

# Assessment of the Market Impact of the BBC's New Digital TV and Radio Services

**An analysis by Ofcom, conducted as an input into the independent reviews of the BBC's new digital TV and radio services**

**13 October 2004**

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# 1. Introduction

- 1.1 In the last licence fee settlement in February 2000 Chris Smith, the then Secretary of State for Culture, Media and Sport ('Secretary of State') said the BBC should "provide a strong and distinctive schedule of benchmark quality programmes on all its services and should drive the take-up of new digital and on-line services".
- 1.2 By the end of 2002, the BBC had, as part of its response, launched five new digital radio services (the radio stations 1Xtra, BBC 6, BBC 7, BBC Asian Network and Five Live Sports Extra) and four new digital TV services (the channels BBC 3, BBC 4, CBeebies and CBBC).
- 1.3 In April 2004, the Secretary of State commissioned two independent reviews – one of the BBC's digital TV services (led by Professor Patrick Barwise) and the other of the BBC's digital radio services (led by Tim Gardam). As part of this periodic assessment, the Secretary of State asked the Office of Communications ('Ofcom') to assist by providing an independent technical assessment of the market impact of the BBC's new digital services.
- 1.4 Ofcom was subsequently asked by Professor Patrick Barwise to assist by providing data on whether the BBC's new services are meeting their remits and the conditions imposed upon them by the Secretary of State at approval. This data was supplied to Professor Barwise separately and is not otherwise referred to in this report.
- 1.5 Our approach has been to assess the impact of the BBC's new services on the overall structure of the market and on the specific segments in which these new services may be having a significant impact on competition and innovation. Reckon LLP consultants assisted with the development and application of this approach.
- 1.6 As part of our assessment we have independently reviewed the BBC's own market impact analysis (undertaken for the BBC by consultants Oliver & Ohlbaum Associates) by assessing its sensitivity to changes in the assumptions which underpin it. This sensitivity analysis was undertaken with the assistance of Spectrum Strategy Consultants.

## 2. Summary of market impact

2.1 We have examined the impact of the BBC's new services from two perspectives:<sup>1</sup>

- an overview of the effect of the new services on the overall market – i.e. the impact on developments in market structure and competition. In particular, we look at the impact of digital take-up on the effectiveness of competition in the broadcasting sector and the extent to which the BBC is contributing to these changes.
- a closer look at specific impacts where competition or innovation may be threatened by the presence of the BBC – i.e. the impact on the finances and business models of specific commercial operators and the implications of these effects for competition. The BBC's own quantification of the monetary impact of BBC's new services on their rivals provides an important input to this analysis.

### Overall impact

2.2 On the positive side, the BBC's new services have contributed to digital uptake, in both television ('TV') and radio, although the scale of the contribution may have been overstated in the analysis presented by the BBC. Digital broadcasting helps the emergence of more effective competition in the broadcasting market. This tends to deliver more benefits for both consumers and citizens.

2.3 In digital TV, the BBC's main overall impact has been via its involvement in Freeview. By backing and cross promoting digital terrestrial TV ('DTT') and enhancing its offering with attractive new services, the BBC has been central to DTT's recent success. In turn, the success of Freeview is:

- likely to increase inter-platform competition;<sup>2</sup>
- may increase commercial revenues (as commercial advertising revenues have risen for digital only channels and more households have been drawn into the pay TV market). Over time, increased competition is likely to bring dynamic benefits to consumers in the form of greater innovation and choice.

2.4 The main contribution made by the BBC's new services to the emergence of digital radio has been both through DTT (i.e. many households access the digital radio available on Freeview) and via digital audio broadcasting ('DAB'). The BBC has worked closely with the commercial sector, in particular through the Digital Radio Development Bureau ('DRDB'), to raise awareness of DAB and nurture its early growth. As with digital TV, the BBC's engagement with digital radio has helped grow the market and enabled the emergence of greater competition and more opportunities for commercial operators.<sup>3</sup>

2.5 However, there are potentially significant costs associated with the BBC's activities. There is a real risk that the BBC's involvement in some market segments may leave insufficient revenues<sup>4</sup> for commercial operators wishing to supply those segments now or in future.

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<sup>1</sup> We have not assessed the justification for BBC intervention in the market nor have we assessed the merits of digital switchover. These issues are considered in detail in our PSB review and our digital switchover report respectively. This means we have not weighed all the costs of BBC intervention (e.g. whether the BBC new services are good value for money) against all the benefits (e.g. the direct value to consumers arising from the distinctiveness of the BBC new services). We have focused on the impact of the BBC's new services on the competitive process and hence on market outcomes. This analysis provides insights on a subset of the costs and benefits which have been considered by the independent reviews. See Section 4 for our approach.

<sup>2</sup> Although by favouring the platform with least capacity (i.e. DTT) it is not certain that the impact on competition between services will be positive. Also, by promoting DTT, the BBC might impact on the competitive position of other platforms. Finally, in this market impact analysis we have focused on the effect of the BBC's new services on competition. We have not looked at the distinctiveness of the new services or at the efficiency with which they have been supplied. See Section 4 for more on our approach.

<sup>3</sup> For instance, digital radio leads to better segmentation of the market and more efficient extraction of advertising revenues.

<sup>4</sup> In other words, the BBC's presence may leave insufficient audience or may reduce consumers' willingness to such a level that there are inadequate revenues for commercial competitors to continue to supply the market segment.

Also, uncertainty about the future strategy of the BBC's new services may exacerbate the risks associated with new market entry or content innovation, by extending the range of services over which commercial operators may face competition from the BBC in future. Combined with the BBC's large budgets and relatively loose remits this may, in time, diminish overall levels of competition, investment and innovation.

## Specific impacts

- 2.6 It is difficult to quantify the precise impact of the BBC's new services on the overall competitive environment or, indeed, to separate out the impact of the new services from that of the BBC's overall support for digital TV and radio. The BBC's own assessment was carried out by consultants Oliver & Ohlbaum Associates ('O&O') and focused on the question of how much commercial revenues have increased or declined as a result of the presence of the new BBC services in the market.<sup>5</sup> O&O estimated that the total impact on commercial TV revenues was between -£3.3m p.a. and -£31.1m p.a. while the impact on radio was +£2.9m p.a.
- 2.7 We reviewed this analysis with Spectrum Strategy Consultants ("Spectrum"). Spectrum provided a revised market impact assessment which tested the sensitivity of O&O's results to the assumptions they used. More specifically, Spectrum calculated revised estimates by applying different (but plausible) assumptions to the O&O methodology to see how much the results changed.
- 2.8 We found that:
- The results from the type of approach used by O&O tend to be assumption driven. In other words, findings about the extent of the revenue impact of the BBC new services depend on the assumptions made in the analysis.
  - Results from this type of analysis tend to be highly sensitive to assumption changes. When plausible adjustments were made to some of O&O's key assumptions, Spectrum found that the impact on commercial rivals changed from being positive to negative. In TV, adjusting key underlying assumptions increases the total cost to commercial channels by over 50 per cent. In radio, adjusting one key assumption changes the total impact from slightly positive to a negative.
  - Two assumptions have a potentially significant effect. First, we consider it highly unlikely that Freeview will afford channels any significant leverage in their negotiations with Sky over subscription fees. Freeview has no room for extra channels, offers far less scope for subscription revenues (since few DTT set top boxes ('STB') have conditional access ('CA') capabilities) and reaches far fewer people than Sky. This assumption accounts for +£6m of the benefit attributed to the new BBC TV services by O&O.
  - Second, O&O only assessed the incremental impact of the new services over and above the impact of BBC Choice and Knowledge (1.9 per cent multichannel share at the end of 2001). The combined share of the new services was 2.7 per cent at the end of 2003 but O&O were instructed by the BBC to only look at the extra share taken by the new services – i.e. 0.8 percentage points. Including BBC Choice and Knowledge in the counterfactual understates the market impact of the new services. The actual impact could be around twice the effect calculated using the O&O/BBC approach. Only

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<sup>5</sup> O&O An Assessment of the Market Impact of the BBC's Digital TV Services A Report for the BBC's Submission to the DCMS Review March 2004 ('TV Report') and O&O The Market Impact of the BBC's Digital Radio Services A Report for the BBC's Submission to the DCMS Review March 2004 ('Radio Report').

the incremental impact was assessed for BBC 3 in 2003 but we think it is important to assess the total impact of new BBC services.

