Radio Advertising Market Research

Assessment of the constraints on the price of direct and indirect radio advertising

Publication date: 19 October 2006
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**Market Research Report - Harris Interactive (published separately)**

**Market Research Report - Human Capital (published separately)**
Section 1

Executive Summary

1.1 Ofcom is the independent regulator and competition authority for the UK communications industries. Ofcom undertook this research to develop its understanding of the radio advertising industry and the competitive constraints faced by suppliers of radio advertising airtime. In particular Ofcom was interested in understanding the extent to which pricing in radio advertising markets appears to be affected by other media.

1.2 The Competition Commission last examined the provision of radio advertising in May 2003. Since this time the radio and advertising industry has developed in a number of ways which may have affected the competitive landscape. These developments include:

- a decline in commercial radio advertising revenue;
- the BBC’s increased market share of radio listening;
- the growth in DAB digital radio penetration;
- online and outdoor advertising growth; and
- a decline in press circulation.

This research allows Ofcom to examine the radio advertising industry in the light of these changes.

1.3 Ofcom conducted a survey based programme of qualitative and quantitative research. The research allowed Ofcom to analyse which media appear to impose the strongest competitive constraint on the pricing of radio advertising. In addition, it outlines the drivers of demand for radio advertising, the decision-making process for media purchasing, advertisers’ attitudes towards radio in the context of other media options, and the impact on the demand for radio advertising following an increase in the relative price of radio advertising.

1.4 In its submissions to the OFT in relation to recent radio mergers, Ofcom has defined two separate radio advertising markets; direct and indirect.

- Direct radio advertising occurs where the advertiser purchases airtime by approaching the sales teams at individual radio stations separately.
- Indirect radio advertising occurs where an advertiser uses a media buying agency to manage its purchase of advertising on radio stations via a radio group’s advertising sales house.

In this research the constraints faced by suppliers of direct radio advertising and indirect radio advertising have been assessed separately.

1.5 Findings from the analysis of direct radio advertising include:

- The pricing of direct radio advertising appears to be constrained by press advertising. As a result, a hypothetical monopoly supplier of direct radio
advertising would not find it profitable to raise prices by 5-10% for a sustained period of time. This result appears to be robust to a range of sensitivity analyses.

- Evidence suggests that direct radio advertisers perceive radio and press advertising as interchangeable.

1.6 Findings from the analysis of indirect radio advertising include:

- Television, online and press advertising pose the strongest competitive constraints on the pricing of indirect radio advertising.

- An increase in the price of indirect radio advertising would result in media buying agencies moving budgets away from radio to a range of alternative media. These alternative media taken together appear to collectively constrain the pricing of indirect radio advertising. As a result, a hypothetical monopoly supplier of indirect radio advertising would not find it profitable to raise prices by 5-10% for a sustained period of time.

- Media buying agencies appear to have a degree of countervailing buyer power, and therefore, would be likely to try and negotiate down any attempted increase in the price of indirect radio advertising.

1.7 The conclusions of this study are intended to act as a starting point for Ofcom in cases where an understanding of the radio advertising industry and the competitive constraints faced by radio advertising is required. In the context of a complaint, dispute, market review or in providing submissions to the OFT in relation to mergers the precise scope of the relevant product and geographic market would need to be assessed based on the specific circumstances and facts of the particular case in question.
Section 2

Introduction

2.1 Ofcom is the sectoral regulatory authority for the radio industry. As sectoral regulator, Ofcom has a number of competition related functions and duties:

2.1.1 Ofcom has concurrent powers with the OFT under the Competition Act 1998 (the “Competition Act”) to deal with anti-competitive agreements and conduct by applying Article 81 and Article 82 of the EC Treaty and the Chapter I and Chapter II prohibitions of the Competition Act;

2.1.2 Ofcom also has powers to make a market investigation reference to the Competition Commission where it has reasonable grounds for suspecting that a feature or combination of features of the market in the UK prevents, restricts or distorts competition;

2.1.3 In addition, Ofcom has powers to use conditions in various licences under the Broadcasting Act 1990 and 1996 (the "Broadcasting Acts") to ensure fair and effective competition in the provision of licensed services and connected services;

2.1.4 More generally, Ofcom has a number of duties under the Communications Act 2003. It is Ofcom’s duty to further the interests of consumers in relevant markets where appropriate by promoting competition, and to have regard in carrying out its duties to a number of elements as relevant in the circumstances, including the desirability of promoting competition in the relevant markets; and

2.1.5 Although the OFT has responsibility for merger control in the UK, Ofcom may also be asked by the OFT to provide it with Ofcom’s views on a merger or proposed merger in areas where Ofcom has sector specific knowledge.

2.2 It is important for Ofcom to have a strong evidence base for all areas of its remit. Hence Ofcom has undertaken this study in order to allow it to develop a robust, evidence-based understanding on how purchases decisions regarding advertising in radio are made, what factors influence that decision and the extent to which pricing in radio advertising markets appears to be constrained by other media.

2.3 In order to understand these issues, Ofcom undertook a detailed, survey-based programme of qualitative and quantitative research. The research sought to understand the drivers of demand for radio, the media purchase decision-making process, the attitudes towards radio in the context of other media, and the extent to which:

---

1 In the absence of available market data on pricing and switching, the analysis has been conducted using evidence from a market research survey. The SSNIP (small but significant non-transitory increase in price) test methodology adopted by Ofcom necessitated asking respondents what their reactions would be to a hypothetical industry-wide price increase. Survey responses given to hypothetical questions should be treated with caution and the methodological limitations of Ofcom’s approach are set out in section 7.9. The results are presented acknowledging this fact. The research also measured attitudes and behaviours of radio advertising purchasers, which appear to be consistent with responses given to the SSNIP test questions. In conducting analysis in the context of a specific case, Ofcom would ideally where possible seek to use available information on actual switching behaviour alongside any survey results.
which other media constrain the price of radio advertising, including how advertisers and media buyers (on behalf of their advertising clients) would react to an increase in the relative price of radio advertising. The research gathered the data required to allow Ofcom to analyse what media appear to impose the strongest competitive constraint on the pricing of radio.²

2.4 The provision of radio advertising was last examined by the Competition Commission in May 2003 in the context of the proposed merger between Scottish Radio Holdings plc, GWR Group plc and Galaxy Radio Wales and the West Ltd³ and more recently by the OFT in the context of the proposed merger between Capital Radio plc and GWR Group plc⁴ in December 2004 and the acquisition by Emap plc of Scottish Radio Holdings plc⁵ in August 2005. Ofcom has taken the opportunity to undertake this project outside the context and associated statutory time limits of a merger investigation, enabling Ofcom to conduct its research and analysis over a longer timeframe.

2.5 The radio advertising industry in the UK has undergone a number of developments since the Competition Commission last examined the provision of radio advertising in May 2003 which may have contributed to a change in the competitive landscape. Some of the key factors include, but are not limited to:

2.5.1 the increasing listening share of the BBC relative to the commercial radio sector;
2.5.2 a decline in commercial radio advertising revenue;
2.5.3 the increasing development and penetration of DAB digital radio;
2.5.4 the growth in online and outdoor advertising; and
2.5.5 a decline in press circulation.

2.6 The conclusions contained in this report are intended to constitute Ofcom’s starting point in cases where an understanding of the competitive constraints faced by radio advertising is required - whether in the context of a complaint, dispute, market review or in providing submissions to the OFT in relation to mergers. The conclusions do not propose to define the boundaries of the relevant product market. The precise scope of the relevant product market for direct and indirect radio advertising would need to be assessed based on the specific facts and circumstances of the particular case being examined.

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² We have analysed the constraint imposed on the pricing on radio by other media by applying the hypothetical monopolist test. This test is a useful economic tool which considers whether a hypothetical monopolist supplier of the product or group of products in question (in the present case radio advertising airtime) would find it profitable to raise prices by a small but significant proportion for a sustained period of time. If this course of action is shown to be unprofitable for the hypothetical monopolist, this suggests that the product or group of products in question place a competitive constraint on the price of radio advertising airtime. This test is also known as the SSNIP test (small but significant non-transitory increase in price). This is further explained in section 5.1.
³ The Competition commission report can be found at: http://www.competition-commission.org.uk/rep_pub/reports/2003/479radio.htm
⁴ The OFT decision can be found at: http://www.oft.gov.uk/NR/rdonlyres/5BCB63D8-3F5F-47AD-B5BE-63834E977AFC/0/capital.pdf
⁵ The OFT decision can be found at: http://www.oft.gov.uk/NR/rdonlyres/0A5349EE-0001-454A-860F-C4E03326F0F9/0/Emap.pdf and Ofcom’s statutory assessments can be found at: http://www.ofcom.org.uk/media/news/2005/08/nr_20050808
2.7 This report does not assess the constraints faced by suppliers of radio advertising in one area from suppliers of radio advertising and other forms of media in different geographic areas. The constraints faced by suppliers of radio advertising from suppliers of radio advertising in other areas and from alternative media may vary across the country and across regions. This report does not attempt to reach a view on the scope of the relevant geographic market.

2.8 A view on the product and geographic scope of the relevant market will, of course, need to be formed on a case by case basis by reference to the specific facts or circumstances of the particular case at hand.

2.9 Throughout this report a distinction is made between the two distinct methods through which radio advertising is sold: direct (or local) radio advertising, and indirect (or national) radio advertising. Direct advertising refers to the situation where the advertiser purchases airtime by approaching the sales team at each individual station, separately station by station. Indirect advertising refers to the situation where an advertiser employs the services of a media buying agency to manage its purchases of advertising on individual stations or clusters of stations, purchasing this airtime through a single point of sale (the radio group’s advertising sales house).

2.10 The rest of this report is structured as follows:

2.10.1 Section 3 provides a background description of radio advertising;

2.10.2 Section 4 describes how trading in radio advertising takes place;

2.10.3 Section 5 sets out the arguments why direct and indirect radio advertising are in separate relevant product markets;

2.10.4 Section 6 describes Ofcom’s method of analysis;

2.10.5 Section 7 sets out Ofcom’s approach and findings from the quantitative ‘hypothetical monopolist’ test analysis in respect of direct radio advertising, combined with the findings from other quantitative and qualitative survey evidence; and

2.10.6 Section 9 presents the same analysis as Section 8 but in relation to indirect radio advertising.

2.10.7 The appendices contain some of the detail of Ofcom’s hypothetical monopolist test analysis conducted for direct and indirect radio advertising.

2.10.8 The market research reports based on the surveys conducted by independent market research consultancies are included as supporting documents. Supporting document volume 1 contains Harris Interactive’s market research report on direct and indirect radio advertising. Supporting document volume 2 contains Human Capital’s market research report of indirect advertising.
Section 3

Background to radio advertising

3.1. Brief overview of the advertising industry

3.1 Advertising is an important market as it constitutes one of the major means of funding for the media industry. The advertising industry also plays an important role in the economy, as it provides one of the means for companies in different sectors to compete with each other for consumer spend.

3.2 Total advertising expenditure has increased over time, and it now constitutes a non-negligible share of UK GDP. In 2005, total advertising expenditure was almost £18 billion\(^6\), or around 1.6% of GDP.

3.3 Although press and TV remain the two major media in terms of total advertising expenditure, the mix of advertising media has been changing over time and new media have come into play.

3.4 As shown in Table 1 below, media such as direct mail, outdoor, radio and cinema have gained market share of total display advertising expenditure to the detriment of press and TV advertising. Internet advertising, which first appears in advertising statistics in the second half of the 1990s, has experienced very strong growth.

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</tr>
</thead>
<tbody>
<tr>
<td>Display press</td>
<td>40.7%</td>
<td>39.1%</td>
<td>37.7%</td>
<td>37.5%</td>
<td>36.5%</td>
<td>35.9%</td>
<td>35.7%</td>
<td>33.6%</td>
<td>32.0%</td>
<td>31.1%</td>
<td>29.6%</td>
</tr>
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<td>Television</td>
<td>36.9%</td>
<td>36.3%</td>
<td>36.2%</td>
<td>36.6%</td>
<td>36.4%</td>
<td>35.6%</td>
<td>33.2%</td>
<td>34.1%</td>
<td>33.1%</td>
<td>32.9%</td>
<td>32.7%</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>13.3%</td>
<td>15.1%</td>
<td>16.0%</td>
<td>15.1%</td>
<td>15.8%</td>
<td>15.7%</td>
<td>17.6%</td>
<td>18.6%</td>
<td>18.7%</td>
<td>17.5%</td>
<td>16.1%</td>
</tr>
<tr>
<td>Outdoor &amp; Transport</td>
<td>4.8%</td>
<td>5.0%</td>
<td>5.3%</td>
<td>5.6%</td>
<td>5.5%</td>
<td>6.2%</td>
<td>6.3%</td>
<td>6.4%</td>
<td>6.9%</td>
<td>7.0%</td>
<td>7.1%</td>
</tr>
<tr>
<td>Radio</td>
<td>3.5%</td>
<td>3.7%</td>
<td>3.8%</td>
<td>4.2%</td>
<td>4.3%</td>
<td>4.6%</td>
<td>4.3%</td>
<td>4.3%</td>
<td>4.4%</td>
<td>4.3%</td>
<td>3.9%</td>
</tr>
<tr>
<td>Cinema</td>
<td>0.8%</td>
<td>0.8%</td>
<td>0.9%</td>
<td>0.9%</td>
<td>1.0%</td>
<td>1.0%</td>
<td>1.3%</td>
<td>1.4%</td>
<td>1.4%</td>
<td>1.4%</td>
<td>1.3%</td>
</tr>
<tr>
<td>Internet</td>
<td>0.0%</td>
<td>0.0%</td>
<td>0.1%</td>
<td>0.2%</td>
<td>0.4%</td>
<td>1.2%</td>
<td>1.3%</td>
<td>1.5%</td>
<td>3.5%</td>
<td>5.8%</td>
<td>9.3%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Advertising statistics yearbook 2006
Note: includes production costs

3.5 On the supply side, there is a range of market players. While some players are only present in one medium, others have interests across different media (e.g. Emap across press and radio).

3.6 On the demand side, advertising is purchased by businesses across different sectors of the economy and products, such as consumables, durables, retail, government or services markets.

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\(^6\) At current prices, including display and classified advertising, and production costs. Total advertising expenditure excluding classified advertising and including production costs was over £13 billion in 2005.

\(^7\) The Advertising Association defines display advertising as all advertising excluding press classified advertising.
3.7 The media choice of advertisers appears to be driven by four key factors:

3.7.1 the campaign objectives;

3.7.2 the ability of individual media to reach the target audience;

3.7.3 the media coverage/reach (e.g. whether specific geographic reach or national); and

3.7.4 the campaign budget.

3.8 Ability to reach the target audience and suitability to campaign objectives appear from the research to be the two major drivers for the choice of media. Campaign objectives can dictate target audience, geographic coverage and budget. Budget is not always a primary consideration for advertisers (although it can be for smaller businesses), although the media must be cost-effective.8

3.2. Overview of radio advertising

Trends in radio advertising spend

3.9 As shown in Table 1 above, radio accounts for a small share of total advertising expenditure (just under 4%) following consistent increases in radio’s share of total display advertising expenditure in the late 1990s. Table 2 below shows that between 1995 and 2005, radio advertising revenues more than doubled, growing from £296 million to £579 million.9

Table 2: Total display advertising10 expenditure in the UK, £million

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<tr>
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<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>press</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Television</td>
<td>3,136</td>
<td>3,379</td>
<td>3,704</td>
<td>4,029</td>
<td>4,321</td>
<td>4,646</td>
<td>4,147</td>
<td>4,349</td>
<td>4,378</td>
<td>4,653</td>
<td>4,820</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>1,135</td>
<td>1,404</td>
<td>1,635</td>
<td>1,666</td>
<td>1,876</td>
<td>2,049</td>
<td>2,228</td>
<td>2,378</td>
<td>2,467</td>
<td>2,469</td>
<td>2,371</td>
</tr>
<tr>
<td>Outdoor &amp; Transport</td>
<td>411</td>
<td>466</td>
<td>545</td>
<td>613</td>
<td>649</td>
<td>810</td>
<td>788</td>
<td>816</td>
<td>914</td>
<td>986</td>
<td>1,043</td>
</tr>
<tr>
<td>Radio</td>
<td>296</td>
<td>344</td>
<td>393</td>
<td>460</td>
<td>516</td>
<td>596</td>
<td>541</td>
<td>547</td>
<td>584</td>
<td>606</td>
<td>579</td>
</tr>
<tr>
<td>Cinema</td>
<td>69</td>
<td>73</td>
<td>88</td>
<td>97</td>
<td>123</td>
<td>128</td>
<td>164</td>
<td>180</td>
<td>180</td>
<td>192</td>
<td>188</td>
</tr>
<tr>
<td>Internet</td>
<td>0</td>
<td>0</td>
<td>8</td>
<td>19</td>
<td>51</td>
<td>153</td>
<td>166</td>
<td>197</td>
<td>465</td>
<td>825</td>
<td>1,366</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8,510</td>
<td>9,311</td>
<td>10,233</td>
<td>11,018</td>
<td>11,874</td>
<td>13,068</td>
<td>12,492</td>
<td>12,752</td>
<td>13,217</td>
<td>14,130</td>
<td>14,723</td>
</tr>
</tbody>
</table>

Source: Advertising statistics yearbook 2006
Note: includes production costs

The supply of radio advertising

3.10 The number of commercial radio stations has almost doubled in the last ten years. There were 280 analogue commercial radio stations in 2005. However, a degree of consolidation has also taken place over the last few years, notably with the mergers

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8 Supporting document vol 1. For a description of the methodology of this research see section 6.
10 The Advertising Association defines display advertising as all advertising excluding press classified advertising.
between GWR/Capital and Emap/SRH. Therefore, audiences today are more fragmented across radio stations (but not across radio groups).

3.11 The major radio groups in the UK by share of radio advertising revenues are GCap, Emap/SRH and Chrysalis. As shown in table 3 below, together they account for almost 75% of UK radio advertising revenues.

Table 3: Share of UK radio advertising revenues 2005*

<table>
<thead>
<tr>
<th>Radio group</th>
<th>Percentage of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>GCap</td>
<td>34%</td>
</tr>
<tr>
<td>Emap/SRH</td>
<td>25%</td>
</tr>
<tr>
<td>Chrysalis</td>
<td>12%</td>
</tr>
<tr>
<td>GMG</td>
<td>5%</td>
</tr>
<tr>
<td>Classic Gold Digital Ltd</td>
<td>5%</td>
</tr>
<tr>
<td>Ulster Television</td>
<td>4%</td>
</tr>
<tr>
<td>The Local Radio Company</td>
<td>3%</td>
</tr>
<tr>
<td>SMG</td>
<td>2%</td>
</tr>
<tr>
<td>CN Group</td>
<td>2%</td>
</tr>
<tr>
<td>UKRD</td>
<td>2%</td>
</tr>
<tr>
<td>Lincs</td>
<td>1%</td>
</tr>
<tr>
<td>Sunrise</td>
<td>1%</td>
</tr>
<tr>
<td>Saga</td>
<td>1%</td>
</tr>
<tr>
<td>Tindle</td>
<td>1%</td>
</tr>
<tr>
<td>Kent Messenger</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Milestone</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Forward</td>
<td>Less than 1%</td>
</tr>
<tr>
<td>Other</td>
<td>3%</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>100%</strong></td>
</tr>
</tbody>
</table>

*Based on gross broadcasting revenue (GBR)
Source: Ofcom

3.12 Commercial radio stations derive the majority (around 86%)
\[11\] of their total revenues from the sale of airtime to advertisers and sponsors. As shown in table 4, advertising airtime sales account for approximately 86% of total net advertising revenue (NAR), with the remainder mostly accounted for by sponsorship and promotions.

\[11\] Source: Ofcom
Table 4: Commercial radio station net advertising revenues

<table>
<thead>
<tr>
<th></th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising revenues</td>
<td>84%</td>
<td>84%</td>
<td>86%</td>
</tr>
<tr>
<td>Sponsorships &amp; Promotions</td>
<td>16%</td>
<td>16%</td>
<td>14%</td>
</tr>
<tr>
<td>Total NAR</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Ofcom  
NAR = Net advertising revenue

3.13 Commercial production revenues are a very small proportion of the industry total.\textsuperscript{12}

3.14 Ofcom does not regulate the amount of airtime that radio stations can offer to advertisers. However, standard industry practice involves setting a “ceiling” for the number of minutes of advertising to be broadcast per hour: 9-12 minutes per hour is standard across the industry (although recently GCap has reduced the supply of radio advertising minutage by up to half on its London’s station Capital FM). This ceiling is driven by listeners’ reluctance to tolerate too much advertising, especially given the constraint imposed by the BBC which airs no advertising. This ceiling includes minutes of sponsorship and promotion airtime as well as “traditional” advertising.

3.15 Radio stations sell advertising airtime in two ways: either on a cost per thousand (CPT) basis, or as “spot” advertising. CPT refers to the cost for each thousand people that hear a 30 second advertisement at a certain time (e.g. a cost for each thousand people that hear a 30 second advertisement during next Monday’s breakfast show). Stations also sell spot advertising which gives a total cost to a particular period of airtime (e.g. 30 seconds during next Monday’s breakfast show).

3.16 Sponsorship and promotion (S&P) are relatively new commercial activities in radio. Industry revenue from these sources is growing quickly. Sponsorship tends to involve a higher level of presenter participation than is the case for traditional advertising. As a result, sponsorship tends to build a stronger relationship with the audience, and is often used by large advertisers on a long-term basis for brand building purposes. Promotions tend to be much shorter, typically lasting for a week or a weekend, and are more focused on immediate sales generation. S&P tends to be sold on the same basis as standard advertising, either on a CPT or spot basis.

3.17 While analogue radio generates the majority of commercial radio advertising revenues\textsuperscript{13}, the digital radio advertising market is still in its infancy, given the current relatively low listenership to digital services. However, the industry expects that revenues from digital services will increase over the coming years once penetration of digital radio sets and listening to digital services reach higher levels. Digital radio advertising is bought and sold on the same basis as analogue radio advertising. RAJAR\textsuperscript{14} captures all listening without differentiating between listening on analogue or digital. Consequently for many stations, analogue and digital radio advertising are effectively being sold together.

\textsuperscript{12} RAB, July 2004

\textsuperscript{13} In 2005, national and non-national commercial analogue radio net advertising revenues accounted for around £440 million while digital only net advertising revenues accounted for less than £4 million (source: Ofcom).

\textsuperscript{14} RAJAR (Radio Joint Audience Research Limited) is a company that operates a single audience measurement system for the UK radio industry – BBC, UK licenced and other commercial stations.
The demand for radio advertising

3.18 Radio advertisers range across different sectors of the economy. In 2005, the top radio spending sectors were motors, entertainment and media, and retail.\(^{15}\)

3.19 Radio advertisers also range in size from the Central Office of Information (COI) and Procter and Gamble who spend millions of pounds every year on radio advertising, to small local advertisers who spend less than one hundred pounds per year.

3.20 Table 5 below shows the radio advertising expenditure of the top ten radio advertisers in 2005. The top ten radio advertisers accounted for over 15% of total radio advertising expenditure in 2005.

<table>
<thead>
<tr>
<th>Advertiser</th>
<th>£,000s</th>
</tr>
</thead>
<tbody>
<tr>
<td>COI Communications</td>
<td>32,867</td>
</tr>
<tr>
<td>Unilever</td>
<td>10,252</td>
</tr>
<tr>
<td>British Sky Broadcasting</td>
<td>6,175</td>
</tr>
<tr>
<td>Abbey National</td>
<td>6,119</td>
</tr>
<tr>
<td>BT</td>
<td>5,886</td>
</tr>
<tr>
<td>Vodafone</td>
<td>5,602</td>
</tr>
<tr>
<td>Vauxhall Motors</td>
<td>5,548</td>
</tr>
<tr>
<td>Renault</td>
<td>5,442</td>
</tr>
<tr>
<td>Camelot Group</td>
<td>5,248</td>
</tr>
<tr>
<td>Procter &amp; Gamble</td>
<td>5,159</td>
</tr>
</tbody>
</table>

Source: Advertising Statistics Yearbook 2006

3.21 Evidence from the Harris Interactive and Human Capital market research reports (see supporting documents vol 1 and vol 2) suggests that radio’s major distinctive characteristics appear to be its wide audience/high penetration and its ability to target specific audience demographics and/or specific geographic regions. Other appealing characteristics include, among others, the frequency of opportunities to hear, the instant impact, the status symbol for local companies or the speed, short lead times and relatively low cost of advertising production.\(^{16}\) The potential drivers of demand for radio advertising set out above are explored in more detail in the

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\(^{15}\) Advertising Statistics Yearbook 2006

\(^{16}\) Supporting document vol 1 and supporting document vol 2. For a description of the methodology of this research see section 6.
Section 4

Trading radio advertising

4.1. Direct and indirect radio advertising

4.1 There are two principal routes to market for advertisers seeking to purchase radio advertising airtime:

4.1.1 “direct advertising”, where an advertiser approaches the sales team at each individual station, separately station by station. The industry typically refers to this type of purchase as “local advertising” as it is the approach generally used by local advertisers who wish to advertise on one or a small number of specific local stations.

4.1.2 “indirect advertising”, where an advertiser employs the services of a media buying agency to manage its purchases of advertising on individual stations or clusters of stations, purchasing this airtime through a single point of sale\(^{17}\) (the radio group’s advertising sales house). This is called “national advertising” by the industry as it is the method typically used by large advertisers who wish to advertise their product generally to customers across large parts of the country.

Market size – direct and indirect radio advertising

4.2 Indirect radio advertising accounts for a larger share of total radio advertising revenues than direct advertising. Table 6 below shows the split of radio advertising revenues for direct and indirect radio advertising.

