in our advertisers’ survey that may be most relevant to product market definition. This is because the yields data are reported separately for display (ie national and local ROP) and classified advertising (for example, motor, property, recruitment), whereas survey respondents do not appear to differentiate between display or classified but only between categories of advertising (for example, motor, property, recruitment, retail, entertainment, travel).

non-printed media (such as radio, television, the Internet, billboards and text messaging) controlling for other factors that may affect this reported critical price increase. The idea behind this is that if respondents' tolerance of price increases appears to be negatively related to the perceived availability of substitutes, then this might imply that these substitutes exert competitive pressure on the price of advertising in local newspapers, ie that they may belong in the same product market.¹²

26. Our quantitative survey asked respondents what level of increase (in per cent) in the cost of advertising (to them) in local newspapers, if any, would stop them advertising in local newspapers. Of our 579 respondents, 355 answered this question: responses ranged from 1 per cent (29 responses, ie 8.1 per cent) to 100 per cent (3 responses, ie 0.9 per cent).¹³ The average (mean) reported critical price increase was 17 per cent but the range of responses was skewed towards smaller critical price increases (the median critical price increase was 10 per cent).¹⁴
27. 23 per cent of Archant/INM customers who expressed an opinion said that an increase of 5 per cent or less in the cost of advertising in local newspapers would stop them advertising there. Although this evidence is hypothetical—suggesting what customers might do, not what they actually have done—if true in practice, it suggests that a hypothetical monopolist of local newspapers would lose almost one-quarter of its customers if it increased prices across the board by 5 per cent. Given the revenue accounted for by these customers, this would only be profitable if costs could be reduced by significantly more, which is highly improbable given that the cost of editorial content and distribution, among other things, are unlikely to change much. Archant estimated the cost saving resulting from a modest loss of business to be less than 10 per cent of the corresponding revenue loss. Taken at face value, this might suggest that advertising in local newspapers is not a relevant market.
28. Even taking the extreme assumption that respondents who did not indicate a critical price increase would not switch at any price, 15 per cent of customers would still be lost to a 5 per cent price rise. Again, taken at face value, this might suggest that the relevant product market is wider than local, weekly newspapers. Archant has suggested that 5 per cent is a conservative value for the hypothetical monopolist test: broadening the scope of the hypothetical price increase to 10 per cent, 34 per cent of customers would be lost to a price increase of this magnitude—even assuming that non-respondents would not switch. Taken at face value, this also suggests that advertising in local newspapers is not a relevant market.
29. However, there are some qualifications to this point. Most significantly, Archant appears to charge different prices to different customers. It is possible that, if the merger increased its market power, it would increase prices most to those customers who had fewest alternatives. Taken at face value, our survey responses suggest that over three-quarters of customers would not stop advertising in local newspapers faced with a 5 per cent increase in prices, and half the customers would not stop faced with a 10 per cent increase in prices. In the extreme case that a hypothetical monopolist had perfect information on the point at which each customer would switch (and if customers were all of equal value) this would suggest that such a monopoly

¹²We have also undertaken a number of other types of analysis using other sources of data (ie not from our survey), which are not reported because their usefulness was extremely constrained by data limitations. See paragraph 70 for a discussion of some of these.

¹³We have excluded 30 respondents (16 of whom are Archant/INM customers) who said that their critical price increase was 0 because it appears that these respondents may have been saying that there was not any percentage increase that would make them switch, not that a 0 per cent price increase would make them switch.

¹⁴Of the 355 responses to the 'critical price increase' question, 275 were INM/Archant customers and 80 were non-customers. The average reported critical increase for customers was 17.1 per cent (the median was 10 per cent), and the average reported critical increase for non-customers was 16.7 per cent (the median was also 10 per cent). These differences are not statistically significant, meaning customers are not likely systematically to report a different critical price increase than non-customers.

supplier of local newspapers could profitably increase prices on average by 5 per cent by targeting its price rises on those who were least likely to move. We examine this in the next section.

Price discrimination

30. There are two important implicit assumptions in stating that a monopoly supplier of local newspapers may be able profitably to increase prices on average by 5 per cent by targeting its price rises on those who were least likely to move: the assumption that it can target price increases accurately to each customer;¹⁵ and the assumption that all customers are of equal value. The process of charging different prices to different customers is known as price discrimination. In the present case there appear to be two dimensions along which price discrimination takes place:
 - prices appear to differ for different categories of advertising (as shown in Table 1); and
 - some customers within a category of advertising achieve better rates than others, in part as a result of how much they spend, or commit to spending.¹⁶
31. We should note, however, that Archant may be able to price discriminate more effectively than this. For example, through the process of negotiation, the parties learn about each others' reservation price, and Archant can also draw on other information sources, such as the advertisements placed.
32. We do not have data on the different prices individual customers pay within categories. The yield data reported in section 3 shows marked differences in average yields between categories but this will underestimate the differences in prices paid by customers. The survey tells us the number and proportion of customers who say they would switch away from advertising in Archant/INM titles in response to reported critical price increases of 5 per cent or less and 10 per cent or less, and these are shown by category of advertising in Table 2, by level of annual expenditure with Archant in Table 3 and by area of London in Table 5.¹⁷
33. It should be noted that some of the customers surveyed said that they advertised in more than one category, and we do not have information on which was their main category. This could obscure any relationship between the type of advertisement and the critical price increase. However, analysis suggests that this is less of a problem for property and recruitment advertisements than for other categories (ie property and recruitment advertisers tend to be distinct).¹⁸

¹⁵The technical term for this is first-degree price discrimination.