- 2.9 The new BBC services may, more generally, have a chilling effect on innovation and on the development of new services. In emerging market segments, moves by a well-funded BBC service to build ratings by offering more commercial output may reduce the funds available to rivals for innovative new programming. Competing for and driving up the price of commercially attractive programme rights might have a similar effect. More ambitious projects might therefore be postponed or abandoned as rivals seek to avoid head-on competition.
- 2.10 We examined the niche segments directly affected by the BBC's new services to assess their impact on competition and innovation. We found that the extent of the BBC's impact was related to the following factors:
- The size of the market niche and more importantly the diversity and robustness of demand in the niche. In very small market niches the presence of the new BBC services may leave so little audience or so little willingness to pay for commercial services that the viability of these services would be extremely limited. For instance, while BBC 7 might have had a highly significant impact on the relatively small market for non-news speech based radio, it is unlikely that BBC 3 has significantly undermined competition between entertainment TV channels focused on young adults.
  - The scale of the BBC's investment relative to the potential size and contestability of each particular market segment. There is a large disparity between the resources allocated by the BBC to its new services and the budget available to similar digital-only channels or stations.<sup>6</sup> For instance, the combined programming budget for the new BBC digital TV channels was nearly £171m in 2003 – which exceeds Channel 5's budget. BBC 3 alone spends £96.5m. A typical thematic TV channel spends around £5m on programming whereas a digital only radio station would spend around £100,000.
  - The risk that the BBC's new services will grow their audience by pursuing more commercial audiences. In relation to children's TV, for instance, submissions argued that CBeebies and CBBC have been scheduling more commercially in pursuit of ratings (e.g. with more cartoons).
  - The risk that the BBC's new services will drive up the programming costs for commercial rivals by bidding up the price of popular acquisitions. For instance, given the size of its budget, there is a risk that in future BBC 3 could undermine competition or investment if allowed to use its large budget to pursue a more commercial strategy and drive up the costs of acquired programming.
  - The risk that the BBC's new services might limit access to key rights in such a way that commercial rivals are put at a competitive disadvantage. For instance, limitations on rivals' access to the BBC's speech archives may be due to the presence of BBC 7 in speech radio segment.<sup>7</sup>
- 2.11 The BBC currently plays a role guiding competition to deliver higher quality, more diverse programming than it might deliver on its own. As competition grows, and channels and stations become better funded, the need for the BBC to shape competition in this way may diminish. Even, in a digital world, however, it is likely that the BBC will have some role

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<sup>6</sup> The scale of the budget of the BBC channels relative to their performance raises questions surrounding the value for money they offer. This expenditure translates into an average spend per viewer hour across the four BBC channels of over six times that recorded by Channel 5, and five times the level realised by ITV1. We have not looked at value for money as part of this report

<sup>7</sup> Similarly, the BBC's acquisition of all exclusive football radio rights for its sports stations (i.e. Five Live Sports and Sports Extra) might limit competition in the downstream market for sports radio services.

setting standards and encouraging different forms of competition around broadcasting content which provides public benefits.

## Observations

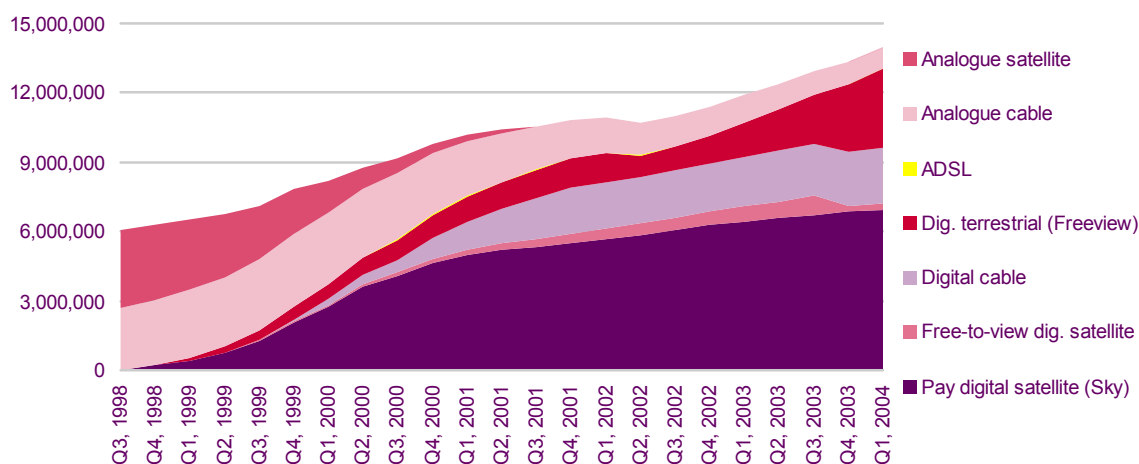
- 2.12 By embracing digital technology, the UK broadcasting market is moving in the right direction. The BBC has played a key role fostering the market's move to digital, with potentially significant dynamic benefits for consumers – although the scale of this impact has potentially been overstated in analysis presented by the BBC.
- 2.13 However, there are also clear threats posed by the BBC to current and future competition and innovation. The BBC's new services can adversely affect commercial investment in burgeoning niche markets by leaving insufficient audience for new entrants and driving up programming costs (or restricting access to key content). The BBC's services are well funded. If the BBC decided to pursue the same format/programming as a competitor, any investments made by that player would be put in jeopardy. Similarly, if the BBC was perceived by the market to aggressively target a narrowly defined content niche, this could leave little potential audience for prospective commercial suppliers of that type of content. In such circumstances, commercial operators might consider it prudent to simply refrain from developing innovative new projects or, in the extreme, to exit the market. This risks limiting current competition and restricting the emergence of new forms of competition in future.
- 2.14 Safeguards can and must be put in place to minimise these risks to competition. Perhaps, most importantly, measures should be considered to provide more certainty to commercial investors, about both the BBC's current service remits, and any future digital development plans. We also suggest there could be real benefits if Ofcom and the BBC Governors could agree a common approach for assessing the market impact of the BBC's new services in future. Each time a BBC service is proposed or reviewed, several different impact assessments are carried out. Frequently, this results in a duplication of effort and waste of resources that would be better focused on collecting evidence of the actual impact on the market's ability to deliver what consumers and citizens want. This common assessment framework should be broader than just considering direct market impact – it should also look at whether the proposed service is the most efficient, best 'value for money' way of achieving what the service aims to achieve (i.e. taking into account the budget that has been allocated to it, the appropriateness of the service's objectives and the possibility that the markets might also partly or fully provide similar types of programming). We note that the idea of developing a common assessment framework is consistent with (though not identical to) the "public value test" proposed by the BBC in its response to the Charter review. We have begun work with the BBC developing such a framework.
- 2.15 We now turn to consider the market impact of the BBC's new digital services in more detail.

## 3. Market overview

### Television in a digital world

- 3.1 At the start of 1998, there was no digital television; 6 years later, and more than half of all UK homes now have access to digital TV. The chart below illustrates the rapid increase in take-up of digital TV in UK homes. This trend looks set to continue whatever date is set for switchover.

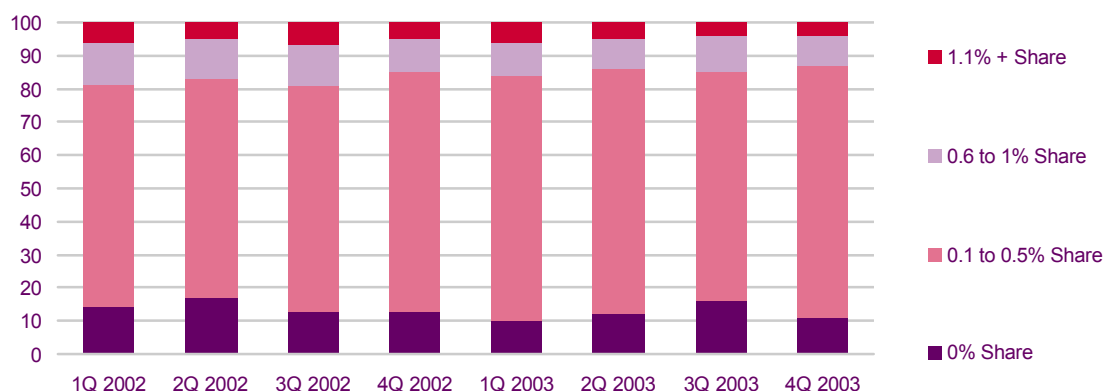
**Exhibit 1:** Take-up of digital television in the UK



Source: Ofcom

- 3.2 Digital TV has dramatically increased the number of channels and stations available to consumers. Channel numbers took off around the time that digital TV launched. There are now 272 channels on Sky excluding pay per view services.
- 3.3 With the increase in channel numbers, audiences have fragmented. Channel numbers have increased by half with only a corresponding 10 per cent rise in thematic share (in multichannel homes – i.e. 40 to 43 per cent). The average channel share has fallen from 0.25 to 0.18 per cent between 2001 and 2003. Most of this loss in audience share has been suffered by leading thematic channels (i.e. with share above 0.6 per cent).