Table 6: Direct and indirect radio advertising – net advertising revenues* (NAR)

<table>
<thead>
<tr>
<th>Year</th>
<th>Direct NAR</th>
<th>Indirect NAR</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>39%</td>
<td>61%</td>
<td>100%</td>
</tr>
<tr>
<td>2004</td>
<td>39%</td>
<td>61%</td>
<td>100%</td>
</tr>
<tr>
<td>2005</td>
<td>37%</td>
<td>63%</td>
<td>100%</td>
</tr>
</tbody>
</table>

Source: Ofcom
* Net advertising revenue excludes S&P and commissions

4.2. The sale and purchase of radio advertising airtime

4.3 Figure 1 is a stylised representation of the process by which radio advertising is sold. The role of each element in the process is discussed in greater detail below.

\(^{17}\) Though it should be noted that the advertiser will generally still pay a different price for airtime on each individual station that it buys from.
The advertiser

4.4 The advertiser is the primary source of a radio station’s income. As explained in paragraph 3.19, radio advertisers range substantially in size. Table 5 in Section 3 shows the advertising spend for the top 10 radio advertisers in 2005.\(^\text{18}\)

4.5 As described above, direct advertisers will tend to deal directly with their local radio station. Indirect advertisers will tend to employ the services of an advertising agency to manage their purchases of advertising on individual radio stations or clusters of stations, who would then purchase the airtime through the radio group’s advertising sales house.\(^\text{19}\)

4.6 Advertisers determine their overall advertising budget. Direct advertisers also decide how much of it they wish to spend on radio. For indirect advertisers this decision is likely to be made jointly with, or solely by the planners at an advertising agency, although some indirect advertisers will have more influence on the media mix than others.

Creative agencies

4.7 Indirect advertisers typically employ the services of creative agencies to take a lead role in developing the creative and branding strategy for an advertising campaign as well as designing and producing the advertisement. Creative agencies may also contribute to the formulation of an advertising client’s media strategy, together with

\(^{18}\) Table 5 shows that the Central Office of Information and Proctor and Gamble spent £33 million and £5 million in 2005 respectively.

\(^{19}\) The above does not hold true in all cases for national advertisers. In some cases, even though a large advertiser may use an agency to purchase the airtime, it may also have a direct relationship with a radio group’s sales house. For example, the sales house may pitch for business direct to an advertiser, who will then use a media buying agency to purchase the airtime from the sales house.
the media planners at media buying agencies, where certain creative ideas work better in one medium than another.

**Media buying agencies**

4.8 Indirect advertisers also generally appoint the services of a media buying agency to ensure that all elements of its advertising campaign are delivered in the most cost-effective way. The advertising client typically issues a media brief to the selected agency who responds with a media plan capable of satisfying the campaign objectives and a proposal for executing this plan in the most cost-effective way by buying the most appropriate media mix. Account executives and media planners liaise with the client and offer specialist advice and expertise as to how the client’s campaign objectives and target audience can be most effectively delivered. This typically includes advice as to the mix of advertising spend on different media. The relative levels of influence exercised by the client and the media buying agencies differ depending on the size, budget and sophistication of the advertiser with larger advertisers typically playing a greater role in the development of the media strategy and decision on the media mix. The process is iterative and subject to ongoing revisions and amendments to reflect changing market conditions.

4.9 Factors influencing the chosen media mix include, but are not limited to:

4.9.1 the campaign objectives;

4.9.2 the target audience;

4.9.3 the target geographic coverage;

4.9.4 the client business requirements;

4.9.5 the product type;

4.9.6 the relative prices of different media; and

4.9.7 the availability and characteristics of different media.

4.10 Once a media mix has been chosen, media buyers purchase advertising from media providers. Many agencies have Heads of particular media, who are responsible for the purchase of advertising and who typically negotiate agency-wide, client-specific or ad-hoc campaign by campaign deals with media providers where the agency enters into such agreements. In some agencies, the Heads of particular media are asked to provide advice by account executives and media planners before a final decision on the media mix is reached.

4.11 The overall media mix for a media buying agency is based on the sum of media mixes for all the individual campaigns across that agency’s portfolio of clients.

4.12 Media buying agencies may also in some cases contribute to the development of the advertising client’s creative strategy.

4.13 The formulation of media and creative strategies is therefore typically a collaborative exercise involving the indirect advertiser, the creative agency and the media buying agency.
4.14 As discussed above, smaller advertisers are unlikely to have the option of using a creative and/or media buying agency. This is for two reasons. First, it is not generally economically viable for agencies to take on the business of smaller, local advertisers as they commit relatively lower budgets towards media advertising than larger, national advertisers. Second, agencies tend to enter into advertising deals that are more sophisticated than the typical needs and requirements of smaller advertisers.

**The sales house**

4.15 A radio sales house is a single point of contact from which the radio group sells the airtime of a number of stations. The media buyer may buy airtime on one or more of the stations represented by the sales house. This provides convenience and a level of sophistication for a media buyer, and provides the individual radio station with more bargaining power than it would have if it sold advertising separately. A number of sales houses (such as GCap’s Opus) sell advertising on behalf of third party stations in addition to that of their own stations.

**The radio station**

4.16 A radio station can sell airtime on its own behalf, or its airtime can be sold from a central sales house (if a relationship exists either within the group or externally). As discussed above, smaller local advertisers are likely to demand spot advertising, and are more likely to deal directly with individual stations. Individual radio stations have their own sales staff and may also have some in-house creative staff. This provides the stations with flexibility and allows them to simplify the radio advertising process for smaller or less sophisticated advertisers as they can offer them a complete radio advertising solution, including for example the production of the advertisement, at one point of contact. Larger advertisers usually purchase airtime through media buying agencies, and therefore have no direct relationship with the individual radio station.

**4.3. Pricing of radio advertising**

4.17 The radio advertising price-setting process is relatively complex. Most radio groups or stations publish a form of “rate card” setting out list prices and reflecting differing levels of demand for particular stations and particular time periods. Although the structure of the rate card varies across the industry, there are a number of common demand factors which tend to be reflected in the rate card. These are:

4.17.1 station or grouping of stations;
4.17.2 season or month;
4.17.3 day of week;
4.17.4 time of day; and
4.17.5 early or late booking.

4.18 The amount paid for a slot on a station or grouping of stations will vary according to a number of factors including the size of the audience (as tracked and measured by RAJAR); the level of demand for advertising in the relevant catchment area (or Measured Coverage Area (MCA)); and the particular demographic that a station is targeting. Although over 90% of advertising airtime is traded on the basis of “all
adults\textsuperscript{20}, in practice the demographics of a particular station’s listenership will have an influence over the price charged for that station’s advertising airtime. For example, a station that targets a particular demographic which is highly valued by advertisers, would be likely to command higher advertising prices for that specific demographic than a station targeting all adults.

**Negotiation of discounts on published rate card prices**

4.19 While rate card prices are published by radio stations and radio sales houses and are therefore available as a source of information on prices, the rate card prices are not the actual prices paid by advertisers for radio airtime.\textsuperscript{21} This is because discounts off the rate card price are generally negotiated between the seller and the buyer. The size of the discount offered, in absolute and relative value terms, will depend on the relative bargaining power of the two parties to the transaction and on the method through which the advertising is purchased (i.e. direct or indirect). Although the starting price on individual stations is essentially the same for either route, as explained in paragraph 5.6 the final price paid by indirect advertisers will typically be lower than that paid by direct advertisers.

4.20 The more “important” an advertiser is, the bigger the discount it is likely to receive. Importance is not simply a matter of revenue from each advertiser as, for example, a local advertiser that advertises 52 weeks a year may be very important to specific local stations.

4.21 Direct advertisers, who do not use a media buying agency, tend to negotiate for themselves. However, indirect advertisers tend to use the services of a media buying agency to negotiate on their behalf.

4.22 Research indicates that negotiations between media buying agencies and radio group sales houses may lead to a number of different types of deals for radio advertising airtime:

4.22.1 supra-agency deals covering all the media buying activity carried out by a media buying holding group (e.g. Group M) with a specific sales house;

4.22.2 agency-wide “umbrella” deals lasting for a deal round (one year) and covering all media buying activity carried out by an agency with a specific sales house (such arrangements tend to take the shape of informal commitments as opposed to formal contractual agreements);

4.22.3 client-specific agency deals covering all the media buying activity conducted by an agency with a specific sales house on behalf of a particular client; and

4.22.4 ad-hoc deals negotiated between a media buying agency and a sales house on an individual campaign by campaign basis.\textsuperscript{22}

4.23 Research suggests that the two major types of deals concluded between media buying agencies and sales houses are:

\textsuperscript{20} Defined as individuals of 15 years old or older (“15+”).

\textsuperscript{21} This is supported by research which suggests that “all participants in the qualitative research felt that they could negotiate radio advertising prices and get a good deal”, see supporting document vol 1. For a description of the methodology of this research see section 6.

\textsuperscript{22} See supporting document vol 2. For a description of the methodology of this research see section 6.
4.23.1 volume deals where the agency commits to spending a certain amount of money with the specific sales house over the period of the deal; and

4.23.2 share deals where the agency commits to spending a certain proportion of its total radio advertising expenditure with the specific sales house over the period of the deal.\(^{23}\)

4.24 Larger media buying agencies tend to be able to negotiate bigger discounts for their clients because of the buying power conferred by the number of clients and value and share of spend that they represent. However, media buyers do not always negotiate for all of their clients together as they can sometimes secure a better deal for a large individual client by negotiating for them separately. Qualitative evidence indicates that media buying agencies will often (although not always) negotiate a rate up-front for radio advertising, based on projected radio advertising spend volume or share of spend, thereby eliminating the need to negotiate separately for each individual radio campaign.

4.25 Direct advertisers usually perceive that they negotiate a deal from the ‘standard’ rate card price, sometimes based on a relationship with the stations or because they perceive the station really wanted their business.\(^{24}\)

4.26 The discounts offered by stations or sales houses may take a number of forms including, but not limited to:

4.26.1 percentage discounts on the listed rate card price;

4.26.2 volume discounts based on the number of slots purchased;

4.26.3 percentage discounts on the cost on an advertiser’s last campaign or share of annual spend;

4.26.4 discounts based on a spend volume commitment over a set time period; and

4.26.5 discounts for early bookings.

4.27 Research suggests that many advertisers are not quoted a standard rate card price prior to negotiations and many of those that do negotiate down from a listed rate card price are not aware of the value of the discount agreed. Prices are also often communicated to advertisers or media buyers face-to-face (rather than on a written contract), further demonstrating the lack of reliance on a standard rate card.\(^{25}\)

**Bundling and parallel negotiation of advertising prices for clusters of stations**

4.28 Even if sales houses sell the airtime of a cluster of radio stations together, prices are negotiated separately for each radio station within that cluster. Nevertheless, the price for each individual radio station tends to be set in parallel and the airtime on the individual stations is sold as a bundle.

\(^{23}\) Supporting document vol 2. For a description of the methodology of this research see section 6.

\(^{24}\) Supporting document vol 1. For a description of the methodology of this research see section 6.

\(^{25}\) Supporting document vol 1. For a description of the methodology of this research see section 6.
Section 5

Direct and indirect radio advertising market definition

5.1 In previous competition cases relating to the consideration of radio mergers, the Competition Commission (CC) has found that local and national radio advertising constitute separate relevant product markets.

5.2 In its submissions to the OFT in relation to recent radio mergers, Ofcom has defined separate relevant product markets for direct and indirect radio advertising.\(^{26}\) Ofcom’s discussions with stakeholders in the past have indicated that the types of advertising bought under each of these two routes to market have separate and distinct product characteristics and different costs, and that switching between both routes would be costly.

5.3 The characteristics of indirect and direct advertising include:

5.3.1 Indirect advertisers:

a) typically buy a more sophisticated product;

b) buy radio advertising as part of nationwide cross-media campaigns which typically cover many stations, with radio in some cases being used to complement the messages delivered by other media;

c) buy airtime through media buying agencies and radio group advertising sales houses; agencies and national sales houses provide a cost-effective way of purchasing across numerous stations, providing a number of value added services to indirect advertisers; the extensive use of annual contracts gives a degree of buying power to the indirect advertisers/media buying agencies relative to radio advertising sales houses/radio stations; and

d) the prices they pay are typically based on commercial impacts delivered, i.e. a CPT basis\(^{27}\).

5.3.2 Direct advertisers

e) do not normally run sophisticated cross-media campaigns, therefore using agencies is unlikely to be cost-effective for direct advertisers; agencies are typically not interested in providing services to such local advertisers either as it is not cost-effective.

f) typically target a relatively small geographic area using one or a small number of stations only;

g) buy spots\(^{28}\) of airtime rather than commercial impacts; and

\(^{27}\) CPT refers to the cost for each thousand people that hear a 30 second advertisement at a certain time (e.g. a cost for each thousand people that hear a 30 second advertisement during next Monday’s breakfast show).
h) do not generally make use of annual contracts with radio stations.

5.4 Switching between direct and indirect purchases is theoretically possible. However, in practice this is relatively rare because of the presence of barriers to switching. A direct buyer switching to indirect purchasing to avoid a price increase applied to direct advertisers only might in principle gain from the lower prices for airtime paid by a media buying agency. However, Ofcom has been informed in the past that this benefit is likely to be more than offset by the fees and commission that the agency would be likely to charge the advertiser (if, indeed the advertiser were to be accepted as a client at all) to cover the additional costs of servicing small advertisers. The indirect channel is in general designed to deal with large scale advertisers.

5.5 Similarly, if an indirect advertiser was to switch to the direct route to market in order to avoid a price increase applied to indirect advertisers only, it is likely to have to contract separately with a large number of stations, which is likely to lead to high transaction costs. In addition, the indirect buyer may lose the benefit of the bargaining power that the agency has through contracting across numerous stations at once. Therefore, even if faced with a price increase, it appears that the advantages derived from purchasing advertising through a media buying agency and dealing with a station’s sales house would outweigh the disadvantages arising from the price increase, and thus switching to the direct channel would be unlikely. The direct channel is in general appropriate for smaller scale advertisers.²⁹

5.6 Ofcom has examined separately the discounts to rate card prices received by direct and indirect advertisers. This analysis has indicated that indirect advertisers generally receive larger discounts than direct advertisers³⁰. The difference in discounts suggests that radio stations may be able to price discriminate between different buyers to some extent. At the limit, this could mean that there are in fact distinct markets for each individual buyer. However, assessment on the basis of individual buyer markets is unlikely to be practical or appropriate. In addition, Ofcom considers that differential discounts are more accurately characterised as countervailing buyer power, reflecting the ability of individual advertisers to negotiate prices.

5.7 A further consideration is that it does not appear to be possible to arbitrage between routes. If advertising is purchased directly, the radio station is likely to be able to identify what advertiser will be using the airtime. For the reasons set out in paragraph 5.4 there are barriers that are likely to make it difficult for a direct advertiser to use advertising airtime purchased by media buying agencies.

5.8 The analysis of supply-side substitution between the two routes is not likely to be relevant because most commercial radio stations supply both direct and indirect advertising. As such, any supply-side constraint that could exist is already likely to be present in the market. The exception to this are those national stations that only provide national advertising airtime. In theory, these national stations could supply-side substitute and provide advertising airtime to direct advertisers. However, in practice, for these stations the ability to provide a constraint from the indirect radio advertising market to the direct radio advertising market is likely to be limited. In

²⁸ Spot advertising gives a total cost to a particular period of airtime (e.g. 30 seconds during next Monday’s breakfast show).
²⁹ We note that some buyers purchased radio advertising directly and indirectly according to Nielsen media data (e.g. the COI).
³⁰ After reflecting the fees and commission payable to media buying agencies (estimated by Ofcom to be about 5%), the difference between the cost of buying through the two channels was reduced.
order to be an effective supply-side substitute, these stations would have to charge
direct advertisers for the commercial impacts local to their business. If a national
station were to charge in this way, it would not be charging these advertisers for the
commercial impacts achieved outside of the local areas targeted by the advertisers.
As such, national radio stations would be likely to have to forego revenues if they are
to provide an effective supply-side constraint to the direct radio advertising market.

5.9 Therefore, Ofcom takes the view that given the evidence it currently has regarding
the likely switching costs between direct and indirect radio advertising, and the
different prices paid for both routes (which suggests that radio stations may be able
to price discriminate between both routes), direct and indirect radio advertising
constitute separate relevant product markets. This conclusion is consistent with
previous OFT and CC findings.
Section 6

Method of analysis

6.1 Analysing competitive constraints - Description of standard test

6.1 Market definition is carried out by competition and regulatory authorities in order to identify the range of products that constitute the relevant economic market, for the purposes of informing competition assessments and regulatory interventions. Markets are defined according to two dimensions: the relevant product market and the relevant geographic market.

6.2 This report however does not attempt to reach a definitive view on the scope of the relevant market. A view on the relevant market will need to be formed by taking account of the specific facts or circumstances of the particular case at hand.

6.3 Instead, this report is concerned with the constraints that other media place on the pricing of radio advertising. This report does not assess the constraints faced by suppliers of radio advertising in one geographic area from suppliers of radio advertising in different geographic areas.31

6.4 In assessing the constraint imposed on the pricing of radio advertising by other media it is customary to apply the Hypothetical Monopolist Test or SSNIP (small but significant non-transitory increase in price) test.32 This test starts from the narrowest feasible set of interchangeable products (the focal product) and considers whether a hypothetical monopolist supplier of the focal product in question would find it profitable to raise prices by a small but significant proportion (typically 5-10%) for a sustained period of time (typically one year). This will depend both on the response and competitive constraint imposed by consumers and suppliers. Hence, the SSNIP test analyses whether consumers would be willing and able to switch to alternative products (demand-side substitution), and whether alternative suppliers who do not currently produce the focal product in question would be willing and able to start supplying it in a relatively short time frame (supply-side substitution).

6.5 From a theoretical point of view, one would apply the SSNIP test by asking whether a hypothetical monopolist of (direct or indirect) radio advertising could profitably raise prices by 5-10%. If, in response to the price increase, the reduction in sales of the product would be large enough that a hypothetical monopolist would not find it profitable to impose such an increase in price, then one would add to the product group the product that is the next-best substitute for radio advertising (e.g. TV advertising).

6.6 The SSNIP question would then be asked for a hypothetical monopolist controlling the expanded product group (i.e. radio advertising and TV advertising). This process would continue until a group of products was identified such that a hypothetical monopolist over that group of products would profitably impose a SSNIP. The relevant product market would normally be considered to be the smallest group of products that satisfies this test.

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31 For the rationale as to why we are only considering the product market in this report please see section 7.

32 See OFT guideline on market definition for more details – Market Definition: Understanding Competition Law, Office of Fair Trading.
6.7 However, this approach is difficult to apply in practice, as it would require the SSNIP test question to be applied to increasingly hypothetical scenarios and to be repeated to interviewees possibly several times. Therefore conducting successive SSNIP tests to incrementally add candidate substitute products to the relevant product market would have been feasible but would have been unlikely to provide considered responses. As already explained above, Ofcom’s approach identifies the products which appear to pose the strongest competitive constraint on (direct and indirect) radio advertising, but does not conclude on the issue of market definition.

6.8 The effect of the hypothetical monopolist’s price increase on its profits will depend on:

6.8.1 the gain in sales revenue on units of output for which customers pay the higher price: the more sales volume is retained, the more likely it is that the price increase is profitable;

6.8.2 the loss in sales volume of the product as a result of switching away following the price increase: the more sales volume lost, the more likely it is that the price increase is unprofitable;

6.8.3 the effect on the hypothetical monopolist’s costs: if the price rise results in a lower sales volume and hence a lower level of production, then this will lead to cost savings. The smaller the cost savings that result from the loss of sales volume, the more likely it is that the price increase will be unprofitable.

6.2 Lack of transparency and consistency of price and volume data

6.9 Although a number of techniques are in principle available to define relevant markets, the choice of technique will in practice depend on the availability of data. Most of the standard empirical or econometric techniques and tests require the availability of a consistent time-series of price and volume data. However, as discussed in Section 4.3 there is a general lack of transparency and visibility around actual radio advertising prices and volumes due to the fact that contracts are generally commercially negotiated bilaterally on a case by case basis. This means that there are no readily available, accessible or consistent measures of prices and volumes over time. As a consequence, econometric techniques and tests typically used for market definition are difficult to apply in practice. These issues are discussed further below.

Lack of transparency and consistency of price data

6.10 For the reasons explained below, transparent and consistent price data is not available:

Deviation between published rate card and actual prices paid

6.11 As explained in section 4.3, most radio groups or stations publish a form of rate card setting out list prices and reflecting differing levels of demand for particular stations and time periods. However, while rate card prices are available as a source of information on prices, the rate card prices are not the actual prices paid by advertisers for radio airtime. This is because discounts off the rate card price are generally negotiated between the seller and the buyer.
Negotiation of discounts on published rate card prices

6.12 Section 4.3 explained that discounts may take a number of different forms (e.g. percentage discounts on the listed rate card price, volume or share of spend discounts, etc), and that the size of the discount offered, in absolute and relative value terms, will depend on the relative bargaining power of the two parties to the transaction and on the method through which the advertising is purchased (i.e. direct or indirect), with the cost to advertisers that purchase advertising indirectly being typically lower than advertising on the same station sold to direct advertisers. As noted in section 4.3, awareness by advertisers of the exact value of discounts agreed appears to be low.

Bundling and parallel negotiation of advertising prices for clusters of stations

6.13 Section 4.3 explained that even when advertising is being purchased from a cluster of stations, the negotiation process will typically involve the agreement of a price on each individual station. Nevertheless, the negotiation sets the price for each individual station in parallel and the advertising on the individual stations is sold as a bundle. This practice further contributes to the difficulty in comparing, on a like-for-like basis, prices paid for advertising on different stations. For example, it may be that lower prices for individual stations achieved on the purchase of a bundle of stations by a media buying agency reflect larger discounts secured by the media buying agency on account of the size of the overall budget it allocates to that radio sales house. In this case, prices negotiated for stations belonging to different clusters may not be directly comparable as account would need to be taken of the impact on separately negotiated prices of the parallel nature of the negotiation process.

Aggregate demographic measure

6.14 Radio commercial impacts are generally sold on the basis of “all adult” listeners (see section 4.3) rather than audience sub-demographics as is the case for television advertising. However, as the radio station audience is likely to have a particular demographic profile, an advertiser may target a particular audience demographic or combination of demographics by approaching radio stations or clusters of radio stations that attract those audience demographic profiles. Therefore, although prices are set as all adults across radio stations, a radio station with a more valuable demographic group will be able to command a higher premium. Prices for “all adults” across stations are therefore not comparable on a like-for-like basis as the underlying product is differentiated across stations.

Lack of transparency and consistency of volume data

6.15 As explained in section 3.2, airtime on radio is generally sold either on a CPT basis, or as spot advertising. The CPT is established in relation to the number of commercial impacts achieved in the previous period. The actual number of impacts achieved in the end may actually be different from the number of impacts purchased in advanced. Therefore, it is likely to be difficult to relate exactly the price or CPT paid for radio advertising airtime to the price implied by the volume of commercial impacts actually achieved (which may differ for a given advertising budget if the volume of

33 A radio station’s audience profile is defined as the station’s total survey area (TSA), i.e. the coverage area within which a radio station’s audience is measured by RAJAR. A station or group of stations’ TSA is used as a proxy for the advertiser’s target audience area which is not directly observable.
commercial impacts acquired deviates from the volume of commercial impacts delivered).

6.16 When advertising is sold on a spot basis, the price relates to a particular period of airtime (e.g. 30 seconds during next Monday’s breakfast show). The same 30 second spot may achieve different number of impacts on different days or weeks.

6.17 Therefore, the fact that the number of impacts advertisers pay for does not necessarily match the number of impacts actually obtained and that the number of impacts may vary in different days or weeks makes it difficult to compare volumes, and to relate the price to the volume of impacts actually obtained for a given advertising budget.

**Conclusion**

6.18 Quantitative techniques using time series of historic price and volume data required for the market definition exercise are difficult to apply in practice because there is not a unique and transparent relationship between the price and volume data associated with direct and indirect radio advertising transactions, and this data is not available in a consistent, standardised or comparable way. The lack of a transparent pricing structure resulting from the standard practice of negotiating discounts on dynamic rate cards further limits the comparability of any price data that may be recorded by industry players.

6.19 Because of these factors, Ofcom has had to take a different approach to obtaining pricing and volume data for its analysis of the competitive constraints faced by suppliers of direct and indirect radio advertising. In particular, rather than using revealed preferences based on actual historic data since this data is not available in a sufficiently consistent way, Ofcom has adopted the approach of using stated preferences. In particular, Ofcom has carried out primary research in order to assess what media buying agencies and advertisers state that they would do in the event of particular relative price changes between (direct and indirect) radio advertising and other media.

6.20 Section 6.3 discusses this market research approach and methodology in more detail.

**6.3. Qualitative and quantitative primary research**

6.21 In order to allow Ofcom to fully understand the attitudes and behaviours of radio advertising buyers, Ofcom commissioned a market research programme.

6.22 The economic analysis necessitated asking respondents about their intentions in a hypothetical situation, where the price of radio advertising increased.

6.23 Stated intentions from survey research should be treated with caution, especially where the hypothetical situation is an unusual or unfamiliar one. Because of this the research programme consisted of both qualitative and quantitative research, which sought to understand how best to ‘frame’ the hypothetical question and also to understand the influencing factors in the purchase decision so that an assessment could be made on the consistency of the responses to hypothetical questions with respondents’ attitudes and actual behaviours.