¹⁶The technical terms for these are third-degree and second-degree price discrimination, respectively. Archant told us this in the context of a discussion about 'contracts' for advertising. This is also consistent with some of the findings of our qualitative survey.

¹⁷Our quantitative survey sample was constructed with quotas of Archant customers according to their annual expenditure with Archant. We use these descriptors in Table 3.

¹⁸See paragraph 75 for further details.

TABLE 2 Customers lost to 5 and 10 per cent price increases by category of advertising

Category	Reported critical price increase of 5% or less		Reported critical price increase of 10% or less		Responses*
	Number	%	Number	%	
Property	10	18.9	29	54.7	53
Motors	7	31.8	17	77.3	22
Recruitment	23	22.1	53	51.0	104
Retail	11	33.3	19	57.6	33
Entertainment	11	34.4	17	53.1	32
Other†	<u>15</u>	21.7	<u>36</u>	52.2	<u>69</u>
Total‡	63	22.9	144	52.4	275

Source: CC calculations based on Synovate survey.

*Adding together the number of respondents reporting critical price increases of 5 per cent or less and 10 per cent or less will not give the total number of responses because the number of respondents reporting critical price increases of 5 per cent or less is a subset of the number of respondents reporting critical price increases of 10 per cent or less.

†Other includes travel, charities, childcare, IT, private tuition, domestic services, financial services, professional services, trade services, other services, mechanics, health & beauty, hotels, leisure, publishing and wholesale.

‡The total number of responses across categories of advertising sums to more than 275 because some respondents advertise in more than one category. Because of this, the test of whether there are any statistically significant differences in switching behaviour between categories is done in an analysis of variance framework.

34. Archant told us that [X] per cent of its combined advertising revenue with INM in London in 2003 was retail and entertainment, that [X] per cent was recruitment, [X] per cent was property and [X] per cent motors (the remaining [X] per cent was classified). Table 2 suggests that there may be some differences in reported critical price increases between categories but, given the small number of responses, it is hard to tell. However, Table 2 does not suggest that switching in response to critical price increases of 5 per cent is systematically more or less likely for higher-revenue-earning categories (for example, recruitment) than for lower-revenue earners (for example, motors).¹⁹

TABLE 3 Customers lost to 5 and 10 per cent price increases by level of annual expenditure with Archant

Annual expenditure	Reported critical price increase of 5% or less		Reported critical price increase of 10% or less		Responses*
	Number	%	Number	%	
Low (less than £1,100)	22	18.8	49	41.9	117
High (£1,100–£22,500)	39	26.0	90	60.0	150
Very high (more than £22,500)	<u>2</u>	25.0	<u>5</u>	62.5	<u>8</u>
Total	63	22.9	144	52.4	275

Source: CC calculations based on Synovate survey.

*Adding together the number of respondents reporting critical price increases of 5 per cent or less and 10 per cent or less will not give the total number of responses because the number of respondents reporting critical price increases of 5 per cent or less is a subset of the number of respondents reporting critical price increases of 10 per cent or less.

¹⁹Adding together the critical price increase responses for customers advertising in retail and entertainment means that 33.8 per cent of these customers would be lost to a 5 per cent price increase and 55.4 per cent would be lost to a 10 per cent price increase. This is because there are 11 retail customers who would be lost to a 5 per cent price increase and 11 entertainment customers who would be lost. Adding these together gives 22 retail and entertainment customers lost to a 5 per cent price increase, which is 33.8 per cent of the total number of retail and entertainment responses (ie 33 + 32 = 65). Similarly, there are 19 retail customers and 17 entertainment customers who would be lost to a 10 per cent price increase and this is 55.4 per cent of the total number of 55 retail and entertainment responses.

35. Table 3 appears to suggest that a greater proportion of high-spending Archant customers would stop advertising in local newspapers, in response to a hypothetical 5 per cent increase in price, than would low-spending Archant customers. Table 4 provides further information on the critical price increase by size of spend. The high and very-high spenders are together responsible for 90 per cent of Archant/INM's advertising revenue, and the median price rise both groups would tolerate is 10 per cent. The low spenders constitute 43 per cent of the customers who responded (ie 117 out of 275) but just 10 per cent of advertising revenue; their median reported critical price rise is 20 per cent and 65 per cent of even low-spending customers would be lost to such a price increase. The large inter-quartile ranges in Table 3 are consistent with there being considerable variation in reported critical price increases between customers in all three groups of annual expenditure, which implies that Archant could find it hard to use the level of expenditure to identify whether any group of advertisers was price insensitive.²⁰

TABLE 4 Customers' reported critical price increases by level of annual expenditure with Archant

	<i>Very high spenders (more than £22,500)</i>	<i>High spenders (£1,100—£22,500)</i>	<i>Low spenders (less than £1,100)</i>
Median reported critical price increase, %	10	10	20
Inter-quartile range of reported critical price increase, %	14	15	15
Number of responses	8	150	117
Proportion of Archant advertising revenue, %	49	41	10

Source: CC calculations based on Synovate survey.

36. We finally look at whether customers are more sensitive to price changes in particular areas. Tests on the responses summarized in Table 5 show that there is no statistically significant difference between the areas.