**Exhibit 2:** UK thematic channel audience share fragmentation



Source: O&O



- 3.4 As a result, average revenue per thematic channel has been declining over the last three years. This has been due to flat prices for thematic advertising impacts together with low growth in pay TV home numbers – downward pressure on channel subscription fees has also contributed to this decline.<sup>8</sup>

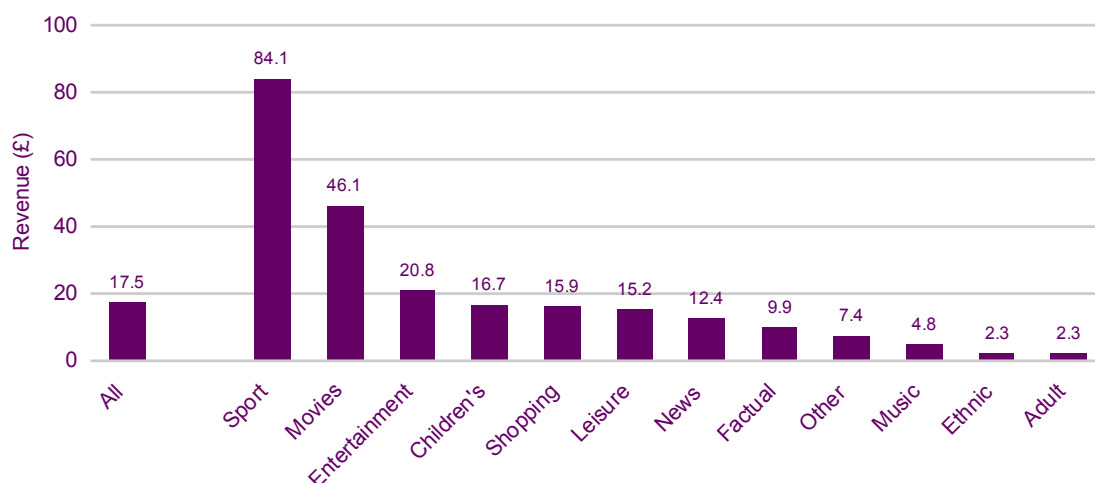
**Exhibit 3:** Commercial basic tier and free to view thematic channel revenue



Source: O&O

- 3.5 Revenues earned per channel vary by industry segment. Leisure, entertainment and children's services led a long list of channels earning £15m per year or less, with many channels delivering a service on less than £5m per year.

**Exhibit 4:** Average revenue per thematic channel

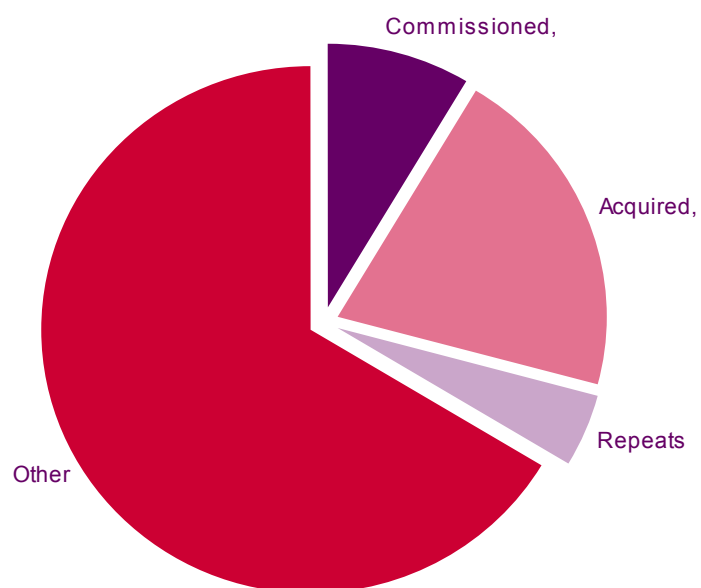


Source: Ofcom

- 3.6 In the face of declining revenues, many thematic channels have resorted to cheaper acquired programming to fill their schedules and have focused on niche audiences where they have a greater chance of capturing viewers. A small number have begun to increase their audiences (and revenues) and have been able to increase their investment in original UK content.

<sup>8</sup> O&O estimates that the average price per channel carried per household per month has fallen from 7.5 pence in 2001 to 6.6 pence in 2003.

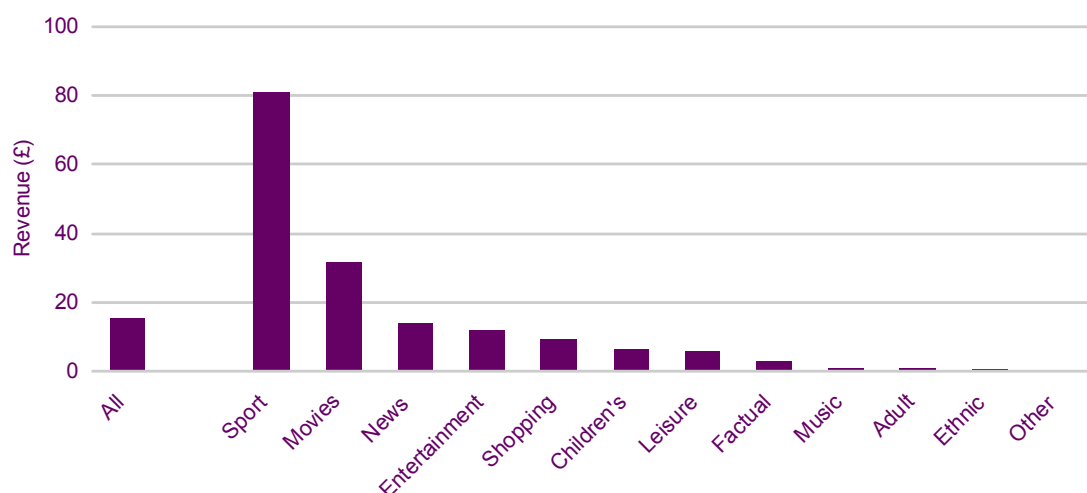
**Exhibit 5:** Digital channels' broadcast hours by origination (excluding BBC)



Source: Ofcom

- 3.7 The amount spent on programming varies by industry segment. Most channels spend less than £6m on programming in 2003; excluding news, entertainment and leisure channels, the average falls well below £3m per channel.

**Exhibit 6:** Average programme spend per channel



Source: Ofcom

- 3.8 The past six years have seen a dramatic rise in output from the BBC as it has launched its array of digital services. The BBC now broadcasts 380 hours a week more output than it did before digital TV launched in 1998. This is primarily due to the BBC's new digital TV services considered in more detail in the table below. As can be seen, the new BBC TV services are very well funded.

**Exhibit 7:** Summary of characteristics of new BBC digital TV services

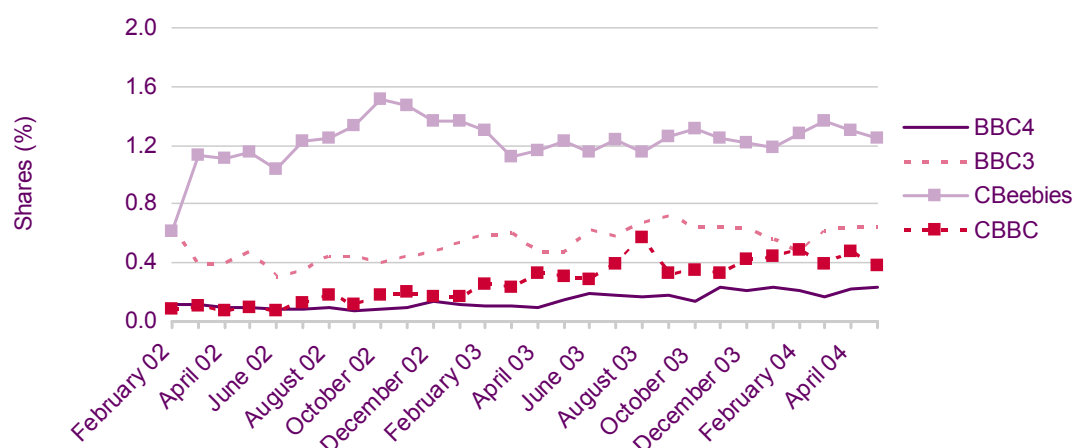
Channel	Statement of programme policy 2003/4	Output in 2003	Budget in 2003/4	Weekly reach and audience share in multichannel homes 2003
BBC 3 replaced BBC Choice in 2003	"BBC 3 aims to offer an intelligent, ambitious mix of programmes which reflect the things that matter to young British adults. The channel is committed to a mixed schedule of news, current affairs, education, music, arts, science and coverage of international issues, as well as to high quality, innovative drama, comedy and entertainment."	47% light entertainment (down from 60% in 2002), 18% general factual (up from 14%), 11% drama (up from 7%), 10% news (down from 12%), 7% arts (up from 4%) 3% current affairs (up from 1%). 5% of its output was acquired (down from 10% in 2002).	£97m	Reach of 7.0% (down from 8.0% in 2002) and 0.6% (down from 0.5%) share
BBC 4 launched in 2002 as the BBC's	"BBC4 aims to serve audiences in search of greater depth and range in their viewing. Its ambition is to be British	BBC 4 is a mixed genre channel comprising 41% arts (down from 35% in	£37m. BBC 4 spent just under 46 per cent of its total budget on arts.	Reach of 2.1% (up from 1.0% in 2002) and 0.2% (up from 0.1%) share.