6.24 The first phase of the research was completed in April 2005. Subsequent analysis of the survey data found that the sample sizes of indirect radio advertisers achieved on
6.25 Because of this Ofcom designed a second phase of research, specifically to examine the preferences and behaviours of indirect radio advertisers. This research was conducted amongst a sample of media buying and/or advertising agencies – the sample had a coverage equivalent to over 80% of the indirect radio advertising market in terms of spend value and can be considered as representative of the market as whole.

6.26 The second phase of the research was conducted between March and May 2006.

6.4. Sampling and approach

6.27 This section explains the approach and sample sizes of the surveys used for the direct and the indirect radio advertising SSNIP test analysis, and how those samples were created.

Phase 1 – survey used for direct radio advertising SSNIP test analysis

6.28 In the first phase of market research interviews were conducted with 500 organisations that buy radio advertising. 331 of these were direct advertisers and the remainder were indirect advertisers (clients) and advertising or media buying agencies.

6.29 In the first instance, the sample was created by fieldworkers listening to the radio and noting down the names of advertisers. However, as this provides only a ‘snapshot’ in time of radio advertisers, other sampling methods were also used. Additional samples of advertisers were acquired from a database of purchasing decision-makers (Business Pool – from Wegner Direct marketing), a list of the highest spending radio advertisers (Source: Mediatel) and a sample of companies that had advertised on the radio in the last two years (source: Nielsen media). Where the records did not contain addresses or telephone numbers the list of company names was sent to Dun & Bradstreet for matching with telephone numbers.

6.30 The sample was typed into electronic format and all other sample sources were supplied in electronic format and loaded onto Harris Interactive’s CATI\(^{35}\) system. This system randomly selected companies for interview within each quota cell.\(^{36}\) Where the interviewer failed to make contact with a respondent, repeated attempts (up to 10 times) were made to secure an interview. Once contact was made with a company, the person responsible for the company’s advertising and media spend was selected for interview.

6.31 As the precise profile of the ‘universe’ of direct radio advertisers is unknown (and changing) sample quotas for direct advertisers were not set. As a test for representativeness, the sample spend profile was compared to the spend profile of direct radio advertisers on Nielsen media’s database. The sample appears to be representative of UK direct radio advertisers, with the following exceptions:

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\(^{34}\) The sample source used did not allow identification of whether advertisers were classified as direct or indirect prior to fieldwork. During fieldwork, it became apparent that the approach was an inefficient way of achieving a robust sample of indirect radio advertisers.

\(^{35}\) Computer Assisted Telephone Interview

\(^{36}\) Quotas were set as follows: 450 radio advertisers, 25 media-buying agencies, 25 advertising agencies
6.31.1 the very highest spending direct radio advertisers are not represented by the survey. The Nielsen media database suggests that 11 advertisers account for 12% of spend – these 11 businesses are not represented by the survey; It may be that these high spending direct radio advertisers act and behave more like indirect advertisers; and

6.31.2 analysis also suggests that the survey under-represents the very lowest spenders (£0-£1000 per annum). The Nielsen media database suggests that these account for 2% of the direct radio advertising market spend, so this under-representation would have a negligible impact on the overall spend representativeness and subsequently the SSNIP analysis.

6.32 An analysis of the sample profile shows that those who revealed their budget and those who answered the SSNIP test question were similar in profile to the entire sample (see Annex 9). This suggests that the conclusions are valid as a broad rule across the market.

Phase 2 – survey used for indirect radio advertising SSNIP test analysis

6.33 The research consisted of a series of face-to-face interviews with Heads of Radio and others at all the “top-spending” media-buying agencies. The interviews were conducted using a mixture of qualitative and quantitative research techniques. This enabled the capture of quantitative data in an environment that allowed the interviewer to:

6.33.1 ensure the respondent had a full understanding of the questions asked; and

6.33.2 better understand the motivations behind the answers given.

6.34 The research questionnaire / discussion guide was designed with input from:

6.34.1 Ofcom;

6.34.2 The Institute of Practitioners in Advertising;

6.34.3 Human Capital.

6.35 Two pilot interviews were conducted with a media agency to identify issues and hone the questionnaire.

6.36 Nielsen media’s database was used as a sample frame and in total 28 media-buying agencies participated in the research. These included:

6.36.1 The 18 agencies (including PHD) that make up the top 80% of the market when ordered by spend;

6.36.2 Five agencies within the group accounting for 80%-90% of radio spend;

6.36.3 Five agencies within the group accounting for 90%-100% of radio spend, including two relatively small independents.

6.37 The respondents themselves included:

6.37.1 Heads of Radio (or equivalent) at each agency;

6.37.2 Four planners;
6.37.3 Four Chief Executives or Managing Directors.

6.38 A large single radio advertiser, which uses one agency to handle its radio account independent of other media, was also interviewed.

6.39 The profile of media buying agencies is such that some of the highest spending agencies could have a significant impact on overall market dynamics by their own actions. For this reason a census style approach was adopted to ensure that all of the highest spending agencies making up the top 80% of spend were included in the research. This meant that the sample slightly over-represented higher spending agencies; weighting has been applied to the data to compensate for this.
Section 7

Competitive constraints on direct radio advertising

7.1. Quantitative survey SSNIP test

7.1 The purpose of this SSNIP test analysis is to formulate a robust, evidence-based view on the starting position Ofcom would adopt when approaching a market definition exercise in relation to direct radio advertising in the context of a complaint, dispute, market review or submission to the OFT. The conclusions drawn from this survey-based analysis in relation to the competitive constraints on the pricing of direct radio advertising are intended to act as a starting point and any definitive view on the scope of the relevant product market for direct radio advertising in the context of a particular case would be formed by reference to the specific facts or circumstances of that particular case. The methodological limitations of this survey-based approach are set out in section 7.9 below.

7.2 Ofcom has not considered the geographic scope of the relevant market or the geographic constraints on suppliers of direct radio advertising as part of this analysis. The sale of direct radio advertising tends to be conducted at a regional or local level. To the extent that there are variations in the conditions of competition prevailing in different geographic areas, the scope of the relevant geographic market may vary on a case by case basis. A view on the boundaries of the relevant geographic market in the context of a complaint, dispute, market review or submission to the OFT would need to be based on the specific circumstances and facts of the case in question.

7.3 Ofcom recognises that commercial radio broadcasting is a two-sided market. Commercial radio stations acquire content and programming in order to attract listeners and then sell these listeners to advertisers by providing advertisers with advertising airtime. However, as discussed in section 7.5 below, while Ofcom acknowledges the competitive interactions between the two-sides of the market, Ofcom has, for the purpose of this study, focussed its analysis (of the competitive constraints on the pricing of direct and indirect radio advertising) on the provision of radio advertising to direct and indirect advertisers and not on the provision of radio broadcast content to listeners.

7.4 This section describes the methodology adopted for carrying out the quantitative SSNIP test analysis for the purpose of informing the identification of the competitive constraints on the pricing of direct radio advertising. As described in section 5.2, price and quantity data is not available in a sufficiently consistent way from the market. In addition, in the context of its submissions to the OFT in relation to the Capital/GWR merger and the acquisition by Emap of SRH, Ofcom made data requests to the consolidating parties to inform its assessment of the relevant markets affected by these concentrations. The information received in response to these data requests was insufficient for Ofcom to conclude definitely on (i) the competitive constraints faced by suppliers of direct and indirect radio advertising and (ii) the scope of the relevant product markets affected by these two concentrations.

7.5 Given the lack of transparency and consistency of available market data, Ofcom commissioned a survey to collect qualitative and quantitative evidence to enable an assessment of the extent to which direct radio advertising is constrained by other
media and therefore to establish the potential scope of the relevant product market for direct radio advertising, in particular, whether the relevant product market could in general be expected to be narrow (direct radio advertising only) or broad (wider than direct radio advertising and including one or more other media). Ofcom considered all potential alternative media as part of the survey process.

7.6 As discussed in section 5.1, the purpose of a product market definition is to identify the set of products that are interchangeable or substitutable from the perspective of customers and suppliers and that therefore impose a competitive constraint on each other. As such, the market definition exercise defines the boundaries within which the competitive process takes place.

7.7 In order to inform the competitive constraints on the pricing of direct radio advertising, Ofcom has conducted a SSNIP test (or hypothetical monopolist test). The SSNIP test identifies close demand-side and supply-side substitutes that impose a competitive constraint on the hypothetical monopoly supplier of a given product or set of products (see Section 5). This study focuses on demand-side substitutability (i.e. the competitive constraint imposed by customers switching to alternative products in response to a SSNIP).

7.8 As with the discussion in Section 7 above about supply-side substitution between direct and indirect radio advertising markets, Ofcom considers that any scope for supply-side substitutability from other media advertising into direct radio advertising would be extremely limited. This is because supply-side substitution is unlikely to occur within any reasonable timeframe in response to an increase in the price of direct radio advertising. New entry into commercial radio is constrained by the availability of spectrum and frequencies and by Ofcom’s existing licensing regime. Although new digital technology will make more efficient use of the spectrum available, spectrum is still a scarce commodity. A potential entrant would only be able to apply to Ofcom for a licence in response to an advertisement by Ofcom of a new licence that had become available. The potential entrant would only be permitted to broadcast a service and therefore sell advertising airtime upon the approval of the application and the granting of a commercial radio licence by Ofcom.

7.9 If two products are substitutes from a demand-side perspective, then they will be considered to be sufficiently close to be part of the same relevant product market even if supply-side substitution is not feasible. If supply-side substitution were in fact feasible, the scope of the relevant product market may, depending on the degree of competitive pressure, be broadened to encompass any supply-side substitutes but would remain at least as wide as the two demand-side substitute products. Therefore, the presence of any supply-side substitution would tend to broaden rather than narrow the scope of the relevant product market defined from a demand-side perspective.

7.10 Ofcom has conducted a SSNIP test analysis on the quantitative survey data in order to identify and measure the degree of demand-side substitutability and competitive constraints existing in relation to direct radio advertising. Ofcom has combined the results of the SSNIP test set out below with the analysis of the qualitative and other quantitative survey findings to reach a conclusion on the likely constraints faced by suppliers of direct radio advertising and on the preliminary view Ofcom would adopt, in the absence of any information of the specific facts and circumstances of a particular case, in relation to the scope of the relevant product market definition for direct radio advertising.
7.2. Survey SSNIP question

7.11 In the quantitative survey phase of the market research, direct advertisers were asked how they would respond to the following question:

“If you were to run this campaign again and the cost of the radio advertising was 5% more, and everything else, for example, the number of slots or the audience coverage, was exactly the same, which of the following would you be most likely to do?”

7.12 The question was then repeated also for a 10% increase in the price of direct radio advertising.

7.13 Respondents fell into the following categories:

7.13.1 “continuers” fully absorbing the 5% (or 10%) price rise and therefore spending more on direct radio advertising for the same volume of airtime (these respondents are stating that they have an inelastic demand for direct radio advertising, i.e. total expenditure on direct radio advertising rises as the price increases);

7.13.2 “continuers” spending the same amount on direct radio advertising but purchasing fewer slots, shorter slots or less airtime (these respondents are stating that they have a unit elastic demand for direct radio advertising, i.e. total expenditure on direct radio advertising remains constant as the price increases);

7.13.3 “partial switchers” that switch a proportion of their direct radio advertising budget away to other media but the amount or proportion substituted away is unspecified;

7.13.4 “full switchers” that switch all their direct radio advertising budget away to other media; and

7.13.5 those that answered “don’t know”.

7.14 The first category consists of respondents who do not switch away from radio and who are profitable to the hypothetical monopolist following the SSNIP, while the fourth category of respondents corresponds to customers that are unprofitable following the SSNIP. The third category of respondents, i.e. the partial switchers, in general cause a loss to the hypothetical monopolist. However they may lead to an increase in revenue under the conservative assumption that they increase their spend on the proportion of their budget that is not switched away. Ofcom has adopted this conservative assumption in its analysis. Finally, the second category of respondents would have no impact on the net profitability of the hypothetical monopolist under a zero marginal cost assumption. If this assumption is relaxed to allow for cost savings associated with a reduction in the volume of advertising airtime sold then this second category of respondents would contribute positively to this net profitability. This is summarised in table 7 below.

37 Note that if a large proportion of respondents fell into this category, this would imply that the hypothetical monopolist radio station was not profit-maximising because it would be operating on the inelastic segment of the demand curve for direct radio advertising where direct radio advertising revenue could be increased by raising the price.
Table 7: Impact of different categories of respondents on hypothetical monopolist’s profitability

<table>
<thead>
<tr>
<th>Category of respondent</th>
<th>Whether profitable/unprofitable to hypothetical monopolist</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuers spending more</td>
<td>Profitable</td>
</tr>
<tr>
<td>Full switchers</td>
<td>Unprofitable</td>
</tr>
<tr>
<td>Continuers spending the same</td>
<td>Neutral (under zero marginal cost assumption)</td>
</tr>
<tr>
<td>Partial switchers</td>
<td>• Unprofitable in respect of switched budget</td>
</tr>
<tr>
<td></td>
<td>• Profitable in respect of budget not switched</td>
</tr>
</tbody>
</table>

7.3. Survey SSNIP test results by category of respondent

7.15 Table 8 below summarises the responses to the 5% and 10% survey SSNIP test question by setting out the number and proportion of direct radio advertisers falling under each response category.

Table 8: Summary of responses to the direct radio advertising survey SSNIP test question broken down by category of respondent*

<table>
<thead>
<tr>
<th>Category of respondent</th>
<th>5% SSNIP Frequency</th>
<th>10% SSNIP Frequency</th>
<th>5% SSNIP Proportion of total</th>
<th>10% SSNIP Proportion of total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuers spending more</td>
<td>78</td>
<td>34</td>
<td>43%</td>
<td>19%</td>
</tr>
<tr>
<td>Continuers spending same</td>
<td>44</td>
<td>55</td>
<td>24%</td>
<td>30%</td>
</tr>
<tr>
<td>Partial switchers to press</td>
<td>6</td>
<td>11</td>
<td>3%</td>
<td>6%</td>
</tr>
<tr>
<td>Full switchers to press</td>
<td>16</td>
<td>27</td>
<td>9%</td>
<td>15%</td>
</tr>
<tr>
<td>Partial switchers to direct mail</td>
<td>3</td>
<td>4</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Full switchers to direct mail</td>
<td>2</td>
<td>1</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial switchers to magazines</td>
<td>2</td>
<td>3</td>
<td>1%</td>
<td>2%</td>
</tr>
<tr>
<td>Full switchers to magazines</td>
<td>3</td>
<td>4</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Partial switchers to TV</td>
<td>0</td>
<td>1</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Full switchers to TV</td>
<td>1</td>
<td>1</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial switchers to outdoor</td>
<td>0</td>
<td>2</td>
<td>0%</td>
<td>1%</td>
</tr>
<tr>
<td>Full switchers to outdoor</td>
<td>3</td>
<td>2</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial switchers to other</td>
<td>1</td>
<td>7</td>
<td>1%</td>
<td>4%</td>
</tr>
<tr>
<td>Full switchers to other</td>
<td>3</td>
<td>2</td>
<td>2%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial switchers to don’t know</td>
<td>6</td>
<td>6</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Full switchers to don’t know</td>
<td>6</td>
<td>6</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>14</td>
<td>32</td>
<td>8%</td>
<td>13%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>182</td>
<td>182</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*based on a sample size of 182 direct radio advertisers that answered the survey SSNIP test question.

Note: there is a slight discrepancy between the sum of the numbers in each category and the total presented due to the fact that a few advertisers said they would switch their radio budget to multiple media, but did not specify which proportion would be transferred to each media.

7.16 Table 9 below sets out, for both the 5% and 10% SSNIP tests, the mean direct radio advertising budget spent on the last campaign featuring radio for each category of respondent and the proportion of the total sample direct radio advertising expenditure on the last campaign featuring radio accounted for by each category of respondent.
When reporting their annual media budgets and media budgets on the last campaign featuring radio, advertisers were asked to exclude production costs.

Table 9: Mean direct radio advertising budget spent on the last campaign featuring radio and proportion of total direct radio advertising expenditure on the last campaign accounted for by each category of respondent*

<table>
<thead>
<tr>
<th>Category of respondent</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Continuers spending more</td>
<td>4,719</td>
<td>6,106</td>
<td>34%</td>
<td>19%</td>
</tr>
<tr>
<td>Continuers spending same</td>
<td>8,899</td>
<td>6,050</td>
<td>37%</td>
<td>31%</td>
</tr>
<tr>
<td>Partial switchers to press</td>
<td>2,800</td>
<td>4,295</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Full switchers to press</td>
<td>4,945</td>
<td>4,564</td>
<td>7%</td>
<td>12%</td>
</tr>
<tr>
<td>Partial switchers to direct mail</td>
<td>9,133</td>
<td>9,263</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Full switchers to direct mail</td>
<td>9,500</td>
<td>2,000</td>
<td>2%</td>
<td>0%</td>
</tr>
<tr>
<td>Partial switchers to magazines</td>
<td>12,100</td>
<td>5,967</td>
<td>2%</td>
<td>2%</td>
</tr>
<tr>
<td>Full switchers to magazines</td>
<td>1,483</td>
<td>5,363</td>
<td>0%</td>
<td>2%</td>
</tr>
<tr>
<td>Partial switchers to TV</td>
<td>0</td>
<td>5,000</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Full switchers to TV</td>
<td>6,000</td>
<td>6,000</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial switchers to outdoor</td>
<td>0</td>
<td>900</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Full switchers to outdoor</td>
<td>1,550</td>
<td>1,575</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Partial switchers to other</td>
<td>7,200</td>
<td>4,764</td>
<td>1%</td>
<td>3%</td>
</tr>
<tr>
<td>Full switchers to other</td>
<td>922</td>
<td>4,250</td>
<td>1%</td>
<td>1%</td>
</tr>
<tr>
<td>Partial switchers to don’t know</td>
<td>1,625</td>
<td>13,017</td>
<td>5%</td>
<td>7%</td>
</tr>
<tr>
<td>Full switchers to don’t know</td>
<td>633</td>
<td>6,583</td>
<td>2%</td>
<td>4%</td>
</tr>
<tr>
<td>Don’t know</td>
<td>3,379</td>
<td>23</td>
<td>5%</td>
<td>13%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>1,070,244</td>
<td>1,070,244</td>
<td>100%</td>
<td>100%</td>
</tr>
</tbody>
</table>

*based on a sample size of 182 direct radio advertisers that answered the survey SSNIP test question.

**where the total pre-SSNIP direct radio advertising expenditure on the last campaign featuring radio for the sample of 182 direct advertisers is £1,070,244.

7.4. Methodology

7.17 Ofcom has carried out a SSNIP test analysis on a sample of 182 direct radio advertisers who provided a value for the direct radio advertising budget of their last campaign (featuring direct radio advertising) only. 36

7.18 In addition to the analysis of the competitive constraint imposed by press advertising on the price of direct radio advertising, Ofcom has also considered the degree of competitive constraint imposed by other media such as direct mail, magazines, outdoor and television as part of this analysis.

36 Ofcom has also undertaken its SSNIP analysis using a smaller sample of 150 advertisers who provided a value for the direct radio advertising budget of their last campaign featuring direct radio advertising and a value for their direct radio advertising budget over the last 12 months. The larger sample of 182 advertisers is inclusive of the smaller sample. Results do not vary significantly between the different samples so all results presented in this section are based on the larger, more robust sample of 182 direct radio advertisers.


**Switching to media other than press**

7.19 Only small proportions (no more than 4%) of the sample of direct radio advertisers claimed that they would switch to any individual media other than press. The sample sizes of switchers was therefore so small that robust analysis could not be conducted to test whether other media could act as a competitive constraint on the price of direct radio advertising.

7.20 Indicative analysis of the profile of those that claimed they would switch to direct mail does not suggest claimed switching is concentrated within any particular industry sector. The only noticeable common aspect of these companies is that five of the six companies have between 10 and 49 employees at that site.

7.21 Six of the seven companies that claim they would switch to magazines are in the retail sector and all have less than 25 employees. Three of the seven companies have not advertised in the last year. Of the two companies who claim they would switch some advertising to outdoor media, both are in the transport, communications and utility sector. The actual number of switchers claiming to switch to TV in the sample is too small to conduct such analysis.

7.22 With such small samples of switchers, analysis cannot be robustly conducted that could be considered as applicable across the UK profile of advertisers.

**Profile of switchers to press**

7.23 The profile of switchers has been compared to the entire sample to ensure that no high-spending outlier has had an overtly strong impact on the analysis. While the profile of switchers does cover a broad range of spend categories this is reflective of the market profile.

**Calculation of SSNIP test profitability**

7.24 Tables throughout this section report the net profitability to the hypothetical monopoly supplier of direct radio advertising from switching to press advertising (both local/regional and national press advertising) following the SSNIP. Negative figures (shown in red) imply that the SSNIP test is unprofitable and therefore that press advertising constitutes a binding competitive constraint on direct radio advertising, suggesting that press and direct radio advertising are likely to be in the same relevant product market.

7.25 Ofcom has calculated the net profitability of the SSNIP to the hypothetical monopolist as:

7.25.1 the gain in revenue on sales to advertisers who spend more on direct radio advertising;

    plus

7.25.2 the gain in revenue on continued sales to partial switchers to press (i.e. the x% increase in price is applied to the proportion of partial switcher budget that is not transferred to an alternative media by partial switchers to press);

    plus
7.25.3 the gain in profits from cost savings (if any) achieved as a result of reduced advertising sales activity; 

\[\text{minus}\]

7.25.4 the loss in revenue from partial and full switchers switching some or all of their direct radio advertising budget to press.

7.26 Ofcom has calculated the profitability of the SSNIP based on respondents’ direct radio advertising expenditure on their most recent campaign that included direct radio advertising (and not, for example, on their annual direct radio advertising budget). Radio advertising expenditure excludes advertisement production costs.

7.27 As mentioned above, partial switchers did not specify how much or what proportion of direct radio advertising expenditure they would switch to other media in response to a SSNIP. To cover all possibilities Ofcom has therefore run a number of scenarios for the purpose of the SSNIP test allowing the proportion of partial switchers’ expenditure switched to other media to vary from 0% to 100%. This is applied uniformly to all partial switchers.

7.5. Assumptions underlying SSNIP test analysis

7.28 This section presents a preliminary discussion of the key assumptions underlying the SSNIP test analysis. Each assumption is treated in more detail later in the report.

Marginal cost assumption

7.29 In order to calculate the net profitability of a SSNIP, it is necessary to take into account the cost savings achieved, if any, from the lower volume of advertising airtime supplied following the switching away from radio in response to the price increase. For the purpose of the base case SSNIP test analysis, it is assumed that the marginal cost of supplying direct radio advertising airtime is zero. The reasons for making this simplifying assumption are set out below.

7.30 Radio stations incur a number of different categories of costs associated with a number of different activities. Nevertheless, the costs that are related to the provision of advertising airtime are likely to fall mainly within a sub-set of the overall staff costs of the radio station. The sale of advertising will only account for a proportion of the overall staff costs of the radio station as many employees of the radio station will not be involved in the advertising sales business, for example presenters and much of the senior management (although a proportion of the latter’s staff costs may be attributed to advertising sales activity to the extent it is relevant, this share of costs is unlikely to be avoidable in the event of a reduction in advertising sales activity).

39 The major categories of costs incurred by radio stations are:

- general and administration (e.g., staff costs, legal and professional costs, Ofcom licence fees and commercial rent on buildings/premises);
- engineering (e.g. transmitter operating costs and studio maintenance);
- programming (e.g. copyright/royalty fees, commercial production and content rights);
- marketing and promotion; and
- audience research.

40 A share of overhead costs, such as commercial premises rent, may also be allocated to advertising sales activity. However such common costs are unlikely to be avoidable unless many staff would be laid off in response to a given reduction in advertising sales activity such that less commercial office space were required.
7.31 For the purpose of the SSNIP test analysis, the relevant marginal cost to be considered is the cost that the supplier avoids by supplying one less “unit” of the product in question or, in the absence of suitable data on volume measures of advertising airtime, the costs that are avoided by supplying airtime to one less advertiser. In the case of a radio station supplying direct advertising, it is unlikely that costs such as commercial rent can be avoided, unless incremental reductions can be made. Depending on the magnitude of switching by advertisers in response to a price increase, the only avoidable costs from supplying one less unit of advertising airtime (or one less advertiser) are likely to be advertising sales staff costs. These are the labour costs associated with managing, administering and processing advertising contracts as well as the bonuses awarded to advertising sales staff.41

7.32 Although it is possible that as a radio station’s portfolio of advertisers reduces (and therefore as advertising sales activity reduces), fewer members of staff are required to manage that portfolio, the survey data indicates that a percentage of switchers only switch a proportion of their direct radio advertising budget away. If this is the case in practice, such a “partial switcher” would require sufficient staff in the radio station’s sales division to manage its remaining advertising requirements.

7.33 On the assumption that a radio station’s advertising sales staff costs account for a relatively low proportion of its total costs42, this would indicate that the marginal cost of providing direct radio advertising is likely to be low, if not close to zero.

7.34 Furthermore, any reduction in advertising sales staff costs that is achieved through reduced sales volumes may be limited by the requirement to continue providing advertising to partial switchers and those that do not switch at all. It may therefore not be unreasonable to assume, as a simplifying assumption for the base case SSNIP, that the marginal cost of supplying direct radio advertising is zero.

7.35 A further consideration is that if an advertiser switches away from a radio station, that station will have to fill the vacant airtime (unless it decides to reduce its daily airtime, which would incur an opportunity cost). It is likely that filling this airtime with non-advertising content would incur additional costs. This increase in cost may be referred to as the ‘cost effect’ arising as a result of a reduction in the volume of advertising airtime. Depending on the nature and cost of the content used to fill the airtime released by the switching advertiser, these additional costs could cancel out the cost savings achieved from reduced advertising sales activity.