TABLE 5 Customers lost to 5 and 10 per cent price increases by area

<i>Category</i>	<i>Reported critical price increase of 5% or less</i>		<i>Reported critical price increase of 10% or less</i>		<i>Responses*</i>
	<i>Number</i>	<i>%</i>	<i>Number</i>	<i>%</i>	
East London	38	25.2	80	53.0	151
North London	23	22.5	56	54.9	102
North West London	20	24.7	47	58.0	81
Kent	14	31.1	32	71.1	45
Post	<u>45</u>	27.8	<u>89</u>	54.9	<u>162</u>
Total†	63	22.9	144	52.4	275

Source: CC calculations based on Synovate survey.

*Adding together the number of respondents reporting critical price increases of 5 per cent or less and 10 per cent or less will not give the total number of responses because the number of respondents reporting critical price increases of 5 per cent or less is a subset of the number of respondents reporting critical price increases of 10 per cent or less.

†The total number of responses across areas sums to more than 275 because some respondents advertise in more than one area. Because of this, the test of whether there are any statistically significant differences in switching behaviour between areas is done in an analysis of variance framework.

37. Table 6 illustrates the extent of discounting from list price. Discounts appear to vary by categories of advertising and division (which is consistent with the marked and persistent differences in yields by category of advertising and division evident from

²⁰The inter-quartile range is the difference in the reported critical price increase of the most responsive quarter of customers and the reported price increase of the least responsive quarter of customers.

Table 1). It is also worth noting that a small proportion of customers, by value, pay prices sufficiently close to the rate card for it to constrain price rises in the short term.

38. Archant told us that volume discounts were often driven by the economic strength of large buyers (for example, estate agents)—and not by Archant itself—who could negotiate discounts because they bought a large amount of advertising. We find this a plausible explanation because Archant’s short-run variable costs of selling advertising appear to be low relative to total costs (we are informed that they are less than [redacted] per cent), which means incremental sales are very valuable to Archant as prices are high relative to variable costs. In this case, a large buyer who can credibly threaten to buy elsewhere has considerable bargaining power. This implies that volume discounts may not be an instrument of price discrimination that Archant can impose on its advertisers, which could reduce their effectiveness in targeting price increases. In this respect we also note that Archant is represented in its national ROP and agency business by an agency (Clacksons), so that Archant does not appear to have any direct contact in terms of price-setting with its national ROP and agency customers at all.
39. However, we note that Archant also has supplied us with planned discounts for the former-INM East London division and the Archant North London division (as opposed to the achieved discounts in Table 6). In this respect, we note two things:
- The planned discounts in the former-INM East London division and Archant’s North London division appear to be smaller than the actual discounts achieved by customers elsewhere given in Table 6, which might suggest that customers may be able to impose larger discounts that Archant budgets for.
 - Archant has reported planned discounts as well as achieved discounts for the former-INM North London division. In just two of seven instances (for Public Notices and Property) did Archant actually offer deeper discounts than it had planned for, which might suggest that Archant may be able to impose the discounts it wants on customers.²¹ Alternatively, it might just indicate that its budgetary estimates were incorrect.
40. Turning to third-degree price discrimination, large numbers of Archant customers appear to advertise in more than one category of advertising and/or more than one newspaper.²² We think that it is likely to be harder for Archant to price discriminate, at least on volume grounds, if it cannot identify these customers. Archant told us that the extent of such ‘packaging’ of advertising across its own divisions was not systematically measured, although packaging by INM had been more widespread (accounting for up to 50 per cent of advertising revenue for some former-INM divisions, although Archant did not say which). Archant did present some evidence to the OFT that it planned to extend packaging of advertising, however.

²¹[redacted]

²²Of our 275 customers who reported a critical price increase, 230 (83.6 per cent) advertised in just one category; 36 (13.1 per cent) advertised in two; 7 (2.6 per cent) advertised in three; 1 (0.4 per cent) advertised in 4 and 1 (0.4 per cent) advertised in six. Further 70.6 per cent (194 customers) advertise in more than one edition. We do not know what proportion of Archant’s customers advertise in more than one title but, according to our survey, 48.4 per cent of Archant customers (133 customers) advertise in more than one former-INM division. It seems plausible to us that the proportion of Archant customers advertising in more than one title lies somewhere between these two percentages (ie around 60 per cent).

TABLE 6 Average achieved discounts off rate card and rate-card prices by former-INM and Archant divisions, 2004

Advertising category	Kent		In former-INM divisions				In Archant divisions					
	Rate-card £	Discount %	Rate-card £	Discount %	Rate-card £	Discount %	Rate-card £	Discount %	Rate-card £	Discount %	Rate-card £	Discount %
National ROP												
Local ROP												
Public Notices												
Recruitment												
Motors												
Property												
Classified												

Source: Archant.

*For Archant East London, rate-card prices are: National ROP £[REDACTED], Local ROP £[REDACTED], Public Notices £[REDACTED], Recruitment £[REDACTED], Motors £[REDACTED], Property £[REDACTED] and Classified £[REDACTED].
 †Classified sales and service £[REDACTED], classified adult leisure £[REDACTED].