arts and culture channel. It replaced BBC Knowledge	television's most intellectually and culturally enriching channel. BBC 4 offers a distinctive mix of documentary, performance, music, film and topical features as a satisfying alternative to more mainstream programming."	2002), 28% factual (down from 37%), 9% films (down from 12%), 8% current affairs (up from 3%) 6% drama (constant from previous year) and 5% news (up from 4%). 20% of its output was acquired (down from 23%). BBC 4 accounts for two-thirds of the BBC's total arts output.		
CBBC	"The CBBC channel offers a distinctive mixed schedule for children aged 6-12, encouraging them to find out more about existing interests or inspiring them to develop new ones and helping them to understand and embrace the world around them. The channel puts an emphasis on encouraging participation."	86% of its output in children's (down from 87% in 2002) and 14% education (up from 13%). 24 per cent of its output is acquired (down from 27%).	£26m	Reach of 2.3% (up from 1.1%) and a share of 0.4% (up from 0.3%) share.
CBeebies launched in 2002. It broadcasts from 7.00am to 7.00pm	"CBeebies offers new, high-quality, mainly UK produced programmes to educate and entertain the BBC's youngest audience. The services provides a range of pre-school programming designed to encourage learning through play for children aged five and under in a consistently safe environment."	The schedule comprises a four-hour block which is repeated three times a day, followed by the Bedtime Hour from 6.00pm to 7.00pm. 96% is children's output (down from 97% in 2002) while 4% is educational (up from 3%). 18% of its output is acquired (up from 22%).	£15m	Reach of 5.0% (up from 4.1%) and a share of 1.2% (constant from 1.2%) share.

Source: BBC, Ofcom

### 3.9 The BBC's new services have not taken as much audience share as was expected at launch (see chart below).

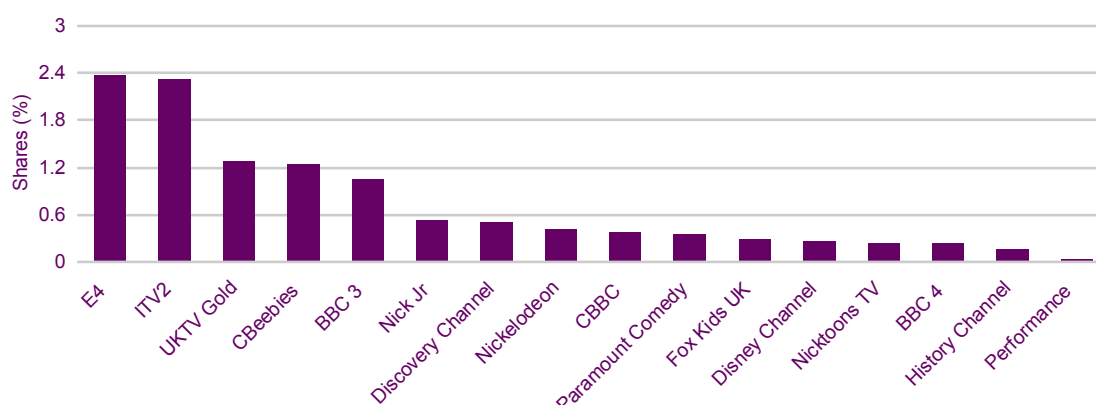
**Exhibit 8:** Audience share of new BBC digital TV channels



Source: BARB

3.10 The chart below shows the relative success of the new BBC TV services.

**Exhibit 9:** Audience share of BBC and commercial services in multichannel homes

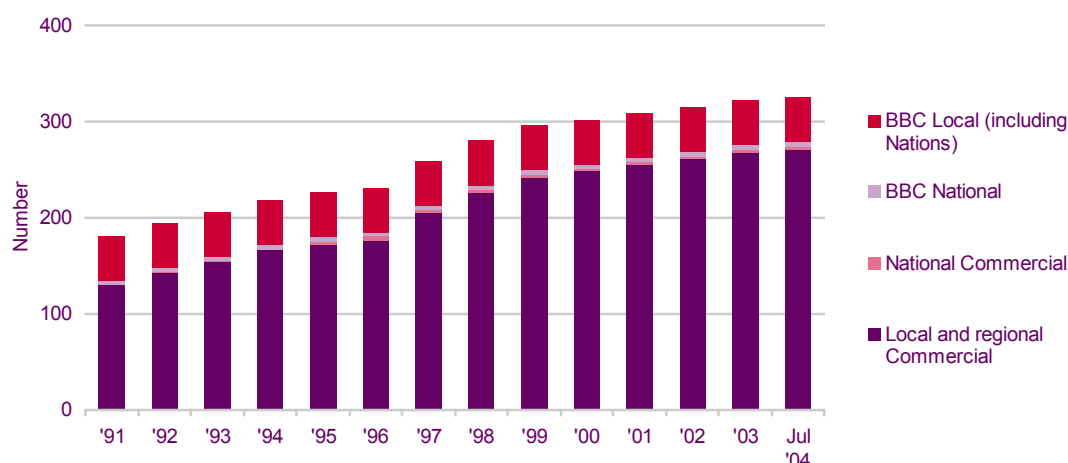


Source: BARB

## The rise of radio

3.11 From the launch of the first commercial radio stations, the UK radio industry has grown rapidly in terms of listening hours, numbers of stations and revenue generated. By the end of June 2004, there were 211 local FM commercial radio services broadcasting, together with 59 local AM licences, 1 national FM commercial station (Classic FM) and two national AM commercial stations (TalkSPORT and Virgin Radio). In addition, the BBC broadcasts 5 analogue radio networks, 40 local radio stations in England and national services for each of Scotland, Wales and Northern Ireland. Increases in station numbers have increased the choice available to listeners – London has the greatest choice with over 20 analogue stations while rural areas have less choice (e.g. 8 stations on average).

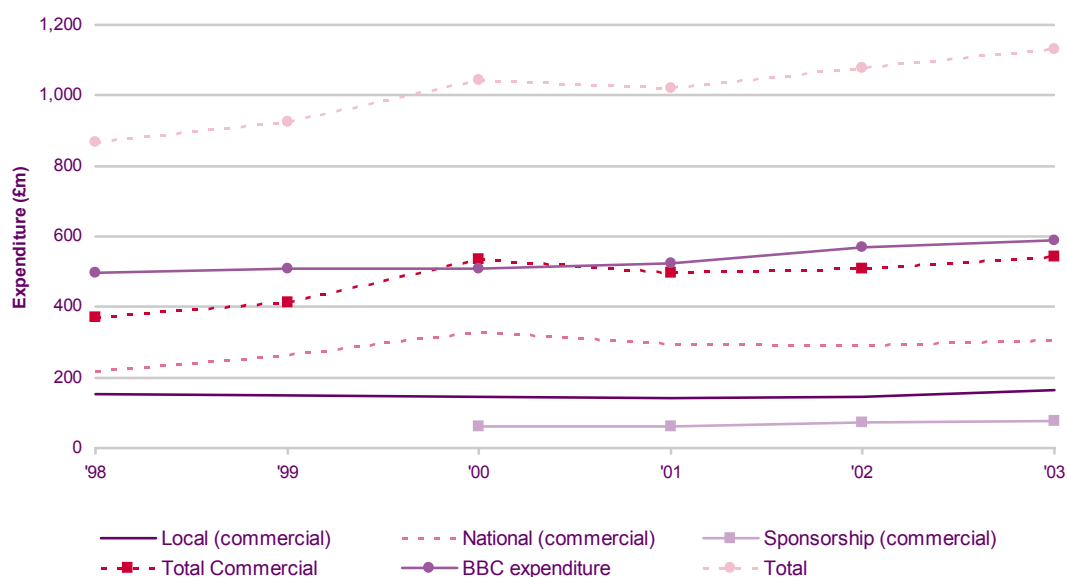
**Exhibit 10:** Number of analogue radio (AM & FM) stations in the UK



Source: Ofcom / BBC

3.12 The growth of the commercial radio industry has meant growth in revenue for the industry. For the year to March 2004 commercial radio revenue was £611.6m, an increase over the year of 7.8 per cent. The BBC is a significant element of all radio revenue and spending in the UK. Until 5 years ago the BBC spent more money on radio than was received in revenue by all of the commercial stations combined.<sup>9</sup>