7.36 Vacant airtime may be filled, for example, by incurring additional royalty payments on musical material or by simply extending the duration of existing programming, e.g. more discussion or commentary from the presenter. The cost of the latter is not likely to be significant and, given the marginal nature and limited duration of the airtime slots made available as a result of advertisers switching away, it may be expected that the latter, relatively costless course of action would be adopted by a radio station supplying direct radio advertising43.

7.37 The zero marginal cost assumption in the base case is a simplifying assumption. Ofcom has carried out a sensitivity analysis (described in section 6.7 below) to relax

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41 Advertising sales staff costs may also include advertisement production costs in cases where a radio station is contracting with smaller direct radio advertisers that cannot afford to purchase the services of an advertising or media buying agency or that do not have an in-house production unit.

42 Ofcom’s analysis from a sample of commercial radio station licence applications indicates that advertising sales staff costs account for approximately 10% of total radio station costs.

43 For the purpose of the SSNIP test analysis, the cost savings net of any additional costs incurred to fill any vacant airtime slots have not been explicitly modelled.
this assumption by allowing for cost savings achieved from (a) reduced licence fees and royalties payments and (b) reduced advertising sales activity (i.e. a reduction in advertising sales staff costs) following the SSNIP.

Competitive price level assumption

7.38 Current prices paid by the direct radio advertisers in the quantitative survey sample are assumed to be at the competitive level. This is a key requirement for the results and conclusions of a SSNIP test to hold. A concern arises if the test is applied on actual prices and those prices are above competitive levels. This is because in such a case consumers or customers may be prepared to switch to alternative products which they would however not regard as substitutes if the price of the product in question was at the competitive level (this is known as the ‘cellophane fallacy’).

7.39 The cellophane fallacy may occur where, for example, the supplier of a product is exercising considerable market power such that it is pricing above competitive levels. As prices increase, consumer demand becomes more elastic. Further price increases could be offset by a reduction in quantity demanded. In other words, if the price paid by consumers is above competitive levels, further price increases could induce them to purchase an alternative product. Therefore the application by a hypothetical monopolist of a SSNIP to the price of that given product would likely be unprofitable. It would then be wrongly concluded that the pricing of this given product is constrained by substitute products and the market would be defined as being broader than it actually is.

7.40 In practice, determining the competitive price level is difficult. Hence, the existing price level is sometimes relied on but if it is believed that the existing price level is above the competitive level then caution should be applied in interpreting the results of the SSNIP test, and other accompanying evidence should also be taken into account.

7.41 Section 6.8 below considers the qualitative and quantitative evidence supporting the reasonableness of the assumption that the current prices of direct radio advertising are at, or at least not significantly above, the competitive level.

Price discrimination

7.42 The prevalence of bilateral negotiations between radio stations and direct advertisers and the differential discounts agreed between the two may suggest that radio stations are able to effectively price discriminate between customers. A condition for a provider with a degree of market power to engage in first or third degree price discrimination is the ability of that provider to identify the willingness-to-pay of different customers or to identify distinct groups of customers that share similar demand characteristics.

7.43 While price discrimination between different direct radio advertisers may arise in some cases, indicative analysis conducted by Ofcom (see Annex 9) suggests that there are no systematic or statistically significant differences between the profile of switchers within its survey sample of direct radio advertisers and the profile of the sample of direct radio advertisers as a whole. This indicates that the direct radio advertisers most likely to switch away from radio (either partially or fully) may not necessarily be identifiable and distinguishable from those direct radio advertisers with a lower propensity to switch.
Moreover, in some cases, it may be appropriate to characterise the ability of direct radio advertisers to negotiate more or less favourable discounts on the price of direct radio advertising as a reflection of the relative degree of bargaining power of different direct radio advertisers, rather than as the ability of the radio station to price discriminate.

Therefore, for the reasons set out above, while Ofcom recognises the potential for price discrimination in the provision of direct radio advertising to occur in some cases, Ofcom has not explicitly adapted its SSNIP test methodology to take this into account for the purpose of this analysis of competitive constraints on the pricing of direct radio advertising. Ofcom would, however, undertake further analysis of this point in the context of a particular case to test whether price discrimination, if relevant, affected the results of the analysis set out in this report.

Two-sided market

The radio medium is a two-sided market providing a service to consumers and to advertisers. To the extent that, holding everything else constant, (i) the audience of a radio station increases as the volume of advertising airtime broadcast by that station decreases, and (ii) an increase in the audience of a radio station increases the value of that station’s airtime to advertisers, then a reduction in the volume of advertising airtime on a given radio station may generate a ‘price effect’ that may offset to some degree the decrease in profit resulting from some advertisers switching away from radio. This is because the reduction in the volume of advertising airtime on a given radio station may, if it stimulates an increase in audience, increase the relative attractiveness of that station to advertisers. The higher price that may be charged by that station to advertisers for its relatively more valuable advertising airtime would tend to increase the profitability of the radio station thereby offsetting to some degree the decrease in profitability brought about by some advertisers switching away.

A thorough analysis of the impact of the two-sided nature of radio on the SSNIP test results would require an estimation of (i) the increase in audience resulting from the decrease in advertising airtime sales following the price rise, and (ii) the price premium that radio stations would be able to command as a result of that increase in audience. It appears in principle that the effect on audience that may be brought about by the decrease in sales of radio advertising airtime resulting from a 5-10% price increase may be small. However the data necessary for such analysis is not currently available, and would require at least a survey to be conducted among radio listeners.

The two-sidedness of the market has another implication. This report analyses only the effect on the hypothetical monopolist’s profits from an increase in the price of airtime to advertisers. But the audience, or listeners, constitute another group of customers (the second side of the market). Listeners pay an implicit price for listening to the radio. To the extent that having to listen to advertising is a nuisance, one might consider this nuisance as the price that listeners pay for listening to the radio. Estimating the implicit price paid by listeners is difficult. Although one may undertake a survey to ask radio listeners which amount of money they would be ready to give up in order to avoid, for example, ten minutes of advertising which interrupts radio programmes, the translation of lost time into monetary value is likely to present challenges.

The SSNIP test on this second side of the market might be conducted by asking listeners whether they would reduce their radio listenership if a hypothetical radio monopolist increased by 5-10% the airtime devoted to advertising (i.e. the implicit
price paid by listeners).\textsuperscript{44} One could then proceed to estimate the loss of listenership by the hypothetical monopolist, and from this to assess the loss in advertising revenues resulting from diminished listenership and reduced ability to charge a premium to advertisers for advertising airtime.

7.50 A quantification exercise on the listeners' side would be complex. Ofcom has not conducted such an analysis in the context of this report. This report only analyses the effect on the hypothetical monopolist's profitability of an increase in the price of direct radio advertising airtime to advertisers.

7.6. Base case SSNIP test results

7.51 Table 10 below shows the net profitability of the SSNIP to the hypothetical monopolist expressed as a proportion of the pre-SSNIP aggregate direct radio advertising revenues of the sample of 182 direct radio advertisers. The net profitability of both the 5% and 10% SSNIPs is negative, regardless of the assumption made on the proportion of direct radio advertising revenue transferred away by press by partial switchers. A negative net profitability indicates that the pricing of direct radio advertising is constrained by press advertising. The analysis indicates that direct radio advertising appears to be constrained by press advertising.

Table 10: Net profitability of a SSNIP to the hypothetical monopolist from switching to press

<table>
<thead>
<tr>
<th>Percentage of direct radio advertising budget transferred to press by partial switchers</th>
<th>SSNIP test**</th>
<th>0%</th>
<th>50%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net profitability of SSNIP test* 5%</td>
<td>-9%</td>
<td>-6%</td>
<td>-6%</td>
<td>-7%</td>
</tr>
<tr>
<td>10%</td>
<td>-9%</td>
<td>-12%</td>
<td>-14%</td>
<td></td>
</tr>
</tbody>
</table>

* expressed as a % of pre-SSNIP total direct radio advertising revenue
**based on a sample size of 182 direct radio advertisers

7.52 As discussed in section 5.4.1, the profile of those direct radio advertisers that revealed the value of their budget spent on their last advertising campaign that included radio and answered the SSNIP test question was similar to the profile of the entire sample. This suggests that the conclusions drawn from the application of the SSNIP test to the sample of direct radio advertisers that participated in the SSNIP test are valid and can be generalised as a broad rule across the population of direct radio advertisers.

7.7. Sensitivity analysis

7.53 In order to test the robustness of the base case SSNIP test results presented in section 6.6 above, Ofcom has constructed a set of scenarios departing from the base case model by varying the assumptions underlying this base case.

7.54 Ofcom has conducted the following sensitivities:

\textsuperscript{44} It may be that the marginal implicit price paid by listeners for additional advertising airtime may increase as more advertising minitgage is added (i.e. the relationship between the marginal implicit price and the volume of advertising airtime may not necessarily be linear). For example, a 1% increase in the volume of advertising airtime may increase the cost faced by a listener by 1% but a 10% increase may increase this listener cost disproportionately more.
7.54.1 Inclusion of the additional gain in revenue for the hypothetical monopolist from partial switchers to other media (i.e. not just partial switchers to press);

7.54.2 Different values for direct advertisers’ average budgets;

7.54.3 Different number of partial and full switchers;

7.54.4 Price increases lying between 5-10%; and

7.54.5 Inclusion of possible cost savings.

7.55 Each of these sensitivities is briefly explained below. More detail is included in annexes 1-7.

**Inclusion of additional gain in revenue for hypothetical monopolist from partial switchers to other media**

7.56 The “standard” methodology Ofcom has adopted for calculating the net profitability of the SSNIP to a hypothetical provider of direct radio advertising set out in section 6.4 isolates the effect of the competitive constraint imposed by press only and represents the conventional approach used to assess the substitutability of a given product or group of products on a pairwise basis, in this case press only. An alternative methodology could be adopted to take into account, in addition to the gains listed in section 6.4, the gain in revenue on sales to partial switchers that switch a proportion of their initial radio advertising budget to an alternative media other than press (e.g. outdoor billboards or magazines).

7.57 This “partial switcher to any media” methodology would overstate the net profitability accruing to the hypothetical monopolist and therefore provides, all else being equal, a form of upper bound on the profitability of the SSNIP test and therefore on the degree of competitive constraint imposed by press advertising on direct radio advertising.

7.58 Under this methodology, the net profitability of a SSNIP to the hypothetical monopolist supplier of direct radio advertising is negative, regardless of the proportion of direct radio advertising budget transferred to any other media by partial switchers. This suggests that even under the “partial switcher to any media” methodology, direct radio advertising appears to be constrained by press advertising. The results are robust to the inclusion of the gain in revenue from partial switchers to other media (as well as press).

7.59 Annex 1 contains further detail on this sensitivity analysis.

**Different values for the average budgets**

7.60 The direct radio advertising budgets used to calculate the gain in revenue from sales to customers who do not switch away from radio and the loss in revenue on foregone sales to customers who switch away are based on data collected through a survey. Due to the fact that Ofcom is using sample rather than population data, there is a sample error margin associated with the total and average direct radio advertising expenditure (on the most recent campaign featuring radio) of all possible sub-categories of respondents. Ofcom has therefore carried out a sensitivity analysis to test the sensitivity of the survey value based results to different values for the average direct radio advertising budgets of the different categories of respondents defined and listed in section 6.2 above.
7.61 Ofcom has constructed extreme case scenarios by calculating survey sample error margins (consisting of a lower and upper bound of a 95% confidence interval) on the average radio advertising budgets of the different categories of respondents (i.e. continuers spending more on radio, continuers spending the same on radio, partial switchers and full switchers):

7.61.1 **more profitable case**: the average radio advertising budget of continuers is assumed to be higher than in the survey and the average radio advertising budget of switchers to press is assumed to be lower than in the survey.\(^{45}\). This corresponds to the weakest possible constraint from press advertising.\(^{46}\);

7.61.2 **central survey case**: this scenario corresponds to the use of the radio advertising budgets stated in the survey; and

7.61.3 **less profitable case**: the average radio advertising budget of continuers is assumed to be lower than in the survey and the average radio advertising budget of switchers to press is assumed to be higher than in the survey.\(^{47}\). This corresponds to the strongest possible constraint from press advertising.\(^{48}\).

7.62 This sensitivity analysis shows that a hypothetical monopolist supplier of direct radio advertising would find it unprofitable to attempt a SSNIP, even under the more profitable case and regardless of the proportion of direct radio advertising budget transferred to press by partial switchers. This suggests that even under the more profitable case, direct radio advertising appears to be constrained by press advertising.

7.63 Annex 2 contains further detail on this sensitivity analysis.

**Different number of partial and full switchers**

7.64 The use of stated intentions (based on survey responses to hypothetical scenarios) rather than revealed behaviour (based on actual observed behaviour) for direct radio advertisers may overstate (or understate) actual switching behaviour. A discrepancy between stated and revealed preferences may arise for a variety of reasons. For example, a respondent may not have previously encountered the hypothetical commercial scenario presented to it and its response may therefore under certain circumstances be speculative by nature (e.g. if a respondent required time to formulate a fully informed rational decision or in the absence of the reality of competitive commercial pressures).

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\(^{45}\) The average radio advertising budget of continuers is assumed to be at the upper bound of the error margin on the average direct radio advertising budget for continuers spending more on radio and the average radio advertising budget of switchers to press is assumed to at the lower bound of the error margin on the average direct radio advertising budget for partial switchers to press.

\(^{46}\) More and less profitable cases are extreme cases that are very unlikely to materialise (see annex 2 for more details).

\(^{47}\) The average radio advertising budget of continuers is assumed to be at the lower bound of the error margin on the average direct radio advertising budget for continuers spending more on radio, while the average radio advertising budget of switchers to press is assumed to be at the upper bound of the error margin on the average direct radio advertising budget for partial switchers to press.

\(^{48}\) More and less profitable cases are extreme cases that are very unlikely to materialise (see annex 2 for more details).
7.65 Ofcom has therefore conducted a sensitivity analysis to establish the sensitivity of the base case SSNIP test net profitability results to changes in the switching rate for partial and full switchers (i.e. the number of partial and full switchers respectively as a proportion of the total number of respondents in the survey sample). The partial switcher rate is varied first (holding the full switcher rate equal to the survey full switcher rate) and subsequently the full switcher rate is varied (holding the partial switcher rate equal to the survey partial switcher rate).

7.66 This sensitivity shows that the base case SSNIP test results appear to be robust to variations in the partial switcher rate and full switcher rate and therefore robust to any stated intentions bias.

7.67 In particular, varying the partial switcher rate (holding the full switcher rate constant) the SSNIP is only profitable (negligible profitability) if:

7.67.1 the survey partial switching rate overstates the actual switching rate;

7.67.2 the more profitable case scenario is assumed (i.e. the weakest possible constraint exercised by press advertising); and

7.67.3 the price of direct radio advertising increases by 5% (under a 10% price increase the SSNIP is always unprofitable).

7.68 Varying the full switcher rate instead (holding the partial switcher rate constant), the SSNIP test only delivers a positive net profitability if:

7.68.1 the survey full switcher rate substantially overstates actual switching behaviour (i.e. the actual full switcher rate would be substantially lower than the full switcher rate implied by the survey responses); or

7.68.2 the more profitable case scenario is assumed (i.e. the weakest possible constraint imposed by press advertising).

7.69 It is important to note that the “more profitable” and “less profitable” cases are extreme cases relying on extreme assumptions. They would therefore be very unlikely to materialise. The more profitable case does however provide a statistically significant upper bound, all else being equal, on the net profitability of the SSNIP to the hypothetical monopolist.

7.70 Annex 3 contains further detail on this sensitivity analysis.

**Price increases lying between 5 and 10%**

7.71 The survey asked direct advertisers how they would respond to a 5% and to a 10% price increase. Ofcom has conducted sensitivity analysis in order to assess how the net profitability of a SSNIP to the hypothetical monopolist would vary if a price increase lying within the 5-10% range, but other than 5% or 10%, were to be applied to the price of direct radio advertising. Ofcom only undertook this sensitivity under the “partial switcher to any media” methodology because under the “standard

49 An indicative analysis of the sample profile in terms of identifiable characteristics (e.g. types of advertising purchased, business location, target audience, turnover, etc) shows that those direct radio advertisers that switched to press in response to the 10% SSNIP were similar in profile to the entire sample of direct advertisers. Although this evidence is only indicative, it suggests that the more profitable case is less likely to occur in practice.
methodology” the SSNIP test is unprofitable with both a 5% and a 10% price increase.

7.72 The results appear to be robust to variations in the price increase imposed. A positive net profitability only arises under the more profitable and under the “partial switcher to any media” methodology:

7.72.1 where the SSNIP price increase is less than 7% and partial switchers are assumed not to switch any budget away from radio (the latter is an extreme assumption contrary to this group of respondents’ stated behaviour; thus the base case result appears robust); and

7.72.2 where the SSNIP price increase is less than 6% and partial switchers are assumed to switch 50% of their radio advertising budget away from radio.

7.73 It should be noted in addition that, as discussed in paragraph 7.69 above, the more profitable case is an extreme case that is unlikely to materialise.

7.74 Annex 4 contains further detail on this sensitivity analysis.

Inclusion of cost savings

7.75 This sensitivity relaxes the previous assumption of zero marginal costs (explained in paragraph 7.29 to 7.37) by taking into account any reduction in avoidable costs resulting from a reduction in the volume of direct radio advertising supplied post-SSNIP. In some cases, it is possible that such cost savings may offset a post-SSNIP net revenue deficit (i.e. where the gain in revenue on sales to customers who do not switch away from radio is exceeded by the foregone revenue from sales to switchers).

7.76 There are two types of avoidable costs associated with the supply of direct radio advertising:

7.76.1 avoidable costs that are directly related to the level of revenue generated by a radio station; and

7.76.2 cost savings related to reduced advertising sales activity.

Avoidable costs that are directly related to the level of revenue generated by a radio station

7.77 Radio stations incur two sets of costs that are levied as a fixed proportion of the net broadcasting revenue they generate (where net broadcasting revenue is composed of net advertising revenue and net sponsorship revenue):

7.77.1 the annual Ofcom licence fee; and

7.77.2 a set of royalty payment fees.

7.78 The annual Ofcom licence fee is charged to licensed radio station operators and is calculated as a percentage of qualifying revenue.\(^50\) Radio stations are also charged a set of royalty fees, such as royalties for music played by radio stations for artists and

\(^50\) For more details see table 12 on page 13 of Ofcom’s Tariff Table 2005/06 issued on the 31st March 2005 (http://www.ofcom.org.uk/consult/condocs/socp/tariff/tariff_2005_06.pdf).
composers, royalty fees for music played by radio stations on behalf of record companies, or royalties specifically for music used in adverts.

7.79 Based on actual top band rates, the total cost to the hypothetical monopolist associated with licence and royalty fees would amount to 11.5% of total advertising revenue. As this charge is directly proportional to the total level of advertising revenue generated by the hypothetical monopolist, any loss in net revenue following the SSNIP will result in a cost saving in the shape of reduced licence and royalty fees and any increase in revenues following the SSNIP will result in additional costs being payable. Further detail on the model assumptions regarding licence and royalty fees is included in annex 5.

7.80 This analysis shows that the cost savings associated with reduced licence and royalty payments are relatively low. They account for 12% of the total cost savings required for the hypothetical monopolist to breakeven, i.e. for the price rise to become profitable. Therefore Ofcom’s conclusions are not affected by the inclusion of revenue related cost savings.

7.81 Annex 5 contains further detail on this sensitivity analysis.

Cost savings achieved from reduced advertising sales activity

7.82 As discussed in section 6.5, the only category of avoidable costs directly associated with the supply of direct radio advertising is likely to consist of advertising sales staff costs\(^{51}\).

7.83 Aside from advertising sales staff costs, the Ofcom licence fee and royalty payments, there is no evidence to suggest that any of the other cost categories incurred by radio stations supplying direct radio advertising would be avoided as a direct result of a reduction in the volume of advertising sales\(^{52}\).

7.84 In order to estimate and quantify the magnitude of cost savings achieved directly as a result of the reduced volume of advertising sales in response to the SSNIP, Ofcom has estimated a volume-related measure for the marginal cost of supplying a unit of advertising airtime. Aggregating the marginal costs saved across all units of advertising airtime no longer supplied provides an estimate of the cost savings achieved.

7.85 A number of volume measures for advertising airtime may be used, including a standard 30 second advertising slot (‘30 second slot’) or the delivery of a commercial impact. Due to practical difficulties associated with reconciling the volume of

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\(^{51}\) This is because, while a marginal reduction in the volume of advertising airtime sales may not warrant the laying off of an advertising sales employee (or a change from a full-time to a part-time post), it is reasonable to assume that advertising sales staff costs may fall in response to a sufficiently large and lasting reduction in the volume of advertising sales. It may be that a proportion of other types of staff costs (e.g. senior management costs) may be directly attributable to advertising sales activity but the extent to which such staff costs may be avoidable following a reduction in the volume of advertising sales is likely to be very limited.

\(^{52}\) It seems more appropriate to treat costs associated with engineering (e.g. transmitter operating costs and studio maintenance), commercial premises, marketing, promotion, audience research and content rights as fixed or sunk costs that are not avoided as a result of reductions in the volume of advertising sales. Commercial production and legal and professional costs are likely to be shared across a range of radio station activities (e.g. in-house programme production or the negotiation of transmission contracts) and are therefore unlikely to be fully or directly avoided following a reduction in the volume of advertising sales.
commercial impacts acquired by direct radio advertisers with the realised audience figures achieved during that advertising airtime, Ofcom considered it more practical to use a 30 second slot as the unit measure of advertising airtime volume.

7.86 Due to the lack of information available on the specific nature of the cost function faced by a supplier of direct radio advertising, Ofcom considered it practical to use the average avoidable cost (‘AAC’) of supplying a 30 second slot as a proxy for the marginal cost of supplying a 30 second slot. As explained in annex 5, this is a conservative assumption.

7.87 The methodology Ofcom has adopted for testing the robustness of the base case SSNIP test results to the inclusion of cost savings associated with reduced advertising sales staff costs consists of:

7.87.1 calculating the AAC per 30 second slot required for the hypothetical monopoly supplier of direct radio advertising to breakeven (i.e. the AAC per 30 second slot required to overturn the base case SSNIP test results or ‘critical AAC’);

7.87.2 estimating the actual AAC per 30 second slot; and

7.87.3 comparing the critical AAC with the estimated actual AAC – if the estimated actual AAC falls short of the critical AAC, then it can be concluded that the cost savings achieved are not sufficiently large to overturn the base case SSNIP test results.

7.88 Each of the three stages of the proposed methodology is discussed in greater detail in annex 6.

7.89 The base case SSNIP test results are robust to the inclusion of cost savings achieved directly as a result of reduced advertising airtime sales activity.

7.90 The 10% SSNIP is always unprofitable even after the inclusion of cost savings from reduced advertising airtime sales activity. Even under the more extreme assumptions (i.e. the more profitable case, partial switchers transferring 100% of their direct radio advertising budget to press (thereby maximising cost savings) and an average supply of 5 minutes of advertising airtime per hour), the estimated actual AAC does not account for more than 14% of the critical AAC required under the 10% SSNIP for the base case SSNIP test results to be reversed.

7.91 The 5% SSNIP is also unprofitable after the inclusion of cost savings under the central survey case and irrespective of the proportion of direct radio advertising budget transferred to press by partial switchers. The estimated actual AAC is substantially lower than the critical level of AAC required for breakeven (the former accounting for less than 5% of the latter).

7.92 Under the 5% SSNIP, the inclusion of cost savings makes the price increase profitable (i.e. the estimated actual AAC exceeds the level of AAC required to reverse the base case SSNIP test results) only if:

7.92.1 the more profitable case is assumed (i.e. the weakest possible competitive constraint imposed by press advertising; and

7.92.2 partial switchers transfer over 20% of their direct radio advertising budget to press; and
7.92.3 it is assumed that the hypothetical monopolist radio station supplies on average 10 minutes of radio advertising airtime per hour.

7.93 It is important to highlight that, as explained in paragraph 7.69, the more profitable case is an extreme case which would be very unlikely to arise.

Cost savings achieved from reduced advertising sales activity and revenue related cost savings

7.94 Ofcom has calculated the critical average avoidable cost (‘AAC’) of supplying a 30 second slot following the same methodology as described in paragraph 7.87, but including also revenue related cost savings. In this case, the estimated actual AAC of supplying a 30 second slot as a proportion of the critical AAC is virtually the same as when revenue related cost savings are excluded (results reported in paragraphs 7.90 to 7.93). This is because the cost savings associated with reduced licence and royalty payments are relatively low (see paragraph 7.80).

7.8. Competitive price level

7.95 The validity of the SSNIP test results relies on the assumption that the prices for direct radio advertising are at, or at least not significantly above, the competitive level prior to the imposition of the SSNIP. The way the price for direct radio advertising is negotiated may provide support to the assumption that the prevailing price level is near the competitive level. As set out in section 4.3 above, it is standard industry practice for discounts on a radio station’s rate card to be negotiated between the direct radio advertiser and the radio station. The widespread application of discounts may provide evidence of a strong competitive dynamic being present in the market, although this has to be weighed against the lack of transparency of this negotiation process. In addition, Ofcom notes that the number of radio stations has increased significantly over the last ten years. Nevertheless, as the geographic dimension of direct radio advertising markets is likely to be regional or local, the degree of competition across different geographic markets may vary.

7.96 Ofcom has attempted to perform a high level profitability analysis to understand whether the assumption that current prices are at, or at least not significantly above, the competitive level is likely to be reasonable. This analysis is high level and preliminary, and does not prejudge the view that Ofcom may reach on the profitability of the sector with a more detailed and rigorous analysis. Further, it should be noted that as the geographic dimension of direct radio advertising markets is likely to be regional or local, any view on whether prices are at the competitive level or not in the market for direct radio advertising would require an analysis of profitability with respect to that particular geographic market.