41. In sum, the evidence on price discrimination appears to be mixed but does not appear sufficient to establish that Archant could use the instruments of price discrimination that seem to be available to it to profitably target a price increase averaging 5 per cent. The marked variation in yields between different advertising categories reported in Table 1 suggests that price discrimination takes place by category of advertising. However, the survey responses on critical price increases suggest that the scope for further price discrimination based purely on category of advertising may be limited, as the distribution of critical price increases does not appear to differ significantly between the different categories of advertising.
42. The large average discounts off the rate card indicate that there is considerable headroom for a substantial majority of customers by value to face price rises without hitting rate card levels. However, other information suggests that the scope to increase profits by volume-based price discrimination is limited. In particular, although low spenders are less price sensitive than high spenders and account for over 40 per cent of survey responses, they account for only 10 per cent of advertising revenue and price sensitivity even among low spenders appears to vary considerably.
43. There are two further qualifications to these survey results. First, survey responses to questions about responses to price increases do not necessarily reflect how customers react in practice. One might expect that respondents would tend to claim they will switch more readily than they would do in practice, at least in the short term, given the work involved in finding a suitable alternative, the uncertainties about the performance of the alternative found, and their desire to look rational to the surveyor. This finding should therefore be treated with caution, and might represent an upper limit on the proportion of customers who would switch. However, Archant considers it equally plausible that when faced with the reality of having to pay higher prices, advertisers will be more responsive than claimed in the survey.
44. Secondly, our survey presented respondents with an all-or-nothing choice: what increase in prices would stop you advertising? Archant has suggested that this means our survey is not informative about partial substitution, where customers switch only part of their advertising away from local newspapers, which could imply that our respondents' reported critical price increases understate the degree of substitution.
45. We do have some direct information on actual responses to price changes but this concerns an across-the-board price rise and not one that differed between customers. Archant told us that INM had attempted a unilateral [redacted] per cent increase in advertising rates to all customers in its four titles in the Post division in December 2003. [redacted] These figures might imply that Post division advertisers are price sensitive, on average.²³ We do not know to what extent (if any) cost may have declined as a result of the [redacted] in the volume of advertising sold but we do not think cost could have declined sufficiently to make this price increase profitable because Archant has told us that the short-run, variable cost of advertising (ie the cost immediately saved because of the drop in sales) is less than [redacted] per cent of total cost.²⁴

²³These figures might imply that the price elasticity of demand is $-[\text{redacted}]$, or the proportional change in volume divided by the proportional change in yield), which is quite elastic (ie price-responsive). However, Archant has told us that the vagaries of calculating yield appear to be such that yield figures cannot be trusted to the extent that revenue and volume figures can. This means any estimate of the price sensitivity of IMN's customers in the Post division should be treated with caution.

²⁴If [redacted] per cent of the total cost of supplying advertising is short-run variable cost and only short-run variable cost is saved when sales drop by [redacted] per cent, then the total cost saving is [redacted]. Given the [redacted] in revenue, this implies that profit (ie total revenue minus total cost) [redacted] as a result of the price increase, which means the price increase was not profitable.

46. Indeed, Archant gave us the impression that the price increase had not been profitable but did not supply any detailed figures in writing in this regard. Taken at face value, this suggests that advertising in former-INM local newspapers in the Post division is not a relevant economic market, which appears to be consistent with our quantitative survey. On the other hand, where suppliers can charge different prices to different groups, it may be more appropriate to treat these different groups—for the purposes of assessing competitive pressures—as separate markets, or as one market while noting the scope for price discrimination between the different groups within the market.
47. Moreover, were better price discrimination possible, it is not clear why INM would have attempted an across-the-board price increase. We note that the intention might have been to negotiate with customers against the across-the-board price rise, but even if this was the case, the net effect on revenue still seems to have been negative.
48. In conclusion, we have presented a number of reasons why 23 per cent might be a poor estimate for the likely fall in sales resulting from an increase in prices of 5 per cent. The main question over this result is the extent to which Archant can price discriminate between customers; if it could target price rises so as to push each advertiser to its reservation price—and if the big-spending customers are not disproportionately price-sensitive—then it seems likely that it could profitably increase prices by 5 per cent on average. However, there is some evidence that high-spending customers are more price sensitive than others, and INM’s experience of trying to increase prices by [X] per cent in late 2003 reportedly resulted in a fall in revenue.
49. We also note that some customers will switch part of their business to other newspapers; and if this is additional to the switching identified in the responses to this question, then Archant would have less power to increase prices than these figures suggest. Against this, there could be a tendency for customers to exaggerate their likelihood of switching, for example because they underestimate the costs and risks of switching.

5. Survey respondents’ perceptions of the availability of substitutes

50. The survey asked respondents about the other media where they could and would advertise instead of their Archant local newspaper. The questions were as follows:
 - question 10, which asks whether respondents think that there are other local newspapers that they could and would use instead of advertising in their local newspaper;
 - question 11, which asks whether advertising-only publications are an effective substitute for advertising in their local newspaper;
 - question 12, which asks the same of London-wide newspapers (ie the *Evening Standard* and *Metro*); and
 - question 13, which asks whether non-print media (for example, radio, television, Internet, billboards, text messaging) are an effective substitute.
51. The results suggested that respondents did perceive a wide range of alternatives:
 - 48 per cent agreed that they could and would use other local newspapers;