**Exhibit 11:** Split of UK radio industry revenue

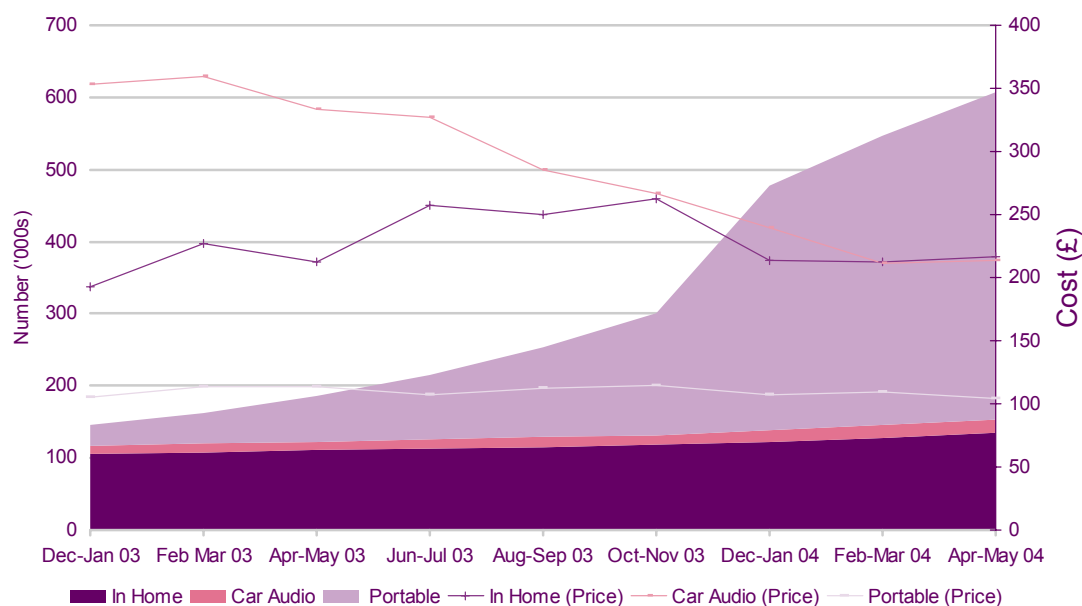


Source: RAB/Ofcom/BBC

<sup>9</sup> BBC spending appeared to decline in 2003 partly due to a change in the way that spending was reported.

- 3.13 Digital Audio Broadcasting ('DAB') has been one of the major growth stories in the UK radio industry over the last 5 years. It has led to an increase in quality, choice and convenience in many parts of the UK. Since the start of 2003 the GfK figures show rapid take up of DAB sets. DRDB predicts that there will be one million sets sold by the end of 2004.

**Exhibit 12:** DAB sets uptake and change in price



Source: DRDB/GfK

- 3.14 However, the number of DAB sets is still dwarfed by analogue radio sets and, more generally, digital radio is far less developed than digital TV. The 24.5 million UK households have (on average) 4 to 5 analogue radio sets each, giving a total of 100m analogue radio sets in the UK. DAB sets therefore represent only 0.5 per cent of all UK radios. Whereas digital TV now reaches over half of all UK households, RAJAR found that only 27 per cent of the population have ever listened to digital radio at some point.
- 3.15 The BBC launched the first DAB broadcasts in September 1995 with simulcasts of their existing network analogue stations. In 2002, they launched 5 new digital services only on their national multiplex. These new digital radio services are considered in more detail in the table below. Again, it is clear that these new radio services are well funded compared to the average digital only radio station which has a budget of around £100,000.

**Exhibit 13:** Summary of characteristics of new BBC digital TV services

Station	Statement of programme policy 2003/4	Output 2003	Budget 2003/2004	Weekly reach among digital listeners in 2003/4
BBC 6 Music	"BBC6 Music offers lover of popular music current releases outside the mainstream, new concert and session tracks and unique access to the work of artists from the last 40 years through the BBC Sound Archive. It aims to provide a social and cultural context through music news, documentaries and debate, and is committed to providing interactive content." BBC 6 is targeted at the 25 to 40 year old audience, in practice, it seems that BBC 6 Music achieves an older demographic	93% music (down from 94% in 2002) and 4% news (up from 3%). Music from the 70s, 80s and 90s, mixed with some contemporary music.	£4.2m	0.3%
BBC 7	"BBC 7 is a speech based service providing pure entertainment to attract a new audience to speech radio. The network offers comedy, drama and readings, mainly from the BBC archive. It also aims to be the home of children's speech radio, with daily live programmes for youngsters."	43% drama, 37% entertainment and 19% children's. Drama and comedy programming. It has a similar focus to Radio 4.	£4.5m	0.6%
BBC Five Live Sports Extra	"BBC Five Live Sports Extra is a part time extension of BBC Radio Five Live, aimed at bringing a greater choice of action to sports fans. It extracts more value for licence payers from sports rights already owned by the BBC by offering alternative commentaries to those provided on Five Live."	100% sports. Simultaneous sporting events that could not previously be broadcast on BBC Five Live Sports.	£1.7m	0.7%
BBC 1 Xtra	"1Xtra aims to play the best of contemporary black music with a strong emphasis on delivering high-quality live music and supporting new British artists. 1 Xtra also brings listeners a bespoke news services, regular discussion programmes and specially commissioned documentaries, plus information and advice relevant to the young target audience, particularly – although not exclusively – those from ethnic minorities." 1 Xtra's audience is comprised largely of under-30s.	90% music, 5% current affairs and 3% news. Urban 'street' music such as R&B, Drum and Base, hip hop, Garage and rap.	£6.1m	0.6%
BBC Asian Network	"BBC Asian Network offers music, news, sports, debate, entertainment and drama for British Asians. It broadcasts	44% music, 19% news, 23% current affairs, 5% sport and 4% religion. Roughly	£4.3m	4%



	primarily in English but also in a range of languages spoken by UK Asians. It aims to be the main forum for debating issues concerning British Asian communities."	equal combination of speech, music, sports and news aimed at the UK's Asian population. It broadcasts in five Asian languages throughout the evening, and possesses a network of reporters in various UK cities that collate news and features from the Asian community		
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Source: BBC

3.16 Digital One was awarded a national commercial multiplex licence in 1998 and went on air in November 1999. The stations carried on Digital One are set out in the following table.

**Exhibit 14:** Digital One digital radio multiplex line up

Station	Description	Digital/Analogue
Planet Rock	Classic rock of yesterday	Digital only
Core	Chart and dance music for teens	Digital only
Life	Contemporary music featuring classics	Digital only
Oneword	Readings of plays, books, comedy and reviews 24 hours a day	Digital only
Classic FM	Relaxing classics	Digital and analogue
TalkSPORT	Sport and news 24 hours a day	Digital and analogue
Virgin Radio	Classic rock and pop 24 hours a day	Digital and analogue
PrimeTime Radio	Melodic hits from the last 6 decades	Digital and analogue

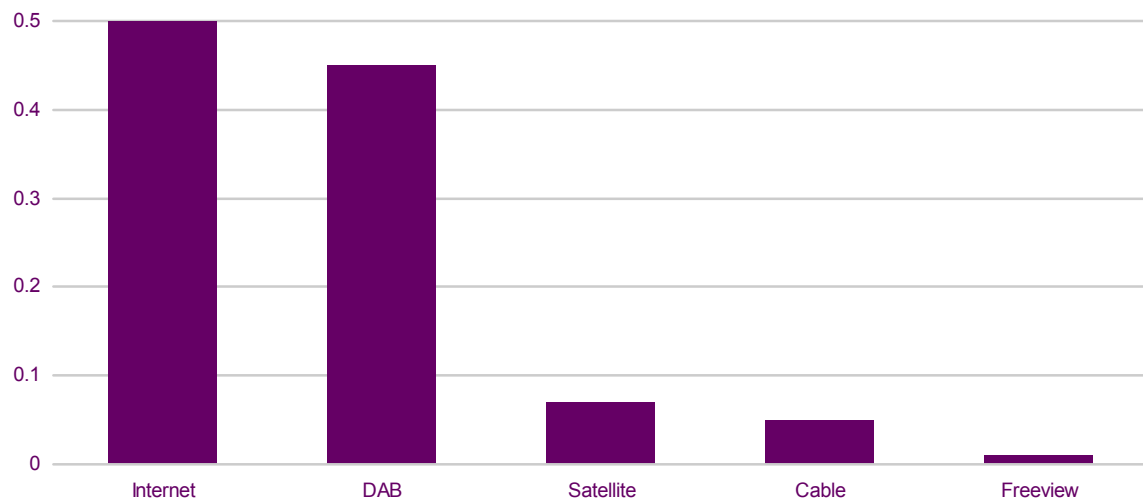
Source: DRDB

3.17 Local muxes can include an array of other radio stations. For instance, in London, it is also possible to receive a long list of commercial stations including Choice FM, Smash Hits, Panjab Radio, Virgin Radio Groove, Jazz FM, Kerrang, Sunrise Radio, Xfm, Saga Radio, YAAR Radio, 95.8 Capital FM, Kiss 100, the Storm, The Arrow, Oneword and the Hits.<sup>10</sup>

3.18 Increased radio listening on other digital platforms has been another major trend characterising radio in recent years. Analogue stations are now available on a wide variety of digital platforms with the Internet being particularly popular. Half of all stations are available through websites and 45 per cent of stations are also available on a DAB multiplex.

<sup>10</sup> Also: LBC 1152 AM, Century Digital, Easy Radio London, SBN, Galaxy 105, Capital Gold 1548AM, Hearth 106.2, LBC 97.3FM, Gaydar, Heat, Classical Gold Digital, Spectrum Radio, The Mix, AbracaDABra, Magic 105.4, Travel Now, Virgin Radio Classic Rock, Passion for the Planet, Capital Disney.