7.97 For this high level profitability analysis Ofcom has calculated the return on sales (ROS)\(^{53}\) as a measure of profitability, i.e. the ratio of operating profit to turnover. Ofcom has undertaken this analysis with data that is currently readily available.

7.98 Radio groups range in size and activities they undertake: while some focus on the radio sector, others are also involved in publishing, TV, etc. In this analysis Ofcom has focused on the profitability of radio groups’ radio activities.

\(^{53}\) Alternative measures (such as return on capital or the internal rate of return) calculate profitability with respect to assets. We could not calculate the internal rate of return due to data limitations. As radio is a sales driven business and is not very capital intensive we have chosen to apply ROS. A more detailed profitability analysis may use a range of measures.
Radio Advertising Market Research

7.99 Data on the profitability of individual lines of the radio business (e.g. direct radio advertising only) was not available.\(^{54}\) Hence for this high level profitability analysis Ofcom has used aggregate profit data (i.e. aggregate profit earned as a result of all radio activities, including direct as well as indirect advertising, sponsorship, promotions, advertisement production, etc). Ofcom’s analysis is therefore based on the assumption that direct radio advertising is not more profitable than other radio activities (e.g. indirect advertising, sponsorship, etc).

7.100 Ofcom’s high level profitability analysis is described in annex 7. This analysis shows that the aggregate profitability of direct radio advertising does not appear to be an outlier when compared to the profitability of a set of companies in other sectors with similar capital intensity and risk. Ofcom has also undertaken a review of UK competition law decisions relating to the assessment of advertising markets and to the application of profitability analysis which appears most relevant to this case (summarised in Annex 7).

7.101 A limitation of this high level profitability analysis is that, if some radio stations incur costs inefficiently, then prices could be above competitive levels despite profitability not appearing much higher than in other sectors. However, determining whether that is the case would be difficult and is beyond the scope of this report.

7.102 Due to the limitations highlighted above and in annex 7, Ofcom has only been able to take a high level view (but nonetheless useful and informative) of radio advertising profitability.

7.103 Hence, given the way radio advertising is traded, and on the basis of this high-level and preliminary profitability analysis, Ofcom has assumed that there is not a significant risk of the cellophane fallacy (see paragraph 7.38 above) arising in its SSNIP test analysis. However, as the geographic direct advertising market is likely to be local or regional, in the context of a particular investigation Ofcom would take account of the conditions of competition in the particular local or regional geographic market in reaching a final conclusion as to whether prices are likely to be above competitive levels.

7.9. Summary of methodological limitations

7.104 Table 11 below:

7.104.1 sets out a summary of the methodological limitations encountered in relation to the direct radio advertising SSNIP test analysis;

7.104.2 briefly describes the testing undertaken to address each methodological limitation; and

7.104.3 concludes on the impact of each methodological limitation on the base case SSNIP test results.

\(^{54}\) Calculating the profitability of individual lines of business (e.g. local radio advertising) typically requires complex allocations of those costs that are common across the different lines of business, as well as identifying what costs can be directly attributed to the different radio activities.
7.10 Additional market research results related to SSNIP test findings

7.10.5 This section discusses the qualitative research findings which provide additional context for the interpretation of the quantitative SSNIP test findings. In particular it discusses the evidence on the interchangeability of direct radio and press advertising, and the relative cost of direct radio advertising.

**Interchangeability of direct radio and press advertising**

7.10.6 The survey evidence suggests that while different media exhibit unique and distinct characteristics, there is perceived to be, to varying degrees, a level of overlap between the attractiveness of different media to advertisers. Evidence indicates that 57% of direct radio advertisers agree or strongly agree with the statement that “if radio costs increased, the direct radio advertiser would spend more of its budget on press advertising”.55 This may provide some support to the proposition that direct radio advertisers view press and radio advertising as “perceptual substitutes” given a budget constraint on advertising expenditure.

7.10.7 Survey evidence suggests that direct radio advertisers often use radio alongside other media. This familiarity with the purchase of other media, suggests that, for the majority, barriers to purchasing alternate media to radio do not exist. For some direct radio advertisers, radio is used alongside press, bus backs or posters and direct marketing.56 Across the sample of direct radio advertisers, 78% use local or regional

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55 Supporting document vol 1.
56 Supporting document vol 1.
press and 17% use national press. This indicates that the likelihood of direct radio advertisers purchasing press advertising alongside radio is significantly greater than the use of other media, such as direct mail or outdoor media. Of those direct radio advertisers that used other media alongside radio in a recent advertising campaign, 85% purchased local or regional press while 6% purchased national press.58

7.108 A majority (55%) of direct radio advertisers said that, if they were to run their most recent campaign again and the use of radio were no longer a feasible option, they would use local or regional press in its place suggesting a perceptual substitutability between the two products for a large proportion of direct radio advertisers.59 This indicative finding is further supported by survey evidence indicating that 55% of direct radio advertisers agree with the statement that “they see press and radio advertising as interchangeable”.60

7.109 While the additional survey evidence suggests that direct radio advertisers view press advertising as the next best alternative to direct radio advertising, this does not provide conclusive evidence that the price of radio advertising is or is not constrained by press advertising such that they are likely to be part of the same relevant product market.

Relative cost of direct radio advertising

7.110 Survey evidence suggests that direct radio advertisers often perceive radio to be the most cost-effective medium for reaching a given target audience with 12% citing cost effectiveness as a reason for using radio on its own (while 32% stated that radio best suited the campaign objectives and the brand or product being advertised and 27% stated that radio was the best way of reaching the target audience).61 Moreover, all respondents in the qualitative research felt that they could negotiate a good deal for the price of radio advertising.62 However, in contrast, more than half (56%) of direct radio advertisers feel that the cost of radio is already too high and 66% disagree with the statement that “radio is a cheap media”.63

7.111 The survey evidence about direct radio advertiser perceptions of the cost of direct radio advertising indicates that views are mixed and sometimes contradictory.

Conclusion on additional market research results related to SSNIP test findings

7.112 While the evidence indicates that direct radio and press are perceived as substitutable and interchangeable by a majority of direct radio advertisers, this may be because press advertising is simply viewed as the next best alternative to direct radio advertising rather than because the pricing of direct radio advertising is constrained by press. The evidence does show that attitudes held by direct radio advertisers about radio advertising are not inconsistent with responses given to the hypothetical SSNIP test questions.

57 Supporting document vol 1.
58 Supporting document vol 1.
59 Supporting document vol 1.
60 Supporting document vol 1.
61 Supporting document vol 1.
63 Supporting document vol 1.
7.11. **Conclusion on constraints on the price of direct radio advertising**

7.113 The base case SSNIP test results indicate that the price of direct radio advertising appears to be constrained by press advertising. These results are robust to a range of sensitivity analyses. Therefore, the quantitative evidence would appear to suggest that in general it can be expected that the scope of the relevant product market for direct radio advertising may include at least press advertising.  

7.114 While the balance of evidence appears to indicate that direct radio advertising is likely to be constrained by press advertising and therefore that in general the relevant product market for direct radio advertising is likely to include at least press advertising, this view on the scope of the relevant product market for direct radio advertising would only act as a starting position for Ofcom. In the context of a complaint, dispute, market review or provision of submissions to the OFT in relation to mergers where the definition of the relevant market for direct radio advertising is required, the precise scope of the relevant product and geographic market would need to be assessed based on the specific circumstances and facts of the particular case in question.

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64 In order to test whether direct radio and press advertising constitute a separate relevant market, one would need to analyse whether a hypothetical monopolist of direct radio and press advertising would be able to increase prices by 5-10% permanently. The data from Ofcom’s survey does not allow this issue to be explored further.
Section 8

Competitive constraints on indirect radio advertising

8.1. Introduction to analysis of constraints on indirect radio advertising

8.1 This section analyses the competitive constraints imposed by other media on the pricing of indirect radio advertising as well as other external constraints faced by suppliers of indirect radio advertising airtime. This report does not attempt to reach a view on the scope of the relevant market for indirect radio advertising. A view on the product and geographic scope of the relevant market would need to be formed by taking account of the specific facts or circumstances of the particular case at hand.

8.2 The conclusions contained in this report are intended to constitute Ofcom’s starting point position in cases where an understanding of the competitive constraints faced by indirect radio advertising is required - whether in the context of a complaint, dispute, market review or in providing submissions to the OFT in relation to mergers.

8.3 In order to identify and quantify the strength of the competitive constraints imposed by other media on the pricing of indirect radio advertising Ofcom has carried out a SSNIP test type analysis. As described in section 6.2, price and quantity data is not available in a sufficiently consistent format from the market. Therefore Ofcom commissioned a survey to collect qualitative and quantitative evidence to enable an assessment of the extent to which indirect radio advertising is constrained by other media. The survey sought to understand how the media mix is decided, how price is determined, factors explaining historical changes to the media mix and past reactions to changes in radio prices, as well as responses to a SSNIP test type question.

8.4 This analysis has focused on the scope for substitutability between different media from a demand-side perspective. Ofcom's view regarding supply-side substitution in radio advertising was discussed in Section 7.1.

8.2. Survey SSNIP question

8.5 In the quantitative phase of market research, media buying agencies were asked how they would respond to the following question:

“Thinking about this hypothetical scenario in relation to your agency’s media expenditure over the last 12 months – and with the aim of trying to establish a general rule – which of the following options best describes how your agency would have reacted if the cost of buying radio had increased by 5% a year ago?”

8.6 Respondents fell into the following sub-categories:

8.6.1 agencies that maintain radio spend (and get fewer impacts);

8.6.2 agencies that increase radio spend (i.e. fully absorbing the 5% price increase and receiving the same number of impacts); and

Respondents were asked how they would react to a 5% and 10% price increase. The order in which the price rises were presented alternated across respondents.
8.6.3 agencies that switch at least some of their radio spend away from radio:

8.6.4 to a “direct substitute” (i.e. an immediate reallocation to an identified alternative media or media mix);

8.6.5 “back into the pot” (i.e. a proportion of budget withdrawn from radio and reallocated in due course);

8.6.6 to an “unknown direct substitute” (i.e. an immediate reallocation to an unidentified alternative media or media mix).

8.7 Agencies that switched some of their spend to a direct substitute could switch all their spend to one media (e.g. TV only) or to a range of media (e.g. a proportion of spend switched to TV, a proportion to internet, etc).

8.3. Key points from survey responses

8.8 The survey responses to the SSNIP test question are shown in Table 12 below.

<table>
<thead>
<tr>
<th>Summary</th>
<th>Number of agencies</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total spend remaining on radio</td>
<td>19</td>
<td>20</td>
<td>230,222,810</td>
<td>193,486,720</td>
<td></td>
</tr>
<tr>
<td>Total switched from radio, of which:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to press</td>
<td>3</td>
<td>4</td>
<td>3,488,960</td>
<td>4,379,006</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to cinema</td>
<td>1</td>
<td>1</td>
<td>232,140</td>
<td>309,520</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to radio sponsorship</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to TV</td>
<td>3</td>
<td>5</td>
<td>2,259,898</td>
<td>9,980,614</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to outdoor</td>
<td>1</td>
<td>2</td>
<td>232,140</td>
<td>351,100</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to internet</td>
<td>2</td>
<td>4</td>
<td>2,456,226</td>
<td>5,871,931</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched back in the pot</td>
<td>11</td>
<td>12</td>
<td>23,180,370</td>
<td>44,254,000</td>
<td></td>
</tr>
<tr>
<td>•Total £s switched to unknown media</td>
<td>2</td>
<td>6</td>
<td>2,288,456</td>
<td>55,335,109</td>
<td></td>
</tr>
<tr>
<td>TOTAL SPEND ON UNKNOW</td>
<td>19</td>
<td>20</td>
<td>264,856,000</td>
<td>313,968,000</td>
<td></td>
</tr>
</tbody>
</table>

Base: all agencies

8.9 A few key points should be noted:

8.9.1 no agencies said that they would fully absorb the price rise and increase radio spend;

8.9.2 most agencies said they would switch at least some budget away from radio while some said they would maintain their initial level of spend on radio (acquiring fewer impacts);

8.9.3 the budget taken away from radio by agencies that switch to an identified direct substitute was allocated to a range of alternative media (i.e. TV, internet, press, outdoor, cinema) individually or in combination; and

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66 Section 6.1 explains how the results from the survey have been weighted.
8.9.4 A significant proportion of budget taken away from radio by agencies was switched “back into the pot” or switched directly to an unknown alternative media or media mix. The constraint imposed by this switching can’t be attributed to any individual media. This is discussed further below.

8.4. Interpretation of categories of respondents

8.10 Ofcom has interpreted the impact of the different categories of respondent on the hypothetical monopolist’s profitability as follows.

8.11 Those agencies that maintain their radio spend (and get fewer impacts) in response to the price increase are considered to have no impact on the profitability of the hypothetical monopolist under a zero marginal cost assumption. They generate cost savings when this assumption is relaxed.

8.12 Those agencies that increase their radio spend would be profitable to the hypothetical monopolist. However, it should be noted that no agencies said that their response to the price increase would be to increase their radio spend.

8.13 Within the category of agencies that switch some radio budget away, some are considered to place a competitive constraint on the pricing of indirect radio advertising but others are not.

8.14 Agencies that switch some radio budget to a known direct substitute are considered to constrain the hypothetical monopolist for the purpose of the SSNIP test analysis as they place a direct competitive constraint on radio that can be identified and measured.

8.15 Agencies that switch to an “unknown direct substitute” and those that place switched radio budget “back into the pot” are not considered as part of the SSNIP test analysis of competitive constraints as the constraint imposed by this switching can’t be attributed to any particular media.

8.16 Further, the constraint on the hypothetical monopolist from agencies that place switched radio budget “back into the pot” does not arise from a direct competitive constraint, but from agencies’ decision to ‘stop buying radio’. Therefore these agencies are not considered to constrain the hypothetical monopolist for the purpose of the SSNIP test analysis of competitive constraints. These agencies however would affect the overall own-price elasticity of demand for indirect radio advertising.

8.17 The proportion of the budget that is kept in radio by agencies that switch some radio budget away can be profitable to the hypothetical monopolist (if the radio budget is increased, or if less impacts are purchased and initial radio budget is maintained under a positive marginal cost assumption (i.e. cost savings would be achieved in this case)) or neutral (if less impacts are purchased and initial radio budget is maintained under a zero marginal cost assumption (i.e. there is no change in revenue and no offsetting cost savings)). Assumptions made regarding the proportion of the budget that is kept in radio by agencies that switch some radio budget away are further discussed in paragraphs 8.23 to 8.26 below.

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67 These agencies have a unit elastic own price elasticity of demand for indirect radio advertising airtime.

68 These agencies have an inelastic own price elasticity of demand for indirect radio advertising airtime.
8.5. Methodology for analysing competitive constraints

8.18 As explained in section 6.1, from a theoretical point of view, one would approach the issue of market definition by conducting successive SSNIP tests until the smallest group of products on which a hypothetical monopolist could profitably raise prices is identified. However, this approach is difficult to apply in practice, as it would require the SSNIP test question to be repeated to interviewees possibly several times. It was difficult already for agencies to answer the initial hypothetical indirect radio advertising SSNIP test question that was put to them in the survey (i.e. imagining a price increase across all radio group sales houses and radio stations). Therefore conducting successive SSNIP tests to incrementally add candidate substitute products to the relevant product market would not have been feasible. As explained in section 6.1, Ofcom’s analysis has sought to identify what alternative media appear to pose the strongest competitive constraint on indirect radio advertising. Ofcom’s analysis does not address the issue of product market definition.

8.19 Given these limitations, Ofcom has explored different approaches to analysing the competitive constraints imposed by different media on the price of indirect radio advertising. Ofcom considered that a combinatorial approach would be suitable. Under such an approach Ofcom would analyse whether the constraint imposed by different combinations of alternative media would constrain the pricing of indirect advertising. Ofcom has adopted two different combinatorial approaches:

8.19.1 collective constraint: Ofcom has analysed whether switching away to all identified media taken together is sufficient to constrain the price of indirect radio advertising; and

8.19.2 pairwise comparison: Ofcom has analysed whether switching away to single identified media is sufficient to constrain the price of indirect radio advertising.

8.20 The following paragraphs describe each of these approaches in detail.

Collective constraint

8.21 Figure 2 below shows which categories of respondents are considered profitable (green background), unprofitable (red background) or neutral (clear background) for the SSNIP test analysis under the collective constraint approach, in the absence of cost savings.
8.22 The net profitability under the “collective constraint” methodology for the 5% SSNIP test is calculated as:

8.22.1 the gain in revenue from agencies that increase radio spend (calculated as their total 2005 radio spend*5%)\(^69\),

plus

8.22.2 the gain in revenue from the proportion of the budget of agencies that switch some radio budget away which is kept in radio (calculated as the proportion of their budget kept in radio which increases* 5%)

minus

8.22.3 the loss in revenue from the total budget switched to all identified media (i.e. TV, internet, press, cinema and outdoor).

8.23 For the second element above, an assumption is made as to what proportion of the budget not switched away (by agencies who switch at least some budget away) increases spend in order to maintain impacts acquired (as opposed to getting fewer impacts). This is assumed to vary between 0%-100%. This is because the agency is making a decision on behalf of a portfolio of clients that may exhibit heterogeneous preferences for indirect radio advertising. Some advertising clients may increase their radio spend if radio is a particularly effective medium for achieving their campaign objectives while other advertising clients may decide to switch some or all of their radio spend away. Therefore, the proportion of budget not switched away (by agencies who switch at least some away) may be interpreted as a proxy measure for the proportion of clients within an agency’s portfolio that decide to increase their radio spend following the SSNIP.\(^70\) However, it is reasonable to assume that the proportion of budget not switched which increases spend is small for two reasons.

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69 Note that, in practice, no agencies said they would increase their radio spend.

70 It may be that even if a proportion of clients within an agency’s portfolio decide to increase their radio spend, the value of radio spend switched away by that agency may outweigh the increase in radio spend from those clients, leading to an overall reduction in radio budget for that agency.
8.24 First, in the indirect radio advertising survey, no agencies said that their agency’s response would be to increase the radio budget. Those agencies that said that they would switch at least some budget away were not asked systematically whether the proportion of their budget that stays in radio would have experienced an increase in radio spend or would simply have obtained fewer impacts. However some agencies offered this information:

8.24.1 at the 5% SSNIP, the budget kept in radio by agencies who switched some budget away represented 72% of total pre-SSNIP radio budget for those agencies. Of that 72%, 4% of budget would have increased radio spend, whilst 35% would have obtained fewer impacts; how the remaining 33% of budget would have responded was not stated; and

8.24.2 at the 10% SSNIP, the budget kept in radio by agencies who switched some budget away represented 61% of total pre-SSNIP radio budget for those agencies. Of that 61%, 4% would have increased radio spend, whilst 32% would have obtained fewer impacts; how the remaining 23% of budget would have responded was not stated.

8.25 Second, as discussed in paragraph 8.23 above, an agency’s spend is composed of the spend of different clients. A client that switches a proportion of its budget away will not be expected to increase its radio spend on the proportion of the budget that is kept with radio, but rather to maintain the spend and get fewer impacts. A client that does not switch its spend away from radio at all may choose to increase radio spend (although it may also maintain spend and get fewer impacts).

8.26 Therefore, in its analysis Ofcom has calculated the net profitability of the SSNIP test assuming that at least a proportion of the budget not switched away (by agencies that switch at least some budget away) is increased to allow for the possibility that those clients who do not switch any budget away at all increase their radio spend. However, for the reasons set out above, the proportion of the budget not switched away (by agencies that switch at least some budget away) that increases is likely to be small.

**Pairwise approach**

8.27 In the pairwise approach, Ofcom has analysed the constraint imposed by each single media separately (e.g. TV) in two ways:

8.27.1 pairwise approach – less profitable case

8.27.2 pairwise approach – more profitable case

8.28 The approach followed under each of these is described in turn.

**Pairwise approach – less profitable case**

8.29 The following paragraphs describe the analysis that has been undertaken to test whether TV places a competitive constraint on indirect radio advertising under the less profitable case. The same analysis has been repeated for each other media to which respondents to the survey stated that they would switch some budget to.

8.30 Under the pairwise less profitable case approach, a gain in revenue for the hypothetical monopolist is only calculated from:
8.30.1 agencies that increase radio spend; and

8.30.2 the proportion of budget not switched away by agencies who switch some budget to the single media under analysis (e.g. TV).

8.31 Figure 3 below shows which categories of respondents would be considered profitable (green background), unprofitable (red background) or neutral (clear background), in the absence of cost savings.

**Figure 3: Profitability of different categories of SSNIP test respondents under pairwise less profitable case approach, in the absence of cost savings**

<table>
<thead>
<tr>
<th>Agencies that maintain radio spend</th>
<th>Agencies that increase radio spend</th>
<th>Agencies that put budget back into pot &amp; unknown direct substitute</th>
<th>Budget not switched to TV or any other media</th>
<th>Budget switched to TV</th>
<th>Budget switched to other media</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base: all agencies that switch some to TV</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.32 The net profitability under the “pairwise less profitable case” methodology for the 5% SSNIP test is calculated as:

8.32.1 the gain in revenue from agencies that increase radio spend (calculated as their total 2005 radio spend*5%)

plus

8.32.2 the gain in revenue from the proportion of the budget of agencies that switch some radio budget to TV which is not switched away from radio (calculated as their total budget not switched away from radio which increases * 5%);

minus

8.32.3 the loss in revenue from the total budget switched to TV.

8.33 For the second element above, an assumption is made as to what proportion of the budget not switched away (by agencies who switch at least some) increases in response to the price rise in order to maintain impacts acquired. This is assumed to vary between 0%-100%. However, for the reasons set out in paragraphs 8.23 to 8.26, that proportion is likely to be small.

**Pairwise approach – more profitable case**

8.34 The following paragraphs describe the analysis that has been undertaken to test whether TV places a competitive constraint on indirect radio advertising under the more profitable case. The same analysis has been repeated for each other media to which respondents to the survey stated that they would switch some budget to.

---

71 Note that, in practice, no agencies said they would pay the price increase.
8.35 Under the pairwise more profitable case approach, a gain in revenue to the hypothetical monopolist is calculated from:

8.35.1 agencies that increase radio spend; and

8.35.2 the proportion of budget not switched away by all agencies who switch some budget away from radio.

8.36 Figure 4 below shows which categories of respondents would be considered profitable (green background), unprofitable (red background) or neutral (clear background), in the absence of cost savings.

8.37 In this scenario the total gain in revenue to the hypothetical monopolist is larger than in the previous case and hence the SSNIP test is more profitable.

8.38 Note that the example below relates to the assessment of whether TV places a competitive constraint on indirect radio. A similar reasoning has been followed to test whether other specific media place a competitive constraint on indirect radio.

Figure 4: Profitability of different categories of SSNIP test respondents under pairwise more profitable case approach, in the absence of cost savings

8.39 The net profitability under the “pairwise more profitable case” methodology for the 5% SSNIP test is calculated as:

8.39.1 the gain in revenue from agencies that increase radio spend (calculated as their total 2005 radio spend*5%);

plus

8.39.2 the gain in revenue from the proportion of the budget of agencies that switch some radio budget away from radio which is not switched away (calculated as their total budget not switched away from radio which increases * 5%);

minus

8.39.3 the loss in revenue from the total budget switched to TV.

Note that, in practice, no agencies said they would increase their radio spend.
8.40 For the second element above, an assumption is made as to what proportion of the budget not switched away (by agencies who switch at least some) increases in response to the price rise in order to maintain impacts acquired. This is assumed to vary between 0%-100%. However, for the reasons set out in paragraphs 8.23 to 8.26, that proportion is likely to be small.

**Advantages and disadvantages of each methodology**

8.41 Table 13 below summarises each methodology and their advantages and disadvantages.
party sales houses. 8.44 It is assumed that when sales are made through the hypothetical monopolist’s sales house, the following types of cost might be avoided by the vertically integrated hypothetical monopolist indirect radio advertising supplier:

8.44.1 sales house staff salary costs (assumed to be a positive function of the number of impacts sold); and

8.43 For the purpose of this analysis, it is assumed that a proportion of the hypothetical monopolist’s budget is sold through its own sales house, and another proportion sold through third party sales houses. This proportion reflects the current split in the industry. It could however be the case that a hypothetical monopolist would own its own sales house, such that 100% of the indirect radio advertising revenue would be accounted for by sales through its own sales houses.

8.42 As a result of some budget switching away from radio or the purchase of fewer impacts, the hypothetical monopolist might be able to avoid some costs. Cost savings would have a positive impact on the profitability of a SSNIP.