- 35 per cent said that publications devoted to advertising were an effective substitute for local newspapers;
 - 50 per cent said that London-wide newspapers were an effective substitute; and
 - 53 per cent said that non-print media were an effective substitute.
52. These are large figures. Taken at face value, they suggest that, overall, rather more than half the respondents surveyed do feel there are effective substitutes for their current local newspapers. However, the questions do not provide a sense for what price rise would induce a move; nor do the final three questions (ie questions 11 to 13) assess whether respondents would, in fact, use other forms of media. Furthermore, these results can be compared with other results from the survey that suggest a smaller degree of substitution. As paragraph 8 in Appendix D points out, 16 per cent of customers (not all respondents) said that they would advertise in a different medium or would not advertise at all if their main (or only) Archant/INM newspaper was not available (half of this 16 per cent would advertise in a different medium with the other half not advertising at all). This much lower figure for substitutes among Archant/INM customers is broadly consistent with how customers said they would react to their critical price increase: 20 per cent of customers said they would use other non-print media. These differences between customers and all respondents should be noted when taking account of the following analysis.
53. To understand further what may be driving customers' reported unwillingness to withstand price increases, we examine the detail of respondents' perceptions of the availability of substitutes and whether there may be any relationship between the number of customers leaving as a result of a critical price increase and what they say are their alternatives to advertising in local newspapers.
54. In sum, we think that there might be a number of factors other than the availability of substitutes that might systematically affect respondents' reported critical price increases:
- *Whether respondents are INM or Archant customers.* In previous CC local newspaper merger inquiries that have made use of survey data (particularly Newsquest/INM), it has been suggested to us that the opinions of non-customers should be canvassed as well as those of customers.²⁵ To take this suggestion into account we make use of a question in our survey that asks respondents whether they are INM or Archant customers.
 - *Respondents' total expenditure on local newspaper advertising.* We might expect that respondents' sensitivity to price increases in local newspaper advertising could differ systematically depending on their annual advertising expenditure (for example, they may negotiate better prices). To allow for this, we make use of two questions in our survey that ask for respondents' best estimates of their total annual advertising expenditure and what percentage of this was spent in local weekly newspapers. The product of respondents' answers to these two questions gives an estimate of their advertising budget for local, weekly newspapers.
 - *Whether respondents are advertising or media-buying agencies.* It is likely that respondents who are agencies will be spending more on local newspaper advertising than non-agency respondents. Moreover, coupled with this, we

²⁵We understand that the possible concern is that a customer-only sample may under-represent marginal customers at the expense of average customers. The price sensitivity of marginal customers is what determines the boundaries of the relevant geographic and product markets but the role of the marginal customer can differ when there is price discrimination.

expect that they may be advertising across a broader spectrum of media than non-agency respondents, which might mean that they are in a position to swap their clients' advertisements between and within different media in a way that non-agency advertisers are not, to secure a better deal. To allow for this, we make use of a question in our survey that identifies whether respondents are national or regional advertising/media-buying agencies, or not.

- *Category of advertising.* The marked, persistent differences in yields between categories presented in Table 1 might be consistent with there being separate, relevant product markets for different categories of advertising. To allow for this, we make use of a question in our survey that identifies which categories best describe the type of advertising that respondents place.²⁶
 - *Geographic area.* Appendix D on the geographic market suggests that the scope of the relevant geographic market could be wider than the circulation 'footprint' of any individual former-INM title acquired by Archant. In so far as the former-INM divisions (ie East London, North London, North West London, Kent and Post) might be separate, relevant geographic markets, there is no reason for us to expect that the sensitivity of respondents in each division to increases in the cost of advertising in local newspapers will be the same. Consequently, we use advertisers' responses to questions that ask about respondents' main geographic area of advertising to allow for these possible systematic differences.
55. An idea of how responses to these product market definition questions vary across areas of London and categories of advertising is presented in Table 6 (for areas of London) and Table 7 (for categories of advertising), which also show respondents' reported critical price increases. The total figures suggest that most respondents think non-print media are substitutes for local newspaper advertising and that most respondents do not think advertising-only titles are. Large numbers (though not the majority) of respondents also appear to think that other local newspapers and the *Evening Standard* and *Metro* are substitutes. Taken at face value, these results could suggest that the relevant product market may be wider than local, weekly newspapers only (but see the discussion in paragraph 52).
56. The tables show some differences in respondents' attitudes towards the suitability of different products as substitutes for advertising in their local newspaper according to which category of advertising respondents use, but few apparent differences according to which part of London respondents advertise in. They also appear to indicate that there may be corresponding differences in respondents' reported critical price increases, although such is the variability in reported critical price increases that it is hard to tell from simply tabulating the data.
57. Differences in respondents' attitudes towards substitutes according to the category of their advertising that correspond to differences in reported critical price increases might be consistent with there being separate relevant product markets for different kinds of advertising. The aim of our statistical analysis is to determine whether these apparent differences are systematic or not. If these differences are systematic, then different substitutes would appear to exert differing levels of competitive constraint on the prices paid by advertisers in various categories and locations.
58. Twenty-two of our 355 respondents (ie 6 per cent) disagreed (either slightly or strongly) that any of the media mentioned in questions 10 to 13 were effective

²⁶Respondents mentioned 21 categories of advertising in response to this question. However, over 95 per cent of responses are in five categories: property, motors, recruitment, retail and entertainment. We include all other categories mentioned as 'other' (the largest of which is travel).

substitutes for advertising in local newspapers, 21 of whom were Archant/INM customers.²⁷ The median reported critical price increase for these respondents was twice as high as overall, 20 per cent. Of these 22, 3 were property advertisers, 3 motor advertisers, 7 recruitment advertisers, 4 retail advertisers, 2 entertainment advertisers and 3 were other advertisers. Of these 22, 16 advertised in East London and/or Essex.²⁸ A proportion of 'trapped' customers of this order (even apparently concentrated among recruitment advertisers in the former-INM East London and Post divisions) would not be large enough to make a 5 per cent price increase profitable but we refer to our discussion in paragraph 52.²⁹

59. As noted above, some respondents have given multiple responses to one or more of these questions, as can be seen from the two tables (ie the sum of responses over divisions and categories of advertising is greater than the total number of responses). This means that some advertisers are advertising in more than one category and/or more than one division. For example, recruitment advertisers in the Post division might also advertise jobs in East London. Or motor advertisers in the Post division might also be placing advertisements for car rentals there (ie for trade services). This will limit the scope to discriminate between the competitive constraints imposed by the availability of various substitutes.