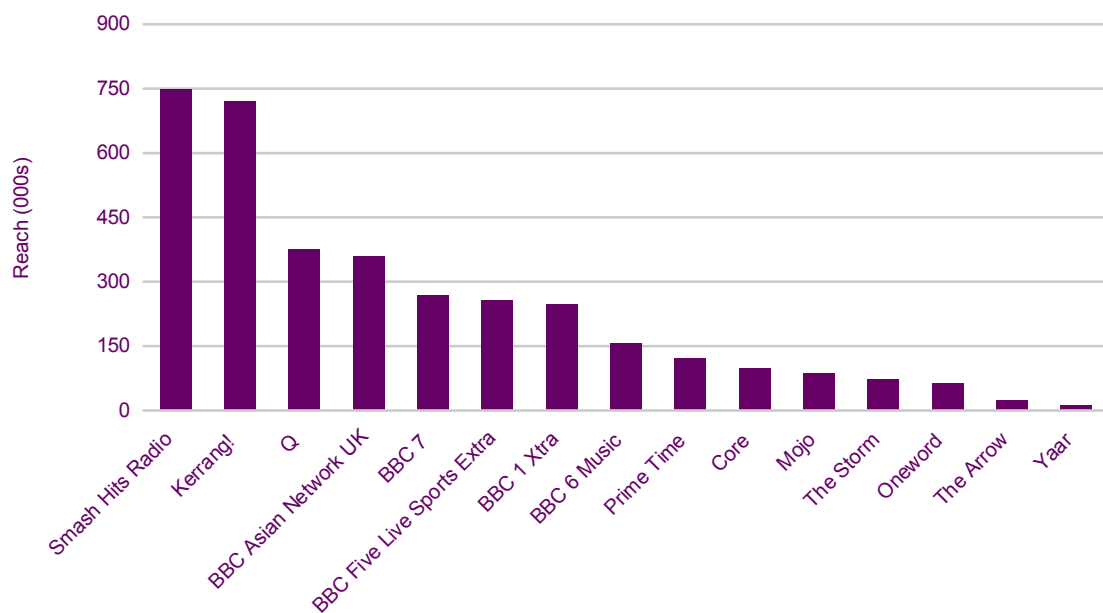
**Exhibit 15:** Analogue stations available on alternative platforms



Source: Ofcom

3.19 The chart below shows the weekly reach of each BBC service and of leading commercial services for the last quarter of 2003.

**Exhibit 16:** Weekly audience reach of BBC and leading commercial services



Source: RAJAR

3.20 Overall, it seems that the BBC's new services have not been as successful at winning audience share as was expected given their relatively large budgets.

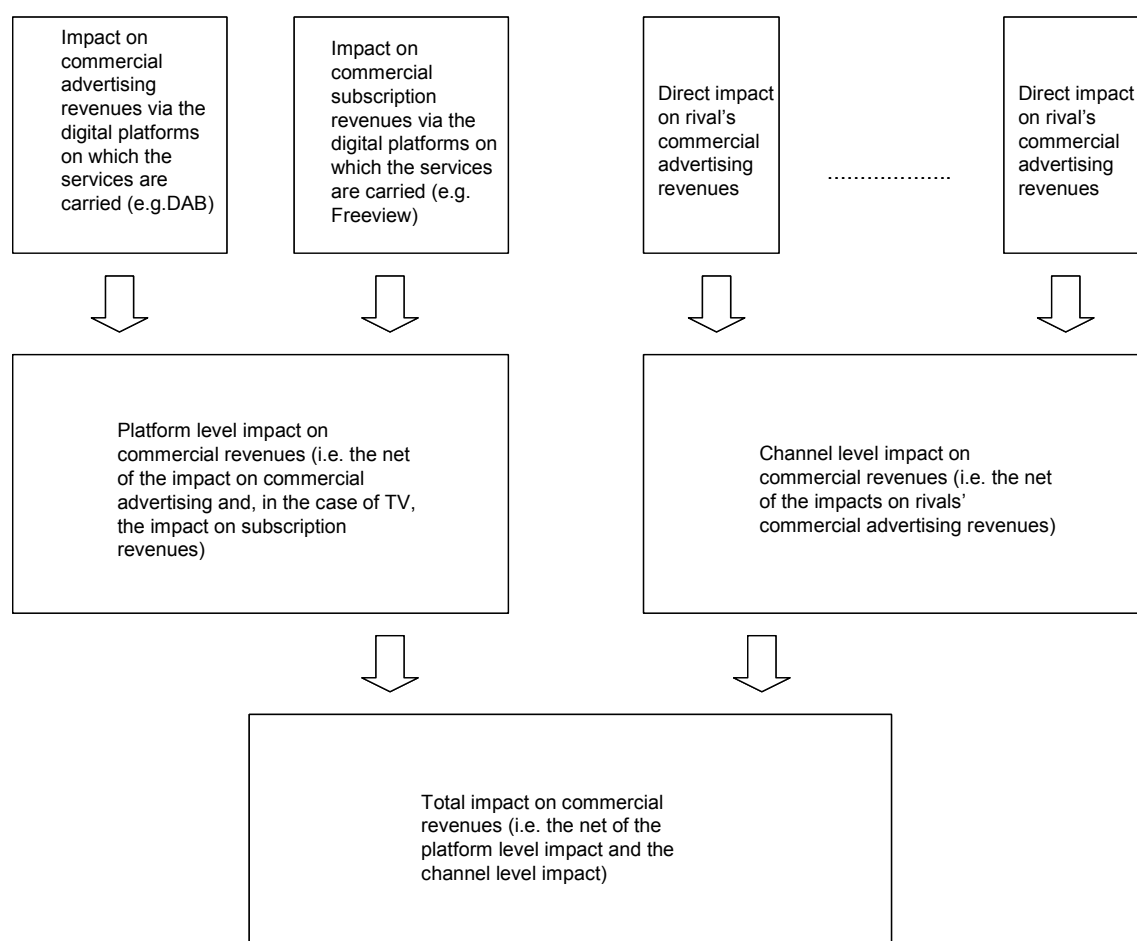
## 4. Our approach

- 4.1 This section looks at the way in which the BBC assessed the impact of its new services on the market, sets out the key points made in submissions to the independent reviews and concludes by explaining the approach we have taken to the assessment of market impact.

### BBC assessment of the market impact of the BBC's new services

- 4.2 An assessment of the market impact of the BBC's new radio and TV services was commissioned by the BBC from O&O. The approach taken by O&O was to focus on the issue of the impact of the new services on the revenues of rival channels and stations. O&O calculate the new services' impact via the digital platforms on which they are carried – i.e. the impact of DTT and digital radio on commercial revenues – and then calculate the direct impact of the new services on their rivals' revenues. These two effects are then combined to give a single number for the total market impact. O&O also look at the distinctiveness of the new services' and their financial contribution to the creative base. This approach may be represented graphically as follows:

**Exhibit 17:** Flow chart of the steps involved in O&O's calculation of the impact of the BBC's new services on commercial revenues



Source: Ofcom

- 4.3 O&O's view is that that by driving digital broadcasting, the new services have increased (and will continue to increase) advertising revenues to commercial operators (and, in the

case of TV, have not reduced subscription revenues). O&O attribute half of the overall digital benefit to the BBC's new services on the grounds that the BBC has been a key driver of digital broadcasting. Although the new services have a specific negative impact on the advertising revenues of the BBC's rivals, the financial benefit conferred by the BBC's contribution to digital broadcasting tends to outweigh this loss of income. O&O use their estimates of the revenue impact to gauge the effect on "choice".

4.4 Our detailed assessment of the O&O approach is contained in annex A.

#### *Impact on commercial TV revenues*

4.5 In TV, O&O find that

- the main impact of the BBC new services at the platform-level is through Freeview and that DTT's growth has been positive for commercial operators (i.e. an estimated range of -£1.7m to +£20.5m not taking into account transmission costs<sup>11</sup>). This is because subscription fees are unaffected while advertising revenues have increased. The BBC new services are credited with half of this benefit from Freeview. However, transmission costs of -£20m make the platform level effect negative in the short term. This effect becomes positive over time as the advertising benefit grows.
- O&O find that the specific channel-level impact on rivals' advertising revenues is negative (i.e. an estimated range of -£3.8m to -£9.4m).

#### *Financial impact on TV rivals via effect on platforms*

4.6 O&O consider that the financial impact of Freeview on subscription revenues is largely neutral (i.e. -£3m to +£4.5m). This is because very few of those taking up Freeview were going to take up an alternative digital platform – Freeview penetration has been additional to rather than in place of digital pay TV take up. Also, O&O assert that Freeview has enhanced the bargaining power of basic tier thematic pay TV channels giving them the opportunity to secure limited subscription fee increases. Finally, O&O assume Freeview has encouraged people to upgrade to basic tier pay TV.