Table 13: Summary of methodologies

<table>
<thead>
<tr>
<th>Method</th>
<th>Constraint imposed by</th>
<th>Pros and cons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Collective constraint</td>
<td>ALL IDENTIFIED MEDIA</td>
<td>•Captures collective constraint imposed by group of identified media</td>
</tr>
<tr>
<td></td>
<td>*Gain from the proportion of budget not switched by agencies that switch some radio budget away (identified and unidentified)</td>
<td>•More reflective of how SSNIP test question was asked</td>
</tr>
<tr>
<td></td>
<td>*Loss from the total budget switched to all identified media</td>
<td>•Does not isolate constraint imposed by individual media</td>
</tr>
<tr>
<td>Pairwise comparison – less profitable case</td>
<td>ONE SPECIFICALLY IDENTIFIED MEDIA</td>
<td>•Isolates constraint imposed by each individual media</td>
</tr>
<tr>
<td></td>
<td>*Gain from the proportion of the budget not switched away by agencies that switch some radio budget to the specifically identified media (e.g. TV)</td>
<td>•Compares gain and loss from same base of agencies</td>
</tr>
<tr>
<td></td>
<td>*Loss from budget switched to the specifically identified media (e.g. TV)</td>
<td>•Smaller bases of agencies*</td>
</tr>
<tr>
<td></td>
<td></td>
<td>•Does not include a gain from agencies that partially switch to a media different from the media under analysis (identified and unidentified) and who increase their budget remaining with radio</td>
</tr>
<tr>
<td>Pairwise comparison – more profitable case</td>
<td>ONE SPECIFICALLY IDENTIFIED MEDIA</td>
<td>•Captures collective constraint imposed by group of identified media</td>
</tr>
<tr>
<td></td>
<td>*Gain from the proportion of budget not switched by agencies that switch some radio budget away (identified and unidentified)</td>
<td>•More reflective of how SSNIP test question was asked</td>
</tr>
<tr>
<td></td>
<td>*Loss from budget switched to the specifically identified media</td>
<td>•Does not isolate constraint imposed by individual media</td>
</tr>
</tbody>
</table>

*At the 10% SSNIP the bases are: TV (5 agencies, £81m initial radio spend); internet (4 agencies, £79m initial radio spend); press (4 agencies, £74m initial radio spend); outdoor (2 agencies, £32m initial radio spend); cinema (1 agency, £31m initial radio spend).

*At the 5% SSNIP the bases are: TV (3 agencies, £45m initial radio spend); internet (2 agencies, £36m initial radio spend); press (3 agencies, £43m initial radio spend); outdoor (1 agency, £31m initial radio spend).

8.6 Methodology for analysing cost savings

8.44 It is assumed that when sales are made through the hypothetical monopolist’s sales house, the following types of cost might be avoided by the vertically integrated hypothetical monopolist indirect radio advertising supplier:

8.44.1 sales house staff salary costs (assumed to be a positive function of the number of impacts sold); and

73 Ofcom analysis suggests that approximately 90% of total indirect radio advertising revenue is accounted for by sales through own sales houses, whilst 10% is accounted for by sales through third party sales houses.
8.44.2 Sales staff commissions (revenue related).

8.45 When sales are made through third party sales houses, it is assumed that the only type of cost affected (for the purpose of the profitability of the hypothetical monopolist radio advertising supplier) is the commission paid to the third party sales house, which is revenue related.

8.46 The hypothetical monopolist is also assumed to save royalty fees and Ofcom licence fees, which are revenue related costs, on any advertising revenue foregone following the SSNIP. As in the direct radio advertising analysis, we assume that the total cost to the hypothetical monopolist associated with licence and royalty fees amounts to 11.5% of total radio advertising revenue (see paragraph 7.79).

8.47 We have calculated cost savings from:

8.47.1 Budget switched away: in this case cost savings are achieved as a result of saved staff salary costs, saved staff commission and saved third party sales house commission; and

8.47.2 Budget which maintains spend, gets less impacts: in this case cost savings only arise from reduced staff salary costs. Sales staff commission and third party sales house commission do not vary as they are revenue related.

8.48 These cost savings are net of cost increases resulting from the proportion of the budget which increases in response to the price rise (for agencies that switch some budget away), which will face higher revenue related sales staff commission, third party sales house commission, royalty fees and licence fees.

8.49 Annex 8 contains more detail on the calculation of these cost savings.

8.7 Results from SSNIP test analysis of competitive constraints

8.50 The results from applying each methodology to the survey data are discussed in turn. This analysis is based on the weighted data from the survey. A description of the methodology adopted for weighting the data can be found in section 6.4.

8.51 Each table below shows:

8.51.1 The net profit change resulting from the price increase expressed as a proportion of the total pre-SSNIP indirect radio spend; and

8.51.2 The proportion of the budget not switched away (by agencies that switch some budget away) that would need to increase the radio spend in response to the price increase for the results to be overturned (i.e. for the SSNIP test to be profitable to the hypothetical monopolist).

Collective constraint

8.52 Table 14 below shows the collective constraint imposed by all identified media taken together.
Table 14: Constraint on hypothetical monopolist from all identified media

<table>
<thead>
<tr>
<th>% of budget not switched which increases radio spend (all agencies who switch some away)</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
</tr>
</thead>
<tbody>
<tr>
<td>% of budget not switched which increases radio spend (all agencies who switch some away)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>93%</td>
<td>100%</td>
</tr>
<tr>
<td>Net profit change (as a % of pre-SSNIP radio budget) – no cost savings</td>
<td>-3.3%</td>
<td>0%</td>
</tr>
<tr>
<td>Net profit change (as a % of pre-SSNIP radio budget) – cost savings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>0%</td>
<td>91%</td>
<td>100%</td>
</tr>
<tr>
<td>-2.7%</td>
<td>0%</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

8.53 At the 10% price increase, the price increase is always unprofitable. At 5% the price increase would only be profitable if more than 93% of budget not switched by agencies that switch away partially (or 91% if cost savings are taken account of) increases the spend on radio.

8.54 For the 5% SSNIP result to be overturned, it would be necessary that a large proportion of budget not switched away from radio increases the radio spend. However, for the reasons set out in paragraphs 8.23 to 8.26, that proportion is likely to be small.

8.55 On this basis, it appears that the price of indirect radio advertising is constrained overall by aggregate switching to a range of different identified media (but we cannot conclude whether any individual media is a sufficiently strong competitive constraint based on this methodology).

**Pairwise approach – less profitable case**
8.56 Table 15 below show the results of the SSNIP test under the pairwise less profitable case approach for the 5% and 10% price increase. Note that each row shows the results of repeating the analysis described above for each media separately. Therefore, the first line shows the constraint imposed by switching to press; the second line shows the constraint imposed by switching to TV; etc.

8.57 As noted above, the sample base for this methodology is smaller than in the other two, so results should be treated with caution.

8.58 Table 15 below shows the constraint imposed by each identified media in the less profitable case.
8.50 For the press results to be overturned at the 10% SSNIP (they cannot be overturned at the 5% level), it would be necessary that a relatively large proportion of budget not switched (by agencies who switch some budget away) increases the spend on radio following the price rise. However, for the reasons set out in paragraphs 8.23 to 8.26, that proportion is likely to be small. Therefore, it appears on balance that the pricing of indirect radio advertising is constrained by TV, online and press under this methodology.

### Table 15: Constraint on hypothetical monopolist from each identified media – less profitable case

<table>
<thead>
<tr>
<th>Net profit change (as a % of pre-SSNIP radio budget)</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of budget not switched which increases radio spend (all agencies who switch some away)</td>
<td>% of budget not switched which increases radio spend (all agencies who switch some away)</td>
</tr>
<tr>
<td></td>
<td>0% 100%</td>
<td>0% 100%</td>
</tr>
<tr>
<td>Press – no cost savings</td>
<td>-1.3% -0.7% -1.4% 0% 0.3%</td>
<td></td>
</tr>
<tr>
<td>Press – cost savings</td>
<td>0% 100% 0% 78% 100%</td>
<td></td>
</tr>
<tr>
<td>Cinema – no cost savings</td>
<td>-1.1% -0.6% -1.2% 0% 0.3%</td>
<td></td>
</tr>
<tr>
<td>Cinema – cost savings</td>
<td>0% 100% 0% 100%</td>
<td></td>
</tr>
<tr>
<td>TV – no cost savings</td>
<td>-0.9% -0.2% -3.2% -1.3%</td>
<td></td>
</tr>
<tr>
<td>TV – cost savings</td>
<td>0% 100% 0% 100%</td>
<td></td>
</tr>
<tr>
<td>Outdoor – no cost savings</td>
<td>-0.1% 0% 0.4% -0.1% 0% 0.7%</td>
<td></td>
</tr>
<tr>
<td>Outdoor – cost savings</td>
<td>0% 13% 100% 0% 12% 100%</td>
<td></td>
</tr>
<tr>
<td>Online – no cost savings</td>
<td>-0.9% 0% -0.4% -1.9% 0% 0.1%</td>
<td></td>
</tr>
<tr>
<td>Online – cost savings</td>
<td>0% 100% 0% 100%</td>
<td></td>
</tr>
<tr>
<td>Cinema – no cost savings</td>
<td>-0.1% 0% 0.4% -0.1% 0% 0.7%</td>
<td></td>
</tr>
<tr>
<td>Cinema – cost savings</td>
<td>0% 13% 100% 0% 11% 100%</td>
<td></td>
</tr>
</tbody>
</table>

8.59 The following points should be noted:

8.59.1 the 5% price increase is always unprofitable in respect of TV, online and press;

8.59.2 the 10% price increase is always unprofitable in respect of TV and online;

8.59.3 for press, the 10% SSNIP would only be profitable if more than 80% of budget not switched away (or 78% taking account of cost savings) increased the spend in radio; and

8.59.4 for outdoor and cinema, the results are overturned with a lower proportion of budget not switched increasing the spend in radio.
Pairwise approach – more profitable case

8.61 Table 16 below shows the results of the SSNIP test under the pairwise more profitable case for the 5% and 10% price increase. Note that each row shows the results of repeating the analysis described above for each media. Therefore, the first line shows the constraint imposed by switching to press; the second line shows the constraint imposed by switching to TV; etc.

8.62 Table 16 below shows the competitive constraint imposed by each identified media in the more profitable case.

### Table 16: Constraint on the hypothetical monopolist from each identified media – more profitable case

<table>
<thead>
<tr>
<th>Net profit change (as a % of pre-SSNIP radio budget)</th>
<th>5% SSNIP</th>
<th>10% SSNIP</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>% of budget not switched which increases radio spend (all agencies who switch some away)</td>
<td>% of budget not switched which increases radio spend (all agencies who switch some away)</td>
</tr>
<tr>
<td></td>
<td>0%</td>
<td>37%</td>
</tr>
<tr>
<td>Press – no cost savings</td>
<td>-1.3%</td>
<td>0%</td>
</tr>
<tr>
<td>Press – cost savings</td>
<td>0%</td>
<td>35%</td>
</tr>
<tr>
<td>TV – no cost savings</td>
<td>-1.1%</td>
<td>0%</td>
</tr>
<tr>
<td>TV – cost savings</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>Outdoor – no cost savings</td>
<td>-0.9%</td>
<td>0%</td>
</tr>
<tr>
<td>Outdoor – cost savings</td>
<td>0%</td>
<td>22%</td>
</tr>
<tr>
<td>Online – no cost savings</td>
<td>-0.7%</td>
<td>0%</td>
</tr>
<tr>
<td>Online – cost savings</td>
<td>0%</td>
<td>3%</td>
</tr>
<tr>
<td>Cinema – no cost savings</td>
<td>-0.1%</td>
<td>0%</td>
</tr>
<tr>
<td>Cinema – cost savings</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Online – no cost savings</td>
<td>-0.01%</td>
<td>0%</td>
</tr>
<tr>
<td>Online – cost savings</td>
<td>0%</td>
<td>26%</td>
</tr>
<tr>
<td>Cinema – no cost savings</td>
<td>-0.9%</td>
<td>0%</td>
</tr>
<tr>
<td>Cinema – cost savings</td>
<td>0%</td>
<td>24%</td>
</tr>
<tr>
<td>Cinema – cost savings</td>
<td>-0.73%</td>
<td>0%</td>
</tr>
<tr>
<td>Cinema – cost savings</td>
<td>0%</td>
<td>3%</td>
</tr>
</tbody>
</table>

8.63 The following points should be noted:

8.63.1 for TV, the price increase would be profitable only if more than 24% and 52% of budget not switched (by agencies who switch some) increases the spend on radio at the 5% and 10% SSNIP respectively. Taking account of cost savings, it would be necessary that 22% and 50% of budget not switched (by agencies who switch some) increases the spend on radio respectively;

8.63.2 for online, the price increase would be profitable only if more than 26% and 30% of budget not switched (by agencies who switch some) increases the
spend on radio (or 24% and 29% respectively taking account of cost savings);

8.63.3 for press, the price increase would be profitable only if more than 37% and 23% of budget not switched (by agencies who switch some) increases the spend on radio (or 35% and 21% respectively taking account of cost savings); and

8.63.4 outdoor and cinema would require lower proportions of budget not switched (by agencies that switch some) to increase the spend on radio for the price increase to be profitable.

8.64 For the TV, press and online results to be overturned, it would be necessary that a relatively large proportion of the budget not switched (by agencies who switch some) increases the spend on radio. However, for the reasons set out in paragraphs 8.23 to 8.26, that proportion is likely to be small. Hence, on balance it appears that the pricing of indirect radio advertising is constrained by TV and online under this methodology.

**Overall profitability of price increase**

8.65 As discussed above, agencies that place budget “back into the pot” and those who switch to an “unknown substitute” have not been taken account of for the analysis of the identifiable competitive constraints faced by the hypothetical monopoly supplier of indirect radio advertising. However, these agencies will affect the overall profitability of a price increase. Therefore, we have also calculated the net profitability to the hypothetical monopolist taking account of all switching, including switching to unidentified media (i.e. “back into the pot” and unknown media). Results are shown in Table 17 below. This approach reflects the own price elasticity of demand faced by the hypothetical monopoly supplier of indirect radio advertising and captures all constraints in the market (identified and unidentified).

| Table 17: Overall profitability of price increase to hypothetical monopolist |
|-----------------|-----------------|-----------------|
|                 | 5% SSNIP        | 10% SSNIP       |
| % of budget not switched which increases radio spend (all agencies who switch some away) | % of budget not switched which increases radio spend (all agencies who switch some away) |
|                 | 0%    | 50%   | 100%  | 0%    | 50%   | 100%  |
| Net profit change (as a % of pre-SSNIP radio budget) | -13%  | -11%  | -9%   | -38%  | -35%  | -32%  |

8.66 The results shown in Table 17 above indicate that a price increase is unlikely to be profitable for the hypothetical monopolist.

**8.8. Additional market research results related to SSNIP test findings**

8.67 This section discusses other survey findings which provide further context for the SSNIP test analysis discussed above. The key issues discussed here are:

8.67.1 the extent to which media buying agencies may exert countervailing buyer power vis-à-vis radio group sales houses;

8.67.2 the survey evidence regarding media buying agencies’ past reactions to relative radio advertising price changes; and
Buyer power

8.68 It became apparent from the indirect radio advertising research that media buying agencies appear to have a degree of countervailing buyer power vis-à-vis radio group sales houses. Therefore, in the light of an attempt by radio group sales houses to increase prices, it appears that media buying agencies would at least attempt to resist and reverse the price increase. This is supported by a number of findings from the indirect radio advertising research.

8.69 First, research indicates that most agency respondents found the SSNIP test scenario difficult to engage with on account of it being an unrealistic characterisation of the sales house-agency relationship. According to the evidence, almost all agencies found it very hard to imagine a world in which all radio stations and radio group sales houses would be able to push through a price rise and sustain it for a non-transitory period of time. Notwithstanding the hypothetical nature of the SSNIP test scenario, the first reaction of most agencies to the SSNIP test question was to resist and attempt to reverse the price rise, despite the fact that the rules of the scenario stipulated that fighting or negotiating the price rise down was not an available option. Reasons given for such a reaction included an objection to an increase in the price of indirect radio advertising across all sales houses and the objectively unjustifiable nature of the price increase (i.e. the fact that the price increase was not reflecting an increase in the cost of supplying or quality of the product). In addition, it is the media buying agency’s function to negotiate prices with radio sales houses.

8.70 Second, research suggests that there is a widely held belief that media buying agencies currently enjoy the balance of bargaining power in negotiations with sales houses and that they have no need to lock into long term deals, which supports the trend towards ad-hoc negotiations.

8.71 Third, agencies perceived a general trend towards increased competition faced by radio, resulting from both the growth in the number of media channels and improvements in the offerings provided by competing media channels.

8.72 Further evidence of potential countervailing buyer power being exercised by agencies is provided below in relation to past agency reactions to attempted increases in radio advertising prices.

Past reactions to price increases

8.73 According to the research, the consensus view across agencies was that radio advertising prices have not shifted significantly over the last few years and hence there is limited evidence of actual historical reactions to past changes in the price of radio advertising.

8.74 However, stated reactions by agencies to (i) the recent alleged attempts by one radio group sales house to increase the price of indirect radio advertising and (ii) the

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77 Supporting document vol 2.
strategic shift undertaken by GCap to reduce the number of minutes of advertising airtime supplied provide an indication of possible responses to price rises. Nevertheless, it should be noted that as these attempted potential price rises were not pushed through by all radio stations across the entire market (but just by a single radio group sales house), agencies still would have had the option of switching to another radio station or cluster of stations. This is different from the SSNIP test scenario where price rises would be imposed by all radio group sales houses in the market.

8.75 Research indicates that most agencies said they had not accepted the price increases demanded by the radio group sales house and that they have largely succeeded in negotiating them back down. Similarly, most agencies also reported that they were finding it possible to buy around GCap in London using other radio stations or by switching away from radio to other media (although this was harder to do outside London). This evidence further suggests that media buying agencies have some degree of countervailing buyer power capable of constraining the pricing of indirect radio advertising.

Attitudes towards radio

Sensitivity towards increases in the cost of radio

8.76 Research suggests that agencies overall perceive radio to be cost effective compared to other media. When asked whether they agreed with this statement, agencies provided an average response of 3.9 (on a 1-5 scale where 1 was strongly disagree and 5 was agree strongly) with the highest spending agencies agreeing most strongly.

8.77 Agencies were asked to what extent they would spend more of their budget on other types of media if the cost of buying radio increased. The average response was 3.8 (on a 1-5 scale where 1 was strongly disagree and 5 was agree strongly). This suggests that agencies would expect to switch some spend away from radio in the face of an increase in the price of radio.

8.78 In contrast to the general view that some radio spend would be switched elsewhere in the event of an increase in the price of radio, some agencies also indicated that there will always be at least some clients whose needs require the use of radio and who will therefore be less price sensitive. For example, a newspaper requiring a short turn-around time to promote a weekend scoop (and who can’t advertise elsewhere in the press); retailers who have a new store opening; or an organisation that needs to communicate to drivers. When asked whether they agreed that radio is always included in the media mix regardless of its cost, the average response provided by agencies was 2 (on a 1-5 scale where 1 was strongly disagree and 5 was agree strongly), suggesting that in general radio does not appear to be perceived as indispensable.
Radio Advertising Market Research

Alternative media

8.79 Research suggests that although other media are generally perceived not to be able to exactly replicate the characteristics of radio, a variety of other media are seen as acceptable or practical substitutes. The alternative media most commonly mentioned by agencies were television, press, online and outdoor. Television, online and press are also the media that posed the strongest competitive constraint on the pricing of indirect radio advertising in the SSNIP test analysis described above.

8.80 When asked to what extent they agreed that radio is interchangeable with other media, the average response given by agencies was 3.7 (on a 1-5 scale where 1 was strongly disagree and 5 was strongly agree), suggesting that most agencies consider other media as alternatives to radio. Research suggests that particular alternative media could replace radio under certain circumstances, depending on the specific requirements and objectives of the client. For example, the digitisation of outdoor advertising sites increasingly allows advertisers to target specific dayparts, one of the key characteristics of the radio medium.

Conclusion on additional market research results related to SSNIP test findings

8.81 Evidence from the research supports the findings from the SSNIP test that the pricing of indirect radio advertising appears to be constrained. The strong resistance to the price rise suggests that agencies may exert a degree of countervailing buyer power with respect to radio group sales houses. Anecdotal historical evidence provides examples of where an attempted price increase by a radio group sales house may have been reversed. While most agencies would switch at least some budget away from radio to a range of alternative media in response to an increase in the price of indirect radio advertising, there typically are clients within an agency’s portfolio for whom radio would still constitute the most suitable medium for meeting their requirements and achieving their objectives.

8.82 The balance of Ofcom’s market research evidence would appear to indicate that indirect radio advertising is constrained by demand-side substitution to a range of alternative media and by the countervailing buyer power of agencies.

8.9. Conclusion on constraints on the price of indirect radio advertising

8.83 The SSNIP test analysis suggests that the pricing of indirect radio advertising is collectively constrained by a range of media taken together. The next best alternatives, ranked by the degree of the competitive constraint imposed, appear to be TV, online and possibly press advertising. This finding is robust to a range of sensitivity analyses. It should be noted that this result is different to the findings for the direct analysis where press was the major other media cited by switchers. This is likely to be correct intuitively in that national advertising campaigns on radio tend also to include advertising across many other media, e.g. TV, online and press. Therefore, depending on the nature of the campaign and the advertiser’s objectives, reducing spend on indirect radio and increasing spend on any one of these alternative media could be an option, particularly if it is simply a case of purchasing additional commercial impacts for an advert that has already been produced.

84 Supporting document vol 2.
85 Supporting document vol 2.
86 Supporting document vol 2.
8.84 The research also indicates that a significant proportion of budget taken away from indirect radio in response to a relative price rise could not be attributed to any individual media. This budget would simply be withdrawn from indirect radio by agencies and reallocated in due course following a reassessment of the most appropriate media strategy by the agency and/or the advertising client.

8.85 Ofcom also notes that none of the agencies surveyed said that they would increase their expenditure on indirect radio in response to the price rise and, in particular, the majority of agencies instinctively responded that they would resist any attempt to increase the price of indirect radio and were confident in their assessment that they would successfully negotiate the price back down to its initial level. This consensus position across the agencies appears to suggest that the agencies may hold a certain degree of countervailing buyer power with respect to radio group sales houses. This suggests that, even if no single alternative media constituted a sufficiently strong competitive constraint on the pricing of indirect radio advertising such that a narrow market was defined (i.e. indirect radio advertising only), the ability of radio group sales houses to raise prices above competitive levels appears to be limited. Where required in the context of a complaint, dispute, market review or provision of submissions to the OFT in relation to mergers, any definitive view on the precise scope of the relevant product and geographic market would need to be assessed by reference to the specific facts and circumstances of the particular case in question.
Annex 1

Inclusion of additional gain in revenue from partial switchers to other media

A1.1 As described in paragraph 7.56, this methodology ("partial switcher to any media methodology") takes into account, in addition to the gains listed in section 7.4, the gain on sales to partial switchers that switch a proportion of their initial radio advertising budget to an alternative media other than press (e.g. outdoor billboards or magazines). Such advertisers absorb the SSNIP and increase their spend over a proportion of their radio budget and therefore contribute to the net profitability of the SSNIP to the hypothetical monopolist, irrespective of the media they partially switch to.

A1.2 The "partial switcher to any media" methodology would overstate the net profitability accruing to the hypothetical monopolist and therefore provides, all else being equal, a form of upper bound on the profitability of the SSNIP and therefore on the degree of competitive constraint imposed by press advertising on direct radio advertising.

A1.3 Ofcom has calculated the net profitability as:

1.3.1 the gain in revenue on sales to advertisers who spend more on direct radio advertising;

plus

1.3.2 the gain in revenue on continued sales to partial switchers to any other media including, but not limited to, press (i.e. the x% increase in price is applied to the proportion of partial switcher budget that is not transferred to an alternative media by partial switchers to any media, including press);

plus

1.3.3 the gain in profit from cost savings (if any) achieved as a result of reduced advertising sales activity;

minus

1.3.4 the loss in revenue from partial and full switchers switching some or all of their direct radio advertising budget to press.

A1.4 The only difference with the "standard" methodology set out in section 7.4 is the inclusion in the second term of the gain in revenue on continued sales to partial switchers to media other than press. Table A1 below shows the net profitability of the SSNIP under the standard and "partial switcher to any media" methodologies.
### Table A1: Net profitability of a SSNIP to the hypothetical monopolist from switching to press under the “standard” and “partial switcher to any media” methodologies

<table>
<thead>
<tr>
<th>Net profitability of SSNIP test**</th>
<th>Methodology</th>
<th>Percentage of direct radio advertising budget transferred to press by partial switchers</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>SSNIP test**</td>
<td>5%</td>
</tr>
<tr>
<td></td>
<td>Standard</td>
<td>-6%</td>
</tr>
<tr>
<td></td>
<td>Partial switcher to any media</td>
<td>-5%</td>
</tr>
<tr>
<td></td>
<td></td>
<td>10%</td>
</tr>
<tr>
<td></td>
<td>Standard</td>
<td>-9%</td>
</tr>
<tr>
<td></td>
<td>Partial switcher to any media</td>
<td>-8%</td>
</tr>
</tbody>
</table>

*expressed as a % of pre-SSNIP total direct radio advertising revenue

**based on a sample size of 182 direct radio advertisers

A1.5 The net profitability of a SSNIP to the hypothetical monopoly supplier of direct radio advertising is negative, regardless of the proportion of direct radio advertising budget transferred to any other media by partial switchers.

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87 For consistency with the standard methodology, the profitability under the partial switcher to any media methodology is expressed as a proportion of the aggregate pre-SSNIP direct radio advertising budgets of the full sample of direct radio advertisers.
Annex 2

Different values for the average budgets

A2.1 As explained in paragraph 7.60, due to the fact that we are using sample rather than population data, there is a sample error margin associated with the total and average direct radio advertising expenditure of all possible sub-categories of respondents. This sensitivity therefore tests the robustness of the survey value based results to different values for the average direct radio advertising budgets of the different categories of respondents defined and listed in section 7.2.

A2.2 Ofcom has obtained the survey sample error margins by calculating a lower and upper bound on the average radio advertising budgets of the different categories of respondents (i.e. continuers spending more on radio, continuers spending the same on radio, partial switchers and full switchers). The lower and upper bound of the error margin on each budget correspond to the lower and upper bounds of the 95% confidence interval for the relevant sample of advertiser budgets. For example, the lower and upper bound of the error margin on the average budget of "continuers spending more" correspond to the lower and upper bound of the 95% confidence interval for the average budget spent by the 78 "continuers spending more".