²⁷Just six respondents disagreed strongly that every other product mentioned was a substitute.

²⁸Nine advertised in both areas, two advertised in East London only and five advertised in Essex only.

²⁹Specifically, the figures in paragraph 8 in Appendix D might imply that there is a much higher proportion of 'trapped' customers.

TABLE 7 Proportion of survey respondents identifying other local newspapers (Q10), advertising-only publications (Q11), the *Evening Standard* and *Metro* (Q12) and non-print media (Q13) as substitutes for advertising in local newspaper, and critical price increase (Q22), by former-INM division

Division	Responses		Q10—other local newspapers				Q11—advertising-only titles				Q12—London-wide papers				Q13—non-print media				Average critical price increase %*	Median critical price increase %
	Customer	Not	Net agree No	%	Net disagree No	%	Net agree No	%	Net disagree No	%	Net agree No	%	Net disagree No	%	Net agree No	%	Net disagree No	%		
East London	151	28	101	56.5	46	25.7	63	35.2	98	54.7	96	53.6	67	37.4	97	54.2	60	33.5	17.5 (16.7)	10
North London	162	10	105	61.0	42	24.5	46	26.8	106	61.7	74	43.1	81	47.1	75	43.7	76	44.2	16.5 (15.0)	10
North West London	45	4	31	63.3	5	10.2	11	22.5	31	63.3	29	59.2	16	32.7	28	57.1	17	34.7	15.9 (19.5)	10
Kent	102	28	73	56.1	26	20.0	39	30.7	79	60.8	79	60.8	41	31.6	77	59.2	41	31.6	16.7 (15.0)	10
Post	81	19	52	52.0	26	26.0	32	32.0	55	55.0	59	59.0	33	33.0	58	58.0	34	34.0	17.0 (15.9)	10
Total†	275	80	171	48.2	78	22.0	125	35.2	189	53.3	177	49.9	145	40.9	189	53.2	125	35.2	17.0 (15.3)	10

Source: CC calculations based on Synovate survey.

*Standard deviations in parentheses.

†Responses for customers sum to more than 275—and to more than 80 for non-customers—over former-INM divisions because some respondents advertise in more than one division.

TABLE 8 Proportion of survey respondents identifying other local newspapers (Q10), advertising-only publications (Q11), the *Evening Standard* and *Metro* (Q12) and non-print media (Q13) as substitutes for advertising in local newspaper, and critical price increase (Q22), by category of advertising

Category	Responses		Q10—other local papers				Q11—advertising-only titles				Q12—London-wide papers				Q13—non-print media				Average critical price increase %*	Median critical price increase %
	Customer	Not	Net agree No	%	Net disagree No	%	Net agree No	%	Net disagree No	%	Net agree No	%	Net disagree No	%	Net agree No	%	Net disagree No	%		
Property	53	28	38	47.0	19	23.5	40	49.4	34	42.0	43	53.1	31	38.3	50	61.7	23	28.4	15.7 (12.9)	10
Motors	22	16	15	39.6	8	21.0	19	50.0	14	36.9	18	47.4	17	44.7	22	57.9	9	23.7	12.7 (11.9)	10
Recruitment	104	28	65	49.2	23	17.5	41	31.0	73	55.3	79	59.9	41	31.1	71	53.8	45	34.1	18.5 (18.7)	10
Retail	33	1	17	50.0	10	29.4	9	26.5	19	55.9	16	47.1	16	47.1	18	52.9	12	35.3	15.0 (12.9)	10
Entertainment	32	10	19	45.3	8	19.1	6	14.3	31	73.9	25	59.6	15	35.7	25	59.6	14	33.4	16.8 (15.6)	10
Other†	69	6	36	48.0	16	21.3	23	30.6	44	58.6	25	33.3	40	53.3	31	41.3	35	46.7	16.4 (12.9)	10
Total‡	275	80	171	48.2	78	22.0	125	35.2	189	53.3	177	49.9	145	40.9	189	53.2	125	35.2	17.0 (15.3)	10

Source: CC calculations based on Synovate survey.

*Standard deviations in parentheses.

†Includes travel; charities; childcare; IT; private tuition; domestic, financial, professional, trade and other services; health & beauty; hotels; leisure; publishing and wholesale.

‡Responses for customers sum to more than 275—and to more than 80 for non-customers—over categories of advertising because some respondents advertise in more than one category.