4.7 O&O estimates that "the...net advertising impact of the BBC service's role in helping Freeview penetration is positive"<sup>12</sup> – it is +£1m to +£16m. This conclusion is based upon the net gains generated by the increase in commercial impacts associated with additional digital homes from Freeview outweighing the net losses as audiences are lost by pay TV and terrestrial channels. O&O argue that:

- TV advertising revenue has been raised by the extra viewers for Freeview's thematic channels (i.e. this increases advertising revenues for channels on DTT), and the substitution of pay-TV for DTT homes boosts ITV1, C4 and Five, which achieve a higher viewing share in Freeview than pay-TV homes.
- TV advertising revenue has been negatively impacted by the loss of viewers and advertising revenue for thematic pay TV channels on cable and satellite (i.e. for every Freeview home that replaces a pay TV home on one of these other platforms) and the reduced viewing share for ITV1, C4 and Five in DTT homes relative to five-channel analogue homes.

4.8 However, this advertising revenue benefit has to be weighed against extra transmission costs of -£20m for channels on Freeview which means that the total impact of the BBC's new services via Freeview is slightly negative (i.e. +£0.5m to -£21.7m). Over time, O&O

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<sup>11</sup> Or +£0.5m to -£21.7m when transmission costs are taken into account.

<sup>12</sup> O&O TV Report, p.64

anticipate that the BBC's new channels will have a greater positive effect on commercial rivals as the advertising benefit to them from Freeview grows.

4.9 O&O attribute half of the financial benefit from Freeview to the BBC's new services because evidence suggests that the BBC's new services have been the lead driver of Freeview growth and consumer research into Freeview households' attitudes towards pay TV and their socio-demographic profile relative to pay TV homes suggests the BBC new services have been pivotal to Freeview growth.<sup>13</sup>

4.10 O&O also find that the BBC new services are investing around £150m in new UK programming which will have a significant benefit for the creative base in TV.

**Exhibit 18: Steps in the calculation of O&O's estimate of impact via platform effects**

Effect	Impact	Attributable to the BBC
Reduced pay TV penetration	<ul style="list-style-type: none"> <li>O&amp;O assume Freeview was taking 1 to 2% from pay TV or 250-500,000 subscribers:</li> </ul> <p>-£15m to -£30m</p>	<ul style="list-style-type: none"> <li>BBC new services are 50% responsible for Freeview take-up:</li> </ul> <p>-£7.5m to -£15m</p>
Increased leverage with pay TV platform	<ul style="list-style-type: none"> <li>Extra 10p per month across all 80+ basic channels or a 2% increase in payments:</li> </ul> <p>+£12m</p>	<ul style="list-style-type: none"> <li>BBC new services assumed to be 50% responsible for Freeview take-up:</li> </ul> <p>+£6m</p>
Potential future upgrade of Freeview home to pay TV	<ul style="list-style-type: none"> <li>10% of homes assumed to be interested in potentially upgrading to pay TV in future after taking Freeview or 200,000 homes:</li> </ul> <p>+£12m</p>	<ul style="list-style-type: none"> <li>BBC new services assumed to be 50% responsible for Freeview take-up:</li> </ul> <p>+£6m</p>
<b>Subscription income impact via Freeview</b>		-£3m to +4.5m
Lost thematic pay TV advertising revenue	<ul style="list-style-type: none"> <li>Substitution leads to loss of 250-500,000 subscribers worth about a loss of -£12m to -£25m per year but due to an elasticity of -2.5:</li> </ul> <p>-£5m to -£10m</p>	<ul style="list-style-type: none"> <li>BBC new services assumed to be 50% responsible for Freeview take-up:</li> </ul> <p>-£2.5m to -£5m</p>
Benefit to networks of Freeview homes rather than pay TV homes	<ul style="list-style-type: none"> <li>Substitution to Freeview from pay TV of 250-500,000 homes worth a gain to networks of +£5m to +£10m per year due to the fact that the networks get an extra 15% share points in Freeview homes. However, taking into account an elasticity of -2.5 this amounts to:</li> </ul> <p>+£2.5m to +£5m</p>	<ul style="list-style-type: none"> <li>BBC new services assumed to be 50% responsible for Freeview take-up:</li> </ul> <p>+£1.3m to +£2.5m</p>
Harm to networks from Freeview rather than 5 channel analogue	<ul style="list-style-type: none"> <li>Freeview gains 1.8m homes where networks have 8% less share compared to analogue which amounts to a loss of -£45m or -£18m when elasticity is taken into account. When the 50% tax rebate to ITV and no share loss to Five is factored in this amounts to:</li> </ul>	<ul style="list-style-type: none"> <li>BBC new services assumed to be 50% responsible for Freeview take-up:</li> </ul> <p>-£6m</p>

<sup>13</sup> O&O TV Report p.63-64

	-£12m	
Benefit to thematic channels on analogue	<ul style="list-style-type: none"> <li>Freeview gains 1.8m homes where thematics have 10% extra share compared to pay TV which amounts to a gain of +£37m. When elasticity is taken into account this amounts to:</li> </ul> +£22m	<ul style="list-style-type: none"> <li>BBC new services assumed to be 50% responsible for Freeview take-up:</li> </ul> +£11m
<b>Advertising income impact via Freeview</b>		+£1.3m to +£16m
Transmission costs		-£20m
<b>Adjusted Freeview advertising income impact</b>		-£18.7m to -£4m
<b>Total revenue impact via Freeview</b>		-£21.7m to +£0.5m

Source: O&O

### Direct financial impact on TV rivals

4.11 In assessing the specific impact on near rival channels, O&O estimate that the direct impact on advertising revenues is likely to be small i.e. -£3.8m to -£9.4m. They give two reasons for this. First, the new services have only made small incremental audience share gains since launch – they cannot, therefore, have had a dramatic impact on their commercial rivals. Second, the elasticity of advertising demand<sup>14</sup> in the UK is close to one i.e. in response to a loss in share to the BBC and hence a reduction in commercial rivals' advertising 'impacts', price tends to rise proportionately, meaning that advertising revenues may not be greatly reduced.

4.12 Taken together with the large positive impact of the BBC's new channels via Freeview, however, O&O find that this negative channel-level impact means that the BBC's new services have delivered a net revenue loss (i.e. between -£3.3m to -£31.1m) to the commercial sector. O&O argue that this effect becomes positive over time as digital take-up continues and transmission costs are overcome by increased revenues due to digital TV growth.

#### Exhibit 19: Steps in the calculation of O&O's estimate of direct channel level impact

Methods	BBC 3	BBC 4	CBBC	CBeebies	Total
<ul style="list-style-type: none"> <li>use all audience share taken by BBC service from rivals in the overall advertising market</li> <li>apply single market elasticity of -1.7</li> </ul>	-£1.2m	-£0.9m	-£1.9m	-£1.2m	-£5.2m
<ul style="list-style-type: none"> <li>use all audience share taken by BBC service in separate network and thematic advertising markets</li> <li>apply different elasticities – a network elasticity of -1.7 and a thematic elasticity of -2.5 – depending</li> </ul>	-£1.4m	-£0.9m	-£2m	-£1.4m	-£5.7m

<sup>14</sup> To calculate the impact on advertising revenue of a change in audience share it is necessary to make an assessment of what will happen to the price of advertising impacts when the quantity supplied changes (i.e. elasticity). When advertising funded channels lose audience share, their supply of impacts falls in equal proportion. If the price of spot advertising remained constant, this would lead to a proportionate decrease in advertising revenues. If the price of advertising were to increase, then this would reduce to some extent the impact on revenues. The (own price) elasticity of demand relates changes in the price of spot advertising to the quantity of impacts (and vice versa).

on where the audience share has been taken from					
<ul style="list-style-type: none"> <li>• use demographic audience share taken by BBC service in separate demographic advertising markets</li> <li>• apply demographic elasticities – a 16 to 35 year old advertising elasticity of -3 and a children's advertising elasticity of -1.25 – depending on where audience share is taken from.</li> </ul>	-£4m	-£2m	-£1m	-£0.7m	-£7.7m
Range	-£1.2m to +£4m	+£0.9m to +£2m	+£1m to +£2m	+£0.7m to +£1.4m	-£3.8m to +£9.4m

Source: O&O

### Impact on commercial radio stations

#### 4.13 In radio:

- O&O quantify the benefit to commercial radio from the growth of digital radio platforms as +£9m per year. The BBC new services are assumed to be 50 per cent responsible for this benefit i.e. +£4.5m a year
- This benefit more than compensates for the negative station-level impact on advertising revenues of the BBC's commercial rivals of -£1.6m.

### Financial impact on radio rivals via effect on platform

4.14 The total economic benefit of +£9m in advertising revenue from digital radio estimated by O&O is broadly in line with the expectations of the commercial sector. This sum derives mainly because commercial radio represents a greater share of available choice on digital radio and digital take-up therefore increases commercial radio's share of listening. This raises commercial stations' advertising revenues.

4.15 Half of this benefit is attributed to the new BBC services – the rationale is as follows. The BBC's new services capture 18 per cent of listening to new digital services. This figure is then scaled up to 50 per cent because the BBC has played a key role in the development of digital radio. The BBC's cross promotion of DAB and digital radio is specifically cited.