A2.3 On the basis of the calculated sample error margins, Ofcom has constructed some extreme case scenarios:

2.3.1 more profitable case: the average radio advertising budget of continuers is assumed to be high (at the upper bound of the error margin on the average direct radio advertising budget for continuers spending more on radio) and the average radio advertising budget of switchers to press is assumed to be low (at the lower bound of the error margin on the average direct radio advertising budget for partial switchers to press). Under this scenario, the competitive constraint imposed by press advertising is at the weakest possible, but still statistically significant, level;

2.3.2 central survey case: this scenario corresponds to the use of the radio advertising budgets stated in the survey; and

2.3.3 less profitable case: the average radio advertising budget of continuers is assumed to be low (at the lower bound of the error margin on the average direct radio advertising budget for continuers spending more on radio) and the average radio advertising budget of switchers to press is assumed to be high (at the upper bound of the error margin on the average direct radio advertising budget for partial switchers to press). Under this scenario, the competitive constraint imposed by press advertising is at the strongest possible, but still statistically significant, level.

A2.4 Table A2 below shows the net profitability to the hypothetical monopolist in each of these three scenarios:
Table A2: Net profitability of a SSNIP to the hypothetical monopolist from switching to press under the "more profitable", survey and “less profitable” cases

| Percentage of direct radio advertising budget transferred to press by partial switchers | More profitable | Central survey | Less profitable | More profitable | Central survey | Less profitable | More profitable | Central survey | Less profitable |
|---|---|---|---|---|---|---|---|---|---|---|
| SSNIP test** | 0% | 50% | 100% |
| 5% | -9% | -6% | -11% | -9% | -6% | -13% | -9% | -7% | -14% |
| 10% | -3% | -9% | -21% | -3% | -12% | -25% | -4% | -14% | -30% |

* expressed as a % of pre-SSNIP total direct radio advertising revenue and rounded up to the nearest integer percentage point

**based on a sample size of 182 direct radio advertisers

A2.5 The net profitability of a SSNIP to the hypothetical monopoly supplier of direct radio advertising is negative even under the more profitable case and regardless of the proportion of direct radio advertising budget transferred to press by partial switchers.

A2.6 It is important to underline the fact that the “more profitable” and “less profitable” cases are extreme cases relying on extreme assumptions. They would therefore be very unlikely to materialise. The more profitable case does however provide a statistically significant upper bound, all else being equal, on the net profitability of the SSNIP to the hypothetical monopolist.

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88 An indicative analysis of the sample profile in terms of identifiable characteristics (e.g. types of advertising purchased, business location, target audience, turnover, etc) shows that those direct radio advertisers that switched to press in response to the 10% SSNIP were similar in profile to the entire sample of direct advertisers. Although this evidence is only indicative, it suggests that the more profitable case is less likely to occur in practice.
Annex 3

Different number of partial and full switchers

A3.1 As explained in paragraph 7.64, this sensitivity analysis tests the robustness of the base case SSNIP test net profitability results to changes in the switching rate for partial and full switchers (i.e. the number of partial and full switchers respectively as a proportion of the total number of respondents in the survey sample).

A3.2 It is assumed that any reduction in the switching rate of partial or full switchers (implying a corresponding survey overstatement of switching rates) is balanced out by a corresponding increase in the proportion of radio advertisers spending more on radio (i.e. “continuers” spending more on radio advertising). This means that, for example, a three percentage point decrease in the partial switching rate to press is offset by a compensating three percentage point increase in the “continuers spending more” rate. This assumption is conservative because it is possible that a reduction in the switching rate could be accompanied by an increase in the proportion of radio advertisers spending the same amount on radio advertising by purchasing fewer or shorter slots. As explained in paragraph 7.13, under the zero marginal cost assumption, those advertisers would have no impact on the profitability of the hypothetical monopolist.

A3.3 The partial switcher rate is varied first holding the full switcher rate constant (i.e. equal to the survey full switcher rate), and subsequently the full switcher rate is varied holding the partial switcher rate constant (i.e. equal to the survey partial switcher rate).

Varying the partial switcher rate

A3.4 Chart A1 below shows the net profitability of a 5% SSNIP – on the vertical axis - under a range of partial switcher rates – on the horizontal axis - (holding the full switcher rate constant) under the more profitable scenario. The profitability under the central case and the less profitable case is always negative for any partial switcher rate assumed, and is therefore not represented in Chart A1. The vertical dotted line represents the upper bound of the error margin on the survey partial switcher rate, and the vertical continuous line represents the survey partial switcher rate.

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89 The lower bound of the error margin is not shown on the chart as it is zero.
Chart A1: Net profitability of a 5% SSNIP to the hypothetical monopolist from switching to press under a range of partial switcher rates

* expressed as a % of pre-SSNIP total direct radio advertising revenue
**based on a sample size of 182 direct radio advertisers

A3.5 Chart A1 above shows that varying the partial switcher rate (holding the full switcher survey rate constant) within the limits of the error margin only leads to (negligible) profitability in the more profitable case if:

3.5.1 the partial switcher rate is reduced to less than 2% compared to a survey partial switcher rate of over 3%; and

3.5.2 the price of direct radio advertising increases by 5% (under a 10% price increase the SSNIP is always unprofitable).

A3.6 As explained in paragraph 7.69 above, the more profitable case scenario relies on extreme assumptions and it would therefore be very unlikely to materialise.

Varying the full switcher rate

A3.7 Chart A2 below shows the net profitability of a 5% SSNIP – on the vertical axis - under a range of full switcher rates – on the horizontal axis - (holding the partial switcher rate constant), and under the central, more profitable and less profitable cases. The vertical dotted lines represent the upper and lower bounds of the error margins on the survey full switcher rate, and the vertical continuous line represents the survey full switcher rate.
Chart A2: Net profitability of a 5% SSNIP to the hypothetical monopolist from switching to press under a range of full switcher rates

A3.8 Chart A2 shows that under the 5% SSNIP, varying the full switcher rate (holding the partial switcher survey rate constant) within the limits of the error margin only leads to profitability:

3.8.1 under the more profitable case scenario (which is an extreme assumption); and

3.8.2 if the survey full switcher rate overstates actual switching behaviour (i.e. the actual full switcher rate would be lower than the full switcher rate implied by the survey responses).

A3.9 Under the central and less profitable cases, the 5% price increase is always unprofitable within the limits of the error margin.

A3.10 Chart A3 below shows the net profitability of a 10% SSNIP – on the vertical axis - under a range of full switcher rates – on the horizontal axis - (holding the partial switcher rate constant), under the more profitable case only. The central and less profitable cases are always unprofitable within the boundaries of the error margin under a 10% SSNIP, and are therefore not shown in the chart. The vertical dotted line represents the lower bound of the error margin on the survey full switcher rate, and the vertical continuous line represents the survey full switcher rate.
A3.11 The 10% SSNIP is only profitable under the more profitable case when the full switcher rate is reduced to approximately 10% or less (depending on the assumption regarding the proportion of partial switcher budget transferred to press) compared to a survey full switcher rate of approximately 15%.
Annex 4

Magnitude of price increase imposed

A4.1 As recommended by the OFT in its guidance on the definition of a relevant market, it is conventional to impose a 5-10% non-transitory increase in price when applying the SSNIP test. The survey asks how direct radio advertisers would respond to a 5% and to a 10% price increase. As explained in paragraph 7.71, Ofcom has conducted a sensitivity analysis in order to assess how the net profitability of a SSNIP to the hypothetical monopolist would vary if a price increase lying with the 5-10% range but other than 5% or 10% were to be applied to the price of direct radio advertising.

A4.2 Ofcom only undertook this sensitivity under the “partial switcher to any media” methodology because under the “standard methodology” the SSNIP test is unprofitable with both a 5% and a 10% price increase. Therefore assuming a reasonably behaved demand function a price rise between 5% and 10% should also be unprofitable.

A4.3 The results of this sensitivity under the “partial switcher to any media” methodology and the more profitable case are presented in Chart A4 below (for different proportions of budget switched by partial switchers). The profitability under the central case and the less profitable case is always negative for any price increase between 5% and 10%, and is therefore not represented in Chart A4 below.

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Chart A4: Net profitability of a range of SSNIPs to the hypothetical monopolist from switching to press under the “partial switcher to any media” methodology

Net profitability of SSNIP to hypothetical monopolist under more profitable case**

*expressed as a % of pre-SSNIP total direct radio advertising revenue

**based on a sample size of 182 direct radio advertisers

A4.4 Chart A4 above shows that a positive net profitability under the “partial switcher to any media” methodology only arises:

4.4.1 where the SSNIP price increase is less than 7% and partial switchers are assumed not to switch any budget away from radio (i.e. top line in chart A4 – partial switchers transfer 0% of their direct radio advertising budget); and

4.4.2 where the SSNIP price increase is less than 6% and partial switchers are assumed to switch 50% of their radio advertising budget away from radio (i.e. second line in chart A4 – partial switchers transfer 50% of their direct radio advertising budget).

4.4.3

A4.5 It should be noted in addition that, as discussed in paragraph 7.69 above, the more profitable case is an extreme case that is unlikely to materialise.
Annex 5

Inclusion of cost savings from reduced royalty and licence fee payments

A5.1 As described in paragraph 7.76, radio stations incur two sets of costs that are levied as a fixed proportion of the net broadcasting revenue ('NBR') they generate (where net broadcasting revenue is composed of net advertising revenue and net sponsorship revenue):

5.1.1 the annual Ofcom licence fee; and

5.1.2 a set of royalty payment fees.

A5.2 The annual Ofcom licence fee is charged to licensed radio station operators and is calculated as a percentage of qualifying revenue.\(^91\) There are three different rate bands. For conservativeness and to reflect the fact that the licence fee is being applied to a hypothetical monopolist comprising an aggregation of individual radio stations, it is assumed that the highest rate of 0.675% (corresponding to an NBR of £5 million or above) is payable.

A5.3 Radio stations are charged a set of royalty fees by the following collecting societies:

5.3.1 the PRS (Performing Rights Society) is a body that collects royalties in respect of music played by radio stations for artists and composers. It is assumed that the hypothetical monopolist is charged the highest rate of 5.25% of NBR;

5.3.2 the PPL (Phonographic Performance Ltd) is a body that collects royalties in respect of music played by radio stations on behalf of record companies. It is assumed that the hypothetical monopolist is charged the highest rate of 5% of NBR; and

5.3.3 the MCPS (Mechanical Copyright Protection Society) is a body that collects royalties in respect of music played by radio stations, specifically jingles and music used in adverts. It is assumed that the hypothetical monopolist is charged the highest rate of 0.63% of NBR.

A5.4 Overall therefore, it is assumed that the royalty fees taken together account for 10.88% of the hypothetical monopolist’s total advertising revenue.

A5.5 Table A3 below summarises the assumptions made regarding licence and royalty fees:

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\(^91\) For more details see table 12 on page 13 of *Ofcom’s Tariff Table 2005/06* issued on the 31st March 2005 (http://www.ofcom.org.uk/consult/condocs/socp/tariff/tariff_2005_06.pdf).
Table A3: Ofcom licence and royalty fee assumptions

<table>
<thead>
<tr>
<th></th>
<th>Annual Ofcom licence fee</th>
<th>Royalty fees, of which</th>
<th>*Performing Rights Society</th>
<th>*Phonographic Performance Ltd</th>
<th>*Mechanical Copyright Protection Society</th>
<th>TOTAL LICENCE AND ROYALTY FEES</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.675% of NBR</td>
<td>10.88% of NBR</td>
<td>5.25% of NBR</td>
<td>5% of NBR</td>
<td>0.63% of NBR</td>
<td>11.555% of NBR</td>
</tr>
</tbody>
</table>

NBR is net broadcasting revenue

A5.6 This sensitivity analysis assumes that the total cost to the hypothetical monopolist associated with licence and royalty fees amounts to 11.555% of total advertising revenue. As this charge is directly proportional to the total level of advertising revenue generated by the hypothetical monopolist, any loss in net revenue following the SSNIP will result in a cost saving in the shape of reduced licence and royalty fees and any increase in revenues following the SSNIP will result in additional costs being payable.

A5.7 This analysis shows that the cost savings associated with reduced licence and royalty payments are relatively low. They account for *circa* only 12% of the total cost savings required for the hypothetical monopolist to breakeven. Table A4 shows that the reduction in the (negative) profitability of the SSNIP when these cost savings are included is small.

Table A4: Net profitability of a SSNIP to the hypothetical monopolist from switching to press, inclusive of cost savings associated with reduced licence and royalty fees

<table>
<thead>
<tr>
<th>Net profitability of SSNIP test*</th>
<th>SSNIP test**</th>
<th>Percentage of direct radio advertising budget transferred to press by partial switchers</th>
<th>0%</th>
<th>50%</th>
<th>100%</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>More profitable</td>
<td>Central survey</td>
<td>Less profitable</td>
<td>More profitable</td>
</tr>
<tr>
<td>Excluding cost savings on fees</td>
<td>5%</td>
<td>-0%</td>
<td>-6%</td>
<td>-11%</td>
<td>-0%</td>
</tr>
<tr>
<td>Including cost savings on fees</td>
<td></td>
<td>-0%</td>
<td>-5%</td>
<td>-10%</td>
<td>-0%</td>
</tr>
<tr>
<td>Excluding cost savings on fees</td>
<td>10%</td>
<td>-3%</td>
<td>-9%</td>
<td>-21%</td>
<td>-3%</td>
</tr>
<tr>
<td>Including cost savings on fees</td>
<td></td>
<td>-3%</td>
<td>-8%</td>
<td>-18%</td>
<td>-3%</td>
</tr>
</tbody>
</table>

*expressed as a % of pre-SSNIP total direct radio advertising revenue and rounded up to the nearest integer percentage point

**based on a sample size of 182 direct radio advertisers
Annex 6

Inclusion of cost savings from reduced advertising sales activity

A6.1 As discussed in paragraph 7.87, the methodology Ofcom has adopted for testing the robustness of the base case SSNIP test results to the inclusion of cost savings associated with reduced advertising sales staff costs consists of:

6.1.1 calculating the Average Avoidable Cost (‘AAC’) per 30 second slot required for the hypothetical monopoly supplier of direct radio advertising to breakeven (i.e. the AAC per 30 second slot required to overturn the base case SSNIP test results or ‘critical AAC’);

6.1.2 estimating the actual AAC per 30 second slot; and

6.1.3 comparing the critical AAC with the estimated actual AAC – if the estimated actual AAC falls short of the critical AAC, then it can be concluded that the cost savings achieved are not sufficiently large to overturn the base case SSNIP test results.

A6.2 Each of the three stages of the proposed methodology is discussed in detail below.

Calculation of critical average avoidable cost

A6.3 The base case SSNIP test model allows the calculation of the cost savings required for the hypothetical monopoly supplier of direct radio advertising to breakeven (this value of cost savings corresponds to the level of losses incurred following the application of the SSNIP but before the inclusion of any cost savings achieved as a direct result of a reduction in the volume of advertising sales). If the total avoidable cost savings actually achieved exceed this critical level of cost savings then the base case SSNIP test results are overthrown. It is then possible to calculate the critical AAC of supplying an advertiser. This is the ratio of the critical level of total avoidable cost savings to the number of partial and full switchers.92

A6.4 The formula used to calculate the critical AAC of supplying an advertiser is set out below:

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92 The denominator of this ratio is a weighted average of full and partial switchers. Full switchers are assigned a weighting of one while partial switchers are assigned a weighted between 0 and 1 (corresponding to the assumption on the proportion of direct radio advertising budget transferred to press by partial switchers) to reflect the fact that partial switchers are likely to generate fewer cost savings than full switchers.
A6.5 Adopting a measure for the volume of advertising airtime supplied (i.e. a 30 second slot) allows the calculation of the AAC per unit of advertising airtime (instead of the AAC per advertiser) required for the hypothetical monopolist to breakeven (i.e. the critical AAC per 30 second slot). According to the Radio Advertising Bureau (‘RAB’), the average radio advertising campaign purchased directly is composed of around 20 ‘30 second slots’ per week broadcast over a period of around one month.\(^{93}\) Such a campaign would therefore consist of around 90 ‘30 second slots’ on average. Dividing the critical AAC per advertiser derived above by the average number of 30 second slots acquired for a typical direct radio advertising campaign yields the critical AAC per 30 second slot.

A6.6 The formula used to calculate the critical AAC of supplying a 30 second slot is set out below:

\[
\text{AAC}_{\text{CRI}} = \frac{\text{AAC}_{\text{CRI}}}{(\text{ASW} \times 4.5)}
\]

where:
- \(\text{AAC}_{\text{CRI}}\) is the critical average avoidable cost of supplying a 30 second slot;
- \(\text{AAC}_{\text{CRI}}\) is the critical average avoidable cost of supplying an advertiser;
- \(\text{ASW}\) is the number of slots per week purchased for an average radio advertising campaign; and
- 4.5 is the average number of weeks per month.

A6.7 Once the critical level of AAC savings (in pounds per 30 second slot) required to reverse the base case SSNIP test results has been calculated, the next step is to compare this critical level to an estimated benchmark measure of the actual AAC of supplying a 30 second slot. If the critical level significantly exceeds the estimated actual level (i.e. if the estimated actual AAC falls short of the critical level), then it can be concluded that the base case SSNIP test results are robust to the inclusion of cost savings from reduced advertising sales activity.

**Estimation of actual average avoidable cost**

A6.8 In order to estimate the actual level of AAC per unit of advertising airtime, it is necessary to understand which categories of costs incurred by local radio stations are directly related to advertising sales activity and would therefore be avoided if the degree of such activity were to be reduced. Ofcom has examined a sample of commercial radio station licence applications to reach a preliminary assessment of the cost categories or sub-categories that are likely to be avoidable.

\(^{93}\) RAB emails dated 23rd and 24th January 2006.
A6.9  As discussed above, the Ofcom licence fee and royalty payments are directly related to a radio station’s net broadcasting revenue (including direct radio advertising revenue) and would therefore decline in proportion to any decrease in direct radio advertising revenue. The only category of costs that can reasonably be directly attributed to direct radio advertising sales activity is the sub-category of staff costs related to advertising sales staff costs. Other cost categories such as engineering, premises or marketing costs are more appropriately considered as largely fixed or sunk costs and not avoidable costs.

A6.10  Based on Ofcom data from a sample of 97 commercial radio station licence applications submitted since January 2004 (where each of the 97 commercial radio station licence applicants submitted annual revenue and cost forecasts and each projected positive direct radio advertising revenue), the annual projected advertising sales staff costs was on average £134,000 per annum per radio station94.

A6.11  In order to estimate the AAC of supplying one unit of direct radio advertising airtime (i.e. a 30 second slot), the next step is to divide the estimated actual total avoidable costs (i.e. the estimated annual advertising sales staff costs per radio station - £134,000 per annum per radio station) by the total number of 30 second slots supplied on average by a provider of direct radio advertising in a given year. According to the RAB, radio stations supply on average 10 minutes per hour of advertising airtime with a lower bound of around 5 minutes on average per hour and an upper bound of around 13 minutes on average per hour95. Therefore, radio stations supply on average 20 ‘30 second slots’ per hour. Aggregating this to a full year gives an average of 175,200 ‘30 second slots’ supplied by a radio station per year.96  An estimate for the AAC of supplying a 30 second slot is therefore 76 pence (i.e. £134,000 divided by 175,200).

A6.12  The formula used to calculate the estimated actual AAC of supplying a 30 second slot:

\[
AAC = \frac{TAC}{(AMH \times 2 \times 24 \times 365)}
\]

where:
- AAC is the estimated actual average avoidable cost of supplying a 30 second slot;
- TAC is the estimated actual total average avoidable costs per annum (i.e. the estimated annual advertising sales staff costs per radio station - £134,000 per annum per radio station); and
- AMH is the average number of minutes per hour of advertising airtime supplied by radio stations.

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94 Although this data comes from “new licence” applications, the large majority of new licence applications are made by existing radio operators, thus with experience of radio.
95 RAB emails dated 23rd and 24th January 2006.
96 Assuming 5 minutes of advertising airtime on average per hour gives 87,600 ‘30 second slots’ per year while assuming 13 minutes of advertising airtime on average per hour gives ‘227,760 30 second slots’ per year.
Comparison of critical average avoidable cost and estimated actual average avoidable cost of supplying a 30 second slot

A6.13 The estimated actual AAC is then compared with the critical AAC. If the estimated actual AAC is above 100% of the critical AAC, the SSNIP then becomes profitable when cost savings from reduced advertising airtime sales activity are included.

A6.14 Chart A5 below shows the estimated actual AAC as a proportion of the critical AAC of supplying a 30 second slot under the more profitable and central survey cases under different assumptions on the number of advertising minutes supplied and after the application of the 5% SSNIP. The horizontal line at 100% ‘estimated actual AAC as a % of critical AAC level’ shows the point above which the SSNIP becomes profitable. The results under the less profitable case are not shown in the chart because they are below the central survey case and therefore substantially below the 100% benchmark at which the SSNIP becomes profitable.

Chart A5: Estimated actual AAC of supplying a 30 second slot as a proportion of critical AAC of supplying a 30 second slot for the 5% SSNIP test

A6.15 Chart A5 shows that the 5% SSNIP is unprofitable after the inclusion of cost savings under the central survey case and irrespective of the proportion of direct radio advertising budget transferred to press by partial switchers. The estimated actual AAC is substantially lower than the critical level of AAC required for breakeven (the former accounting for less than 5% of the latter).

A6.16 Under the 5% SSNIP, the inclusion of cost savings makes the price increase profitable (i.e. the estimated actual AAC exceeds the level of AAC required to reverse the base case SSNIP test results) only if:
6.16.1 the more profitable case is assumed (i.e. the weakest possible constraint imposed by press advertising and an extreme scenario that is unlikely to materialise);

6.16.2 partial switchers transfer over 20% of their direct radio advertising budget to press; and

6.16.3 it is assumed that the hypothetical monopolist radio station supplies on average 10 minutes of radio advertising airtime per hour.

A6.17 The 10% SSNIP is always unprofitable even after the inclusion of cost savings from reduced advertising airtime sales activity. Even under the more extreme assumptions (i.e. the more profitable case, partial switchers transferring 100% of their direct radio advertising budget to press (thereby maximising cost savings) and an average supply of 5 minutes of advertising airtime per hour), the estimated actual AAC does not account for more than 14% of the AAC required under the 10% SSNIP for the base case SSNIP test results to be reversed.
Annex 7

Profitability analysis

A7.1 This annex describes Ofcom’s high level profitability analysis. This analysis was undertaken with the data that is currently readily available.

A7.2 Ofcom has calculated return on sales (ROS) as a measure of profitability. There are alternative measures which calculate profitability with respect to assets. However, as radio is not a very capital intensive business, but rather a sales driven business, ROS appeared more appropriate than return on capital employed (ROCE) for this high level profitability analysis.

A7.3 As data on some individual stations that belong to larger radio groups is not available, Ofcom has used a combination of aggregate radio group data and individual radio station data. For those radio groups that undertake radio as well as other activities (e.g. Emap), the operating profit and turnover figures used are the split relating to radio activities only. Ofcom has sought to gather data for the financial period April 2004 – March 2005 for as many radio stations/radio groups as possible. For those radio stations/radio groups for which data for this period was not available, Ofcom has collected the data for the closest available year end to that financial period.

A7.4 Data on the profitability of individual lines of business (e.g. direct radio advertising only) is not currently available. Hence for this high level profitability analysis Ofcom has used aggregate profit data (i.e. aggregate profit earned as a result of all radio activities, including direct as well as indirect advertising, sponsorship, promotions, advertisement production, etc). Ofcom’s analysis is therefore based on the assumption that direct radio advertising is not more profitable than other radio activities (e.g. indirect radio advertising, sponsorship, etc).

A7.5 Ofcom has calculated an average ROS for the industry. As different radio stations/radio groups have different size (i.e. some represent a larger proportion of the direct radio advertising market than others), Ofcom has weighted each radio station/radio group profit measure by their share of total direct (or local) radio advertising turnover in its sample. If for the same number of impacts/slots one radio station charges higher prices for direct advertising than another then by weighting by its share of total direct radio advertising turnover its profit measure is given a higher weight.

A7.6 Ofcom has first calculated the industry profitability under a base case, and subsequently performed a number of sensitivities to test the robustness of the base case to alternative assumptions.

97 For 24 radio stations neither Group nor individual radio station data was available, so those stations are excluded from the analysis. We have also excluded other stations where data was incomplete.
98 The dataset contains operating profit and turnover data with financial year ends ranging from December 2002 to September 2005.
99 Calculating the profitability of individual lines of business (e.g. local radio advertising) typically requires complex allocations of those costs that are common across the different lines of business, as well as identifying what costs can be directly attributed to the different radio activities.
Base case profitability

A7.7 This base case calculates a weighted average industry ROS based on operating profit and turnover. The operating profit figure for radio groups excludes goodwill amortisation. Ofcom has not attempted to exclude goodwill amortisation for the individual radio stations’ financial data. Most individual radio stations are unlikely to have goodwill amortisation; if any individual stations have any goodwill amortisation it is likely to be very small.

A7.8 The weights used to calculate an average industry ROS are each company’s share of direct radio advertising revenue in the sample for the period April 04 - March 05. Although the financial data for each radio group/radio station does not relate to exactly the same financial period, it appeared appropriate to use a single year for calculating each radio group/radio station’s share of direct radio advertising revenue, to avoid underestimating/overestimating different radio group/radio station’s share as a result of annual variations in direct radio advertising revenue.

A7.9 The base case weighted average industry ROS is 12%.

Sensitivities

A7.10 Ofcom has also analysed a number of variations from the base case. These sensitivities are described below.