60. Full statistical results of our analysis are given in section 8. Because of some omissions in the survey data (ie non-response), the number of advertisers' responses used in our analysis is 254. Our results indicate that the factors that best account for respondents' reported price sensitivity are:
- whether they are national advertising or media-buying agencies; and
 - whether they would have switched to other non-print media or stopped advertising should their most used local newspaper title not have been available in 2003.
61. Specifically, respondents' price sensitivity does not appear to be affected by the areas of London in which they advertise, the categories in which they advertise or their views on the substitutability of various substitutes, as well as the other factors mentioned in paragraph 54.
62. However, we do not think this disproves that these products may be part of the same relevant market. Archant has suggested that substitution patterns in the market are complex and considers it unsurprising that a relatively limited statistical analysis cannot pick up the precise effects of each individual medium. We think that the survey evidence reported here appears to be consistent with some alternative media imposing a similar competitive constraint to other alternative media and we think the fact that we have not been able to identify each alternative as having a statistically significant effect individually is not inconsistent with this survey evidence.

6. Customers' expected effect of the acquisition

63. We also asked customers for their views on the likely impact of the merger. 77 per cent thought the merger would have no effect, with 8 per cent thinking it would have a positive effect, and just 2 per cent expecting it to have a negative effect. The proportion of customers thinking the merger would have a negative effect was very low in all areas, ranging from 0 per cent in Kent to 3 per cent in the Post area and 4 per cent in East, North and North West London.

7. Summary

64. This appendix presents a number of pieces of information about the boundaries of the product market. There are marked and persistent differences between the yields for different types of advertisements. This might be taken to suggest that each main category of advertisement is a different market. However, there would seem to be easy supply-side substitution between the different advertisements. Archant has provided some other reasons for the marked differences in prices, although our view is that it is unlikely that they are sufficient to explain all the differences between the yields.
65. Most of the other evidence available suggests that Archant will not have sufficient market power to raise prices to a level that would cause concern.
66. First, when asked what price would lead them to stop advertising in local newspapers, 23 per cent of the customers surveyed said that they would stop for a price rise of 5 per cent or less; correspondingly, 77 per cent said that they would not stop for a price rise of over 5 per cent. There is some evidence that the larger suppliers are more price-sensitive, so more than 23 per cent of revenue would move for a price rise of 5 per cent or less. Archant says that less than 10 per cent of its

costs are variable, so the reduction in costs associated with a fall-off in volume is very small.

67. The appropriate interpretation of this point depends how far we think a monopoly supplier of local newspapers is able to assess correctly customers' reservation price at which they would stop using local newspapers, and set its own price just below that level. If it could do this, the survey results suggest that it could increase prices on average by 5 per cent profitably. On the other hand, if there is limited scope to price-discriminate, so the local newspaper supplier has to settle for something close to an across-the-board 5 per cent price rise, then this would not be profitable. There does not appear to be any clear evidence that Archant can target profitably an average price increase of 5 per cent.
68. Secondly, over 50 per cent of respondents surveyed said that other media were effective substitutes for their local newspaper, although the proportion of customers seeing other media as effective substitutes appears to be lower.
69. Thirdly, there was a striking lack of concern about the merger—only 2 per cent of the customers surveyed thought that the merger would have a negative effect, while 8 per cent thought it would have a positive effect and 77 per cent thought it would have no effect.
70. Fourthly, we did a wide range of tests to look for evidence of market power in all or part of the market, and did not find any positive results. Given the variation in yields for the different categories of advertising, and the lack of demand-side substitutability, we looked in particular for evidence of market power for particular categories. The high level of yields for recruitment and public notices suggests that the market power of local newspapers might be greatest for these sectors. However, we found no evidence that market power was particularly strong in these sectors,³⁰ in particular:
 - the critical price increases reported for the different types of advertisers were not significantly different, and the statistical analysis confirms that respondents' price sensitivity does not appear to be affected by the types of advertisements placed; and
 - the relationship between yields and concentration was no stronger for particular types of advertisements than for aggregate yields and concentration.³¹

8. Statistical results

71. The sample used in our statistical analysis is 254 respondents and not 355 because some respondents did not give answers to some of the questions upon which we have based our independent variables. The composition of this sub-sample of 254 respondents—in terms of their responses to the relevant survey questions—does not appear to be systematically different from all 355 respondents, however.
72. Our statistical analysis is a two-way analysis of variance (ANOVA). It analyses the variables that were recorded in the survey and that explain price sensitivity. Price sensitivity has been measured by mapping responses to the question (Q22) asking the price rise at which advertisers would stop using the local press on to a scale of 0

³⁰We did not survey public authorities, so do not have survey results for Public Notices.

³¹We used aggregate concentration for all types of advertisements for this analysis, as we did not have concentration by type of advertisement. We did not have changes in yields, so related yield levels to levels of concentration.

to 100, where 100 points represents extreme sensitivity and 0 points represents no sensitivity.³² Sensitivity to price changes of 5 or 10 per cent score 60 and 37 points, respectively.