Sensitivity 1 - Weights relating to same financial year as profit and turnover data

A7.11 This sensitivity adds each company’s direct radio advertising revenue for the financial year for which its profit and turnover data is available (which is different for different radio stations/radio groups). It then calculates each company’s share of the aggregate direct radio advertising revenue, which is used as a weight. The difference between the weighted average industry ROS thus obtained and the base case is immaterial.

Sensitivity 2 – profit including group goodwill amortisation

A7.12 This sensitivity uses the operating profit figure for radio groups including goodwill amortisation (as opposed to the base case where goodwill amortisation is excluded from the radio group profit). The operating profit figure for individual radio stations is the same as in the base case.

A7.13 The weighted average industry ROS in this sensitivity analysis is 6%.

Sensitivity 3 – aggregating GWR and Classic Gold Digital Ltd. (CGDL) local revenue

A7.14 GWR and CGDL have an agreement whereby GWR purchases the airtime on CGDL’s AM licences acquired from GWR in exchange for a monthly fee. In the data available, GWR’s gross broadcasting revenue (‘GBR’) is lower than the turnover in its accounts, whilst CGDL’s GBR is higher. Therefore, this sensitivity aggregates the turnover and profit of GWR and CGDL.

A7.15 The weighted average industry ROS in this sensitivity analysis is 12.5%
Sensitivity 4 – excluding stations/groups with older financial data

A7.16 As explained in paragraph Error! Reference source not found., although Ofcom has sought to gather data for the financial period April 2004 – March 2005 for as many radio stations/radio groups as possible, the dataset contained stations whose financial data related to financial year ends prior to or after that period. Therefore this sensitivity excludes those radio groups/radio stations whose financial data related to financial year ends prior to 1 March 2004 or after 1 March 2005. In practice, this means that the financial data of the radio stations/groups included in this sensitivity relates to the period March 2003 to March 2005.

A7.17 The weighted average industry ROS in this sensitivity analysis is 11.9%.

Sensitivity 5 - a different dataset

A7.18 A different dataset was also available, which included only individual radio station data. This dataset excludes about 10% of local revenue which would be included in the previous sample, and relies on profit and turnover data from radio stations’ management accounts rather than statutory accounts. The total turnover in this sample is £432m (excludes national only radio stations), compared to £629m in the base case sample.

A7.19 Using this alternative dataset, the weighted average industry ROS is 15.4%.

Benchmark profitability

A7.20 In order to determine whether the estimated average industry profitability appears high, such that prices might be expected to be above competitive levels, Ofcom has compared the weighted average industry ROS for radio with the ROS of comparable companies.

A7.21 Ofcom’s dataset contains operating profit data for the FTSE 100 companies. Of those FTSE 100 companies Ofcom has selected two samples: the first contains those FTSE 100 companies with similar risk profile (measured in terms of company equity beta) to a sample of radio stations. The second contains those FTSE 100 companies with a similar capital intensity (measured as capital expenditure divided by the sum of operating and capital expenditure) to media companies.

FTSE 100 companies with similar risk profile

A7.22 Ofcom’s data from a small sample of radio stations suggests that equity betas range broadly from 1.15 to 1.4. Ofcom has therefore selected those FTSE 100 companies with equity betas ranging from 1 to 1.5. Chart A6 below shows the cumulative distribution of the selected FTSE 100 companies according to their ROS.
A7.23 Chart A6 shows that 50% of FTSE 100 companies with equity beta between 1 and 1.5 have a ROS equal to or below 12%, whilst the other half have a higher ROS.

FTSE 100 companies with similar capital intensity

A7.24 As highlighted in paragraph Error! Reference source not found., radio is not a very capital intensive business. The media companies included in Ofcom’s FTSE 100 sample had a capital intensity ranging between 0% and 6%. Ofcom has therefore selected those FTSE 100 companies in the total sample with capital intensity ranging from 0% to 10%. Chart A7 below shows the cumulative distribution of selected FTSE 100 companies according to their ROS.

Chart A7: ROS cumulative distribution – FTSE 100 companies with capital intensity between 0% and 10%
A7.25 Chart A7 shows that 50% of FTSE 100 companies with capital intensity ranging between 0% and 10% have a ROS equal to or below 12%-13%, whilst the other half have a higher ROS.

**Review of profitability analyses in previous cases**

A7.26 Ofcom has also undertaken a review of profitability analyses in competition law cases which appeared most relevant to this case:

7.26.1 Ofcom's investigation into BT's retail prices; and

7.26.2 the OFT's investigation into classified directory advertising services.

**Ofcom's investigation into BT's retail prices**

A7.27 In assessing an appropriate ROS threshold in the context of a margin squeeze investigation into BT's retail prices, Ofcom considered a variety of comparator companies that were expected to provide a reasonable proxy for the normal profit that BT's narrowband metered internet access business may be expected to earn. Criteria identified by Ofcom included having a similar function, proportion of bought-in services, capital structure and barriers to entry as BT's narrowband metered business. Ofcom comparator companies' profitability (measured as earnings before interest and tax) varied between about less than 2% and 16%. Ofcom's comparator companies' profitability, as reported in Annex B of the non-confidential version of the decision, are shown in Chart A8 below.

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100 Ofcom Decision regarding Competition Act 1998 investigation into BT 0845 & 0870 retail price change – Suspected Internet Service Provider margin squeeze (August 2004).
Chart A8: Return on turnover for some comparator companies, most recent financial year available

Table B.1 Return on Turnover for some comparator companies, most recent financial year available

<table>
<thead>
<tr>
<th>Company</th>
<th>EBIT Margin</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPW</td>
<td>10%</td>
</tr>
<tr>
<td>BT Group</td>
<td>15%</td>
</tr>
<tr>
<td>BT Retail</td>
<td>10%</td>
</tr>
<tr>
<td>Orange</td>
<td>10%</td>
</tr>
<tr>
<td>Virgin Mobile</td>
<td>10%</td>
</tr>
<tr>
<td>O2</td>
<td>10%</td>
</tr>
<tr>
<td>EE</td>
<td>10%</td>
</tr>
<tr>
<td>BT</td>
<td>10%</td>
</tr>
<tr>
<td>Talkmobile</td>
<td>10%</td>
</tr>
<tr>
<td>Oi</td>
<td>10%</td>
</tr>
<tr>
<td>John Lewis Apparel</td>
<td>10%</td>
</tr>
<tr>
<td>Cadbury Rowlands</td>
<td>10%</td>
</tr>
<tr>
<td>Unilever</td>
<td>10%</td>
</tr>
<tr>
<td>Asda</td>
<td>10%</td>
</tr>
<tr>
<td>Food Wholesale</td>
<td>10%</td>
</tr>
<tr>
<td>Marks &amp; Spencer</td>
<td>10%</td>
</tr>
<tr>
<td>94</td>
<td>12%</td>
</tr>
<tr>
<td>New Line</td>
<td>12%</td>
</tr>
</tbody>
</table>

Source: Ofcom, Annex B of the non-confidential version of the decision

A7.28 Ofcom identified two UK communications service providers with high proportions of resale activity, BT Retail and Virgin Mobile, with earnings before interest and tax (EBIT) margins of 10.6% and 14.6% respectively for the most recent financial year.

A7.29 Ofcom also considered other areas of economic activity that involve retail services, including major high street retailers and supermarkets. Ofcom considered such companies within the FTSE 100 and within the 100 largest private companies in the UK. Ofcom noted that retailers and supermarkets have very different capital structures to narrowband metered internet access, but their return on turnover ranged from 1.5% to 16.8% with an average of 6.1% (weighted by turnover) or 7% (unweighted).

A7.30 Ofcom’s decision also notes that the Monopolies and Mergers Commission (‘MMC’) concluded that a return on turnover of 1.5% would be appropriate for BT’s calls-to-mobiles activity\textsuperscript{101}. In contrast, in its report on Scottish Hydro-Electric plc a return of 0.5% was adopted\textsuperscript{102}. Ofcom reports that, according to the MMC, the potential for competition from new operators and the speed with which it could impact on BT are factors which differentiate BT’s calls to mobiles activity from the circumstances of Scottish Hydro-Electric.

\textsuperscript{101} This relates to the MMC report on BT’s charges for calls from its subscribers to phones connected to the networks of Cellnet and Vodafone, 1999.

\textsuperscript{102} This relates to the MMC report on Scottish-Hydro Electric plc, 1995.
**Classified Directory Advertising Services**

A7.31 In its review of Yell’s undertakings (classified directory advertising services)\(^{103}\), the OFT reports results of a benchmarking exercise which show that the mean ROS for three groups of companies used for comparison ranges between 3-14% over a three year period. Average ROS over the three years (excluding those companies earning negative results) was:

7.31.1 12% for all printing and publishing companies;

7.31.2 14% for communications companies; and

7.31.3 3% for the 200 least capital intensive companies.

A7.32 In its recent report for referral of the market for classified directory advertising to the Competition Commission\(^{104}\), the OFT compared Yell and Thomson’s profitability (measured as operating profit before goodwill) with the profitability of other companies. The sample of comparator firms included:

7.32.1 newspaper publishing and advertising – ROS for this group of companies averaged 2-6% over 2001-2003;

7.32.2 newspaper publishing and advertising (excluding advertising agencies) – ROS averaged 3 – 10% over the three years; and

7.32.3 companies which had a similar tangible asset to turnover ratio Yell – ROS averaged 2-5% over the relevant period.

\(^{103}\) 2001 Classified directory advertising services – OFT review of undertakings.

\(^{104}\) OFT classified directory advertising services – reasons for referral to Competition Commission, April 2005.
Annex 8

Calculation of cost savings from reduced indirect radio advertising sales activity

A8.1 As a result of some budget switching away from radio or the purchase of less impacts, the hypothetical monopolist might be able to avoid some costs. Cost savings would have a positive impact on the profitability of a SSNIP.

A8.2 For the purpose of this analysis, it is assumed that a proportion of the hypothetical monopolist’s budget is sold through its own sales house, and another proportion sold through third party sales houses. This proportion reflects the current split in the industry\(^\text{105}\). It could however be the case that a hypothetical monopolist would own its own sales house, such that 100% of the indirect radio advertising revenue would be accounted for by sales through its own sales houses.

A8.3 It is assumed that when sales are made through the hypothetical monopolist’s sales house, the following types of cost might be avoided by the vertically integrated hypothetical monopolist indirect radio advertising supplier:

8.3.1 sales house staff salary costs (assumed to be a positive function of the number of impacts sold); and

8.3.2 sales staff commissions (revenue related).

A8.4 When sales are made through third party sales houses, it is assumed that the only type of cost affected (for the purpose of the profitability of the hypothetical monopolist radio advertising supplier) is the commission paid to the third party sales house, which is revenue related.

A8.5 The hypothetical monopolist is also assumed to save royalty fees and Ofcom licence fees, which are revenue related costs, on any advertising revenue foregone following the SSNIP. As in the direct radio advertising analysis, it is assumed that the total cost to the hypothetical monopolist associated with licence and royalty fees amounts to 11.5% of total radio advertising revenue (see paragraph 7.79).

A8.6 Ofcom has calculated two drivers of cost savings:

8.6.1 budget switched away: in this case cost savings are achieved as a result of saved staff salary costs, saved staff commission, saved third party sales house commission, saved licence fee and saved royalty payments; and

8.6.2 budget which maintains spend, gets less impacts: in this case cost savings only arise from reduced staff salary costs. Sales staff commission, third party sales house commission and licence and royalty payment fees do not vary as they are revenue related.

A8.7 These cost savings are net of cost increases resulting from the proportion of the budget which increases in response to the price rise (for agencies that switch some

\(^{105}\) Ofcom analysis suggests that approximately 90% of total indirect radio advertising revenue is accounted for by sales through own sales houses, whilst 10% is accounted for by sales through third party sales houses.
budget away), which will face higher revenue related sales staff commission, third party sales house commission, royalty fees and licence fees.

**Cost savings from budget switched away**

A8.8 Ofcom has calculated the sales staff salary cost per impact delivered and multiplied that by the number of impacts switched away to obtain cost savings from reduced sales staff costs.

A8.9 Ofcom has calculated the sales staff salary cost per impact as follows. The sales staff salary cost data relates to one sales house (First Radio Sales)\(^{106}\). Ofcom has calculated the number of impacts it sells starting from the total listening hours of the radio stations it sells airtime on behalf of. In each hour it is assumed that there are 10 minutes of advertising, hence 20 ‘30 second spots’ per hour. It is assumed that 50% of spots are sold to indirect advertisers (with the remaining 50% sold to direct advertisers), so in each hour 10 spots are sold to indirect advertisers. It is assumed that the listening of a spot by one listener corresponds to a commercial impact. The total listening hours per year are then multiplied by the number of spots sold to indirect advertisers per hour to get to total number of impacts delivered to indirect radio advertisers. The First Radio Sales annual sales staff costs are then divided by the total number of impacts sold to indirect radio advertisers by First Radio Sales to get to the sales staff salary cost per impact.

A8.10 Ofcom has calculated the number of impacts switched away by dividing the budget switched away by the price per thousand impacts. The staff salary cost per impact is then multiplied by the number of impacts switched away to obtain total staff salary cost saved.

A8.11 Ofcom has also included cost savings from saved sales staff commission, third party sales house commission, Ofcom licence fee and royalty fees. A sales staff commission per pound of revenue and saved third party sales house commission per pound of revenue was derived from the data from one sales house (First Radio Sales) data. The commission per pound of revenue is then multiplied by the budget switched away. The 11.5% rate levied for the Ofcom licence and royalty fees is also multiplied by the budget switched away (see paragraph 8.46).

**Cost savings from budget which maintains spend, gets fewer impacts**

A8.12 Ofcom has calculated how many fewer impacts would be obtained by those agencies that maintain spend in the face of a price rise. This was done by dividing the maintained budget by the price per thousand impacts before and after the price rise. The difference between the two gives how many fewer impacts are obtained for a given radio budget.

A8.13 The number of fewer impacts is then multiplied by the sales staff salary cost per impact to obtain total saved sales staff salary costs associated with these agencies that maintain radio spend and get less impacts.

\(^{106}\) Data from other sales houses is not currently available.
Revenue related cost increases from proportion of budget which increases spend

A8.14 Ofcom has calculated the revenue related cost increases from the proportion of budget which increases spend (from agencies that switch some budget away) and have netted those off the above cost savings. This increase in revenue potentially arises if a proportion of clients within the agency’s portfolio increase their radio spend following the price rise. The offsetting revenue related cost increases are calculated by multiplying the royalty fees rate, Ofcom licence fee rate, sales staff commission per pound of revenue and third party sales house commission per pound of revenue by the increase in revenue arising from the proportion of the budget which increases the radio spend in response to the price increase (from agencies that switch some budget away).
Annex 9

Comparison of spend profiles between survey switchers and full survey sample for sample of direct radio advertisers

A9.1 Ofcom has conducted analysis to ensure that the profile of switchers within its survey sample of direct radio advertisers is not significantly different from the profile of the whole of the direct radio advertising population and we have found that the profile is not significantly different.

A9.2 An analysis of the sample profile of direct radio advertisers (see table A5 below) shows that those who revealed their budget and those who answered the SSNIP test question were similar in profile to the entire sample. This suggests that the conclusions are valid as a broad rule across the different geographic regions and localities in the UK.

Table A5: Comparison of spend profile of survey switchers against full survey sample of direct radio advertisers

Note that due the relatively small sample of ‘switchers’ this analysis should be treated as indicative, and error margins should be noted. Data shown is profile data: all %s are the proportion of the column sample that fall into the row category.

<table>
<thead>
<tr>
<th></th>
<th>All Direct advertisers</th>
<th>All that disclosed spend</th>
<th>Switchers to any other media at 10% increase SSNIP</th>
<th>Switchers to press at 10% SSNIP (some or all budget)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Base:</strong></td>
<td>331</td>
<td>163</td>
<td>71</td>
<td>38</td>
</tr>
<tr>
<td><strong>Approx. error margins at 95% CI</strong></td>
<td>3.2% - 6.4%</td>
<td>4.4% – 7.2%</td>
<td>7.0% -11.6%</td>
<td>10% - 16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Types of advertising purchased*:</th>
<th>All Direct advertisers</th>
<th>All that disclosed spend</th>
<th>Switchers to any other media at 10% increase SSNIP</th>
<th>Switchers to press at 10% SSNIP (some or all budget)</th>
</tr>
</thead>
<tbody>
<tr>
<td>National Press</td>
<td>17%</td>
<td>20%</td>
<td>20%</td>
<td>13%</td>
</tr>
<tr>
<td>Regional/local press</td>
<td>78%</td>
<td>81%</td>
<td>83%</td>
<td>90%</td>
</tr>
<tr>
<td>Radio stations – national campaigns</td>
<td>2%</td>
<td>3%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>Radio stations – local campaigns</td>
<td>99%</td>
<td>100%</td>
<td>100%</td>
<td>100%</td>
</tr>
<tr>
<td>Internet (banners, pop ups etc)</td>
<td>19%</td>
<td>17%</td>
<td>20%</td>
<td>21%</td>
</tr>
<tr>
<td>Outdoor</td>
<td>27%</td>
<td>27%</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>Direct Mail</td>
<td>30%</td>
<td>28%</td>
<td>30%</td>
<td>40%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Business location:</th>
<th>All Direct advertisers</th>
<th>All that disclosed spend</th>
<th>Switchers to any other media at 10% increase SSNIP</th>
<th>Switchers to press at 10% SSNIP (some or all budget)</th>
</tr>
</thead>
<tbody>
<tr>
<td>England</td>
<td>86%</td>
<td>84%</td>
<td>87%</td>
<td>67%</td>
</tr>
<tr>
<td>Scotland</td>
<td>8%</td>
<td>10%</td>
<td>6%</td>
<td>8%</td>
</tr>
<tr>
<td>Wales</td>
<td>5%</td>
<td>6%</td>
<td>7%</td>
<td>5%</td>
</tr>
<tr>
<td>Northern Ireland</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>Number of local radio stations in area**:</td>
<td>All Direct advertisers</td>
<td>All that disclosed spend</td>
<td>Switchers to any other media at 10% increase SSNIP</td>
<td>Switchers to press at 10% SSNIP (some or all budget)</td>
</tr>
<tr>
<td>-----------------------------------------</td>
<td>-----------------------</td>
<td>------------------------</td>
<td>-----------------------------------------------</td>
<td>--------------------------------------------------</td>
</tr>
<tr>
<td>• 2</td>
<td>37%</td>
<td>36%</td>
<td>44%</td>
<td>50%</td>
</tr>
<tr>
<td>• 3 or more</td>
<td>15%</td>
<td>13%</td>
<td>10%</td>
<td>5%</td>
</tr>
<tr>
<td>• Unable to classify</td>
<td>48%</td>
<td>51%</td>
<td>46%</td>
<td>45%</td>
</tr>
<tr>
<td>Total advertising budget over last 12 months:</td>
<td>All Direct advertisers</td>
<td>All that disclosed spend</td>
<td>Switchers to any other media at 10% increase SSNIP</td>
<td>Switchers to press at 10% SSNIP (some or all budget)</td>
</tr>
<tr>
<td>• Less than £10k</td>
<td>20%</td>
<td>20%</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>• £10k - &lt;£20k</td>
<td>12%</td>
<td>16%</td>
<td>18%</td>
<td>11%</td>
</tr>
<tr>
<td>• £20k - &lt;£50k</td>
<td>17%</td>
<td>21%</td>
<td>20%</td>
<td>21%</td>
</tr>
<tr>
<td>• £50k - &lt;£100k</td>
<td>9%</td>
<td>13%</td>
<td>14%</td>
<td>16%</td>
</tr>
<tr>
<td>• £100k - &lt;£500k</td>
<td>8%</td>
<td>9%</td>
<td>7%</td>
<td>8%</td>
</tr>
<tr>
<td>• £500k - &lt;£1m</td>
<td>1%</td>
<td>2%</td>
<td>1%</td>
<td>0%</td>
</tr>
<tr>
<td>• £1m+</td>
<td>0%</td>
<td>1%</td>
<td>0%</td>
<td>0%</td>
</tr>
<tr>
<td>• DK/Refuse</td>
<td>34%</td>
<td>17%</td>
<td>18%</td>
<td>26%</td>
</tr>
<tr>
<td>Product/service advertising***:</td>
<td>All Direct advertisers</td>
<td>All that disclosed spend</td>
<td>Switchers to any other media at 10% increase SSNIP</td>
<td>Switchers to press at 10% SSNIP (some or all budget)</td>
</tr>
<tr>
<td>• Automotive</td>
<td>6%</td>
<td>6%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>• Education</td>
<td>10%</td>
<td>12%</td>
<td>9%</td>
<td>13%</td>
</tr>
<tr>
<td>• Financial</td>
<td>5%</td>
<td>3%</td>
<td>4%</td>
<td>8%</td>
</tr>
<tr>
<td>• FMCG</td>
<td>6%</td>
<td>5%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>• Leisure services (restaurants etc)</td>
<td>27%</td>
<td>28%</td>
<td>28%</td>
<td>18%</td>
</tr>
<tr>
<td>• Utilities</td>
<td>6%</td>
<td>5%</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>• Retail</td>
<td>18%</td>
<td>18%</td>
<td>18%</td>
<td>21%</td>
</tr>
<tr>
<td>Purchase approach attitude:</td>
<td>All Direct advertisers</td>
<td>All that disclosed spend</td>
<td>Switchers to any other media at 10% increase SSNIP</td>
<td>Switchers to press at 10% SSNIP (some or all budget)</td>
</tr>
<tr>
<td>• Have an idea of what want at start</td>
<td>53%</td>
<td>54%</td>
<td>52%</td>
<td>58%</td>
</tr>
<tr>
<td>• Set a budget and see what I can get</td>
<td>30%</td>
<td>33%</td>
<td>32%</td>
<td>26%</td>
</tr>
<tr>
<td>• It depends</td>
<td>14%</td>
<td>12%</td>
<td>14%</td>
<td>13%</td>
</tr>
<tr>
<td>Target audience:</td>
<td>All Direct advertisers</td>
<td>All that disclosed spend</td>
<td>Switchers to any other media at 10% increase SSNIP</td>
<td>Switchers to press at 10% SSNIP (some or all budget)</td>
</tr>
<tr>
<td>• Adults</td>
<td>6%</td>
<td>7%</td>
<td>7%</td>
<td>11%</td>
</tr>
<tr>
<td>• Across the board/everyone</td>
<td>26%</td>
<td>21%</td>
<td>20%</td>
<td>24%</td>
</tr>
<tr>
<td>• Local people</td>
<td>6%</td>
<td>4%</td>
<td>6%</td>
<td>5%</td>
</tr>
<tr>
<td>• Families</td>
<td>5%</td>
<td>6%</td>
<td>3%</td>
<td>0%</td>
</tr>
<tr>
<td>• Homeowners</td>
<td>5%</td>
<td>6%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>Negotiated over cost?:</td>
<td>All Direct advertisers</td>
<td>All that disclosed spend</td>
<td>Switchers to any other media at 10% increase SSNIP</td>
<td>Switchers to press at 10% SSNIP (some or all budget)</td>
</tr>
<tr>
<td>• (Only asked to those who gave a cost for last campaign, so real % is higher)</td>
<td>29%</td>
<td>30%</td>
<td>37%</td>
<td>42%</td>
</tr>
</tbody>
</table>
**Radio Advertising Market Definition Research**

<table>
<thead>
<tr>
<th>Number of employees:</th>
<th>All Direct advertisers</th>
<th>All that disclosed spend</th>
<th>Switchers to any other media at 10% increase SSNIP</th>
<th>Switchers to press at 10% SSNIP (some or all budget)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Less than 5</td>
<td>19%</td>
<td>19%</td>
<td>23%</td>
<td>24%</td>
</tr>
<tr>
<td>• 5-9</td>
<td>20%</td>
<td>19%</td>
<td>18%</td>
<td>24%</td>
</tr>
<tr>
<td>• 10-24</td>
<td>22%</td>
<td>23%</td>
<td>27%</td>
<td>16%</td>
</tr>
<tr>
<td>• 25-100</td>
<td>22%</td>
<td>18%</td>
<td>21%</td>
<td>18%</td>
</tr>
<tr>
<td>• 101+</td>
<td>17%</td>
<td>21%</td>
<td>10%</td>
<td>16%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Turnover:</th>
<th>All Direct advertisers</th>
<th>All that disclosed spend</th>
<th>Switchers to any other media at 10% increase SSNIP</th>
<th>Switchers to press at 10% SSNIP (some or all budget)</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Less than £250k</td>
<td>15%</td>
<td>12%</td>
<td>16%</td>
<td>13%</td>
</tr>
<tr>
<td>• £250k - &lt;£1m</td>
<td>20%</td>
<td>24%</td>
<td>32%</td>
<td>32%</td>
</tr>
<tr>
<td>• £1m - £20m</td>
<td>21%</td>
<td>25%</td>
<td>23%</td>
<td>21%</td>
</tr>
<tr>
<td>• £20m+</td>
<td>4%</td>
<td>4%</td>
<td>4%</td>
<td>5%</td>
</tr>
<tr>
<td>• DK</td>
<td>28%</td>
<td>27%</td>
<td>18%</td>
<td>21%</td>
</tr>
<tr>
<td>• Refuse</td>
<td>12%</td>
<td>8%</td>
<td>7%</td>
<td>8%</td>
</tr>
</tbody>
</table>

*Only most frequent mentions are shown*

**This analysis is subject to even wider error margins and should therefore be treated with particular caution**

***Only most frequent mentions are shown***

A9.3 Ofcom is therefore comfortable with the robustness of the finding that the pricing of direct radio advertising appears to be constrained by demand-side substitution to press advertising.