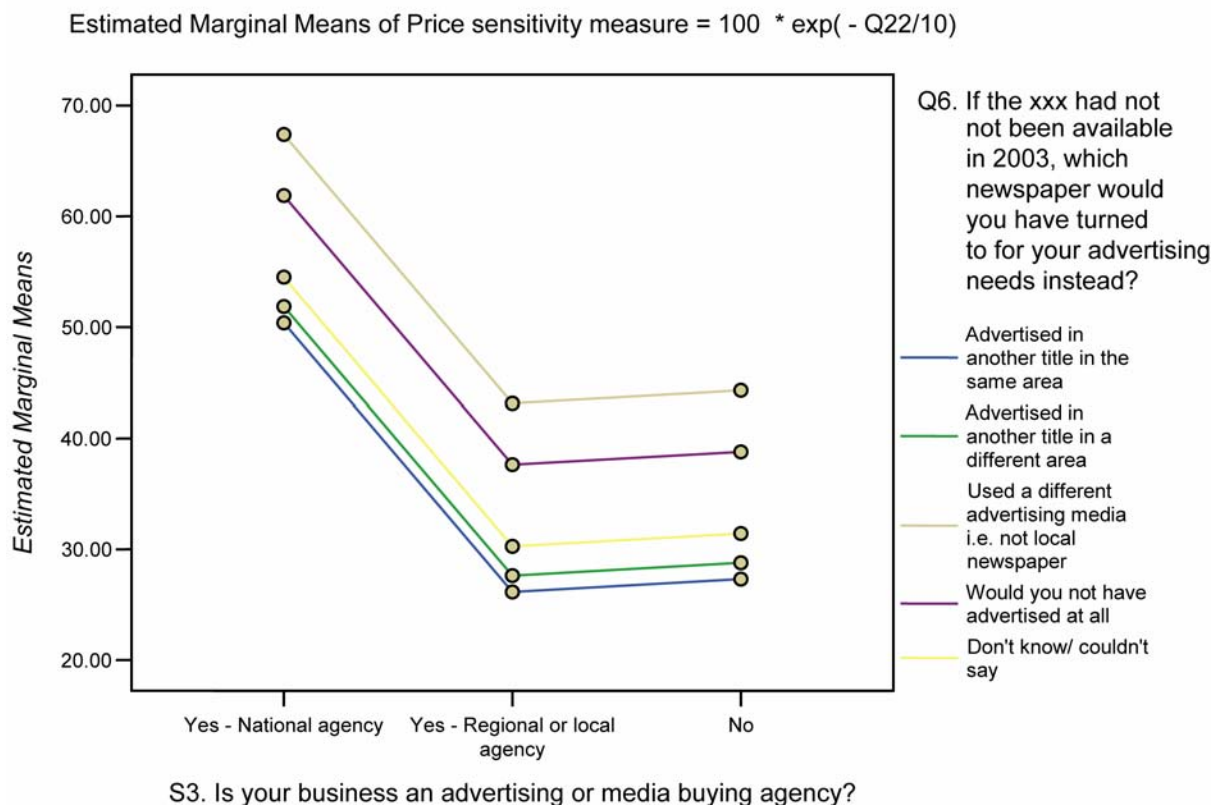
73. The results show that there are two factors that differentiate price-sensitive advertisers:
- whether they are national advertising or media-buying agencies; and
 - whether they would have switched to other non-print media or stopped advertising should their most-used local title not have been available in 2003.
74. Although we might have expected price sensitivity to be explained by the type of advertisement placed, we could not test this as all types of advertisement placed by advertisers were recorded, not just the most usual type of advertisements placed, so that answers to this question do not adequately differentiate advertisers by the type of advertisement.³³
75. This is because respondents were asked what they advertised mainly (for example, property, motors) and although interviewers probed for the main type of advertisement, they also recorded others. As a result, respondents were not uniquely associated with one type of advertisement. A two-step cluster analysis was able to identify different groups of advertiser based on their responses and when these groups were compared with the advertisers' reported categories of advertisement, it was possible to differentiate those that were advertising jobs and property from other advertisers. Those advertising motors were not a distinct group, possibly because these respondents also advertised motor-related services that fell into other categories (for example, car rental), as well as advertising for their own staff. Hence, despite the limitations of the survey, it was possible to identify these two important groups of advertisers, and to test whether their price sensitivity was significantly different from one another and from the others. However, no significant differences were found.
76. Our results are summarized in Figure 1, which shows the mean score of the price sensitivity measure for each group of respondents (known as the marginal mean) on the vertical axis. The figure shows that national agencies are the most price-sensitive advertisers. It also shows that those that would use different media (top line) or would not have advertised at all (second from top line) are more price sensitive than others, particularly those that would have switched to another local title.

³²The transformation is $100 \times \exp(-\text{critical price increase}/10 \text{ per cent})$. We have transformed our dependent variable because its distribution is highly skewed. We experimented with other transformations of our dependent variable (for example, logarithmic) but they did not produce qualitatively different results.

³³We also tried to test whether the interaction of type of advertisement and other factors explained price sensitivity but our models had too many parameters.

FIGURE 1

Results of two-way ANOVA analysis of survey respondents' reported critical price increases



77. Table 9 contains the detailed ANOVA results, revealing that the effects identified in Figure 1 are statistically significant.

TABLE 9 Tests of between-subjects effects

Source	Type III sum of Squares	df	Mean square	F	Sig*
Corrected model	13533.459†	6	2255.576	3.624	0.002
Intercept	73848.566	1	73848.566	118.667	0.000
S3‡	7411.190	2	3705.595	5.954	0.003
Q6§	7663.236	4	1915.809	3.078	0.017
Error	153712.867	247	622.319		
Total	418951.337	254			
Corrected total	167246.326	253			

Source: CC calculations based on Synovate survey.

*Values in this column that are less than 0.05 indicate that the source effect is statistically significant.

†R Squared = .081 (adjusted R squared = .059).

‡S3. Is your business an advertising or media-buying agency?

§Q6. If the xxx had not been available in 2003, which newspaper would you have turned to for your advertising needs instead?