### Direct financial impact on radio rivals

4.16 O&O assess the specific negative impact of the new radio stations on rivals' advertising revenues to be around -£1.6m. For some commercial digital radio services, the net financial impact may be slightly negative (e.g. Oneworld, Yaar and Sunrise). However, according to O&O, "in no case has the presence of a BBC service been likely to be the only or even prime determinant of commercial success or failure".<sup>15</sup>

### Combined impact

4.17 O&O estimate that this broad benefit from the BBC's contribution to digital radio up-take outweighs the specific negative impact of the BBC's new services on rival services giving a net benefit of +£2.9m. O&O conclude that the BBC's new radio services have enhanced choice.

<sup>15</sup> O&O Radio Report, p7.

**Exhibit 20:** Summary of O&O's calculation of the impact on commercial revenues

BBC Service	Impact on overall commercial digital economics	Direct cash flow impact on rivals	Total
BBC 6 Music	+£750,000	-£300,000	+£450,000
BBC 7	+£500,000	-£150,000	+£350,000
BBC 1 Xtra	+£1m	-£500,000	+£500,000
BBC Asian Network	+£750,000	-£500,000	+£250,000
BBC Five Live Sports Extra	+£1.5m	-£150,000	+£1.35m
Total	+£4.5m	-£1.6m	+£2.9m

Source: O&amp;O

**Ofcom view**

4.18 Our assessment of the O&O approach is that it is based on a number of assumptions that are frequently not verified (or verifiable) and that it tends to favour the BBC where there is any ambiguity. It is also the case that only the incremental impact of BBC 3 and BBC 4 over BBC Choice and BBC Knowledge has been assessed rather than the full revenue impact of the services on commercial rivals. However, O&O also make a number of good points and raise real issues. Their analysis therefore warrants consideration. We consider O&O's analysis in more detail in chapter 6 of this report and in the Annex.

**Responses to the independent reviews of the BBC's new services**

4.19 Despite the BBC's view that its new services have had a relatively benign impact on the market, submissions received by the independent reviews argue that commercial operators' revenues and viability are being threatened by the BBC's new services.

4.20 Submissions from the TV industry made the following main points:

- the output of the BBC channels had diverged from their original remits. Some submissions highlighted evidence that there had been a general reduction in factual programming and UK originated content, especially at peak times (e.g. in the children's TV market).
- respondents felt that these shifts in the output and target demographics of the BBC new services were causing significant overlap with the commercial networks' content. This had serious financial effects on commercial enterprises. In addition, submissions referred to a perceived policy within the BBC of aggressive programme scheduling at peak viewing times and during holiday periods.
- Concerns were also expressed about the BBC's competitive bidding for commercially attractive programmes, insisting on exclusivity clauses in contracts. Respondents claimed this practice had inflated programmes prices. There were also concerns over whether budgets for the new BBC services were appropriate.



- The BBC's cross promotion of its new services was challenged on the grounds that some commercial networks are restricted from cross promoting in the same way by Ofcom's rules.
  - Some submissions doubted the BBC's claims regarding the extent to which the BBC's new channels had driven digital TV take-up.
- 4.21 Overall, respondents called for better monitoring of BBC output, more transparent data, clearer channel conditions, and firmer governance arrangements.
- 4.22 Submissions from the radio sector were supportive in general of the BBC's approach towards digital radio and remarked that the industry was being actively improved by the BBC's efforts. The BBC's new radio output was recognised as helping drive DAB take-up and in most cases as distinctive.
- 4.23 However, some respondents raised concerns that:
- the new stations were catering for demographics already served by the commercial sector and although the BBC's stations were mostly distinctive, they were not sufficiently divergent from the commercial sector's output to be in the public's interest.
  - quotas should be set for UK independent radio production, to increase the percentage of speech output and to update the BBC's promises of performance for the stations.
- 4.24 Unanimously, submissions called for clearer defined format conditions for the BBC's stations, to ensure that the new stations did not drift into commercial territory and so they do not restrict future innovation in the commercial sector.

## Our approach

- 4.25 Our market impact assessment has been to focus attention on the impact of the BBC's new services on the ability of the market to meet the needs of consumers and citizens both now and in the future. Ideally, the BBC – as well as providing services which are valued in their own right – should help the market to work more effectively. Analysis of the financial impact of the BBC's new services is an input into this assessment. However, given our approach, no single number can capture the extent of market impact.
- 4.26 In this report, we have not looked at the intrinsic value of the services themselves to citizens or at whether they are providing value for money. The BBC helps meet the public interest objectives of UK citizens directly, through provision of the BBC's own PSB/public interest radio, and indirectly by helping the market better achieve public service goals. The independent reviewers are looking explicitly at the former type of public benefit when they assess whether the new services comply with their conditions for approval (i.e. question 1 for the review). As part of this analysis the independent reviews will also be looking at whether the new BBC services represent good value for money (i.e. are supplied as efficiently as possible). This report is limited to a market impact assessment.
- 4.27 We focus first on the effect of the new services on the competitive process itself. Assessing the impact of the BBC's new services on its competitors is part of our consideration of competitive effects. However, we need to go further and understand how this financial impact translates into market outcomes. There are several reasons for this:
- If we just stop at an assessment of the effect on the BBC's commercial rivals, we would need to take a view on what effects are 'good' for consumers/citizens and what sort are 'bad' (i.e. is a loss of £10m for ITV the same as a loss of £10m by Channel 4). This would be difficult and highly subjective.

- Focusing on the competitive process also avoids the risk of having to 'pick winners' (i.e. the services/operators assumed to continue into the future when future impact is assessed using these services/operators). We know that harm to the competitive process is likely to impede the ability of the market to deliver what consumers (and citizens) want, even if we do not know what this might be in future.
- In order to capture the impact of the BBC's activities on future investment and innovation it makes sense to use a dynamic framework. Competition provides strong incentives for incumbents and new entrants to find efficiency improvements and experiment with new services. If competition is undermined or uncertainty in the market makes investment and market entry more risky, innovation may suffer. Using competition analysis captures dynamic future effects as well as capturing the impact on the market as it presently stands.<sup>16</sup>

4.28 The counterfactual (i.e. alternative 'world' against which our comparisons are made) used in this report is a world without the BBC's new services but including the BBC. In other words, to isolate the impact of the BBC's new services, we have compared the world as it is (i.e. with the new services) to a hypothetical world without the new services. O&O have assessed the impact of the BBC 3 and 4 against a counterfactual which included BBC Choice and Knowledge – we think this understates the impact of the BBC's new TV services. However:

- in relation to the impact on digital broadcasting we have looked at the impact of the BBC as well as looking at the impact of the BBC new services alone, since the BBC would probably not back digital broadcasting to the same extent without the new services. The contribution of the BBC's new services to digital adoption may therefore be considered inseparable from the contribution of the BBC.
- for the sensitivity analysis undertaken by Spectrum, O&O's methodology was adopted, including the use of a counterfactual including BBC Choice and Knowledge. This is because we wanted to check how sensitive the O&O approach was to plausible adjustments in the key assumptions O&O made. However, we also 'grossed up' the impact estimates for BBC 3 and 4 to give a rough idea of the total impact of these channels – the impact was roughly double the level estimated by O&O.
- we have not assessed impact by considering how far (if it at all) the new services fall short of an 'optimal' market intervention by the BBC. For instance, we have not looked at whether the BBC could have set up different digital services to more efficiently achieve its goals nor have we assessed whether the BBC's support for DTT was the most efficient way of driving digital broadcasting. These questions are beyond the scope of our market impact assessment.

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<sup>16</sup> We note that Competition has been the focus of previous impact assessments of the BBC's services. Richard Whish's assessment of the BBC's Fair Competition Guidelines in 2001 looked at the implications of the Guidelines using competition analysis. The Graf review of the BBC's online services also focused on the impact of these services on competition.

## 5. The benefits of digital broadcasting

- 5.1 Digital technology is changing the face of broadcasting. In a fully digital world, broadcasting markets have the potential to be more effective and efficient at delivering what consumers and citizens want. In a digital world, the broadcasting market will tend to 'fail' less.
- 5.2 In assessing the impact of the BBC's new digital services, therefore, we first need to think about their impact on digital take up and hence on the overall shape of broadcasting. Although the BBC has contributed to the growth in other platforms, its main contribution to digital TV has been through Freeview. In radio, the contribution of the BBC's new services has been spread more evenly. However, their main impact has been via DAB as well as via DTT, since many people access digital radio on Freeview.

### The overall advantages and disadvantages of digital broadcasting

- 5.3 Digital technology has the potential to increase the scope for competition in the following ways:
- More broadcasting services can be transmitted using the same amount of spectrum. This frees up valuable spectrum and reduces barriers to the entry of new TV channels and radio stations. More channels and stations can therefore compete in the provision of broadcasting services. All this should have a positive impact on the choice of TV channels and radio services available to consumers and citizens.
  - New types of service are made possible by digital technology. There is greater potential for innovative interactive services (e.g. new gambling and auction services). It also becomes easier for successful services to develop offerings for other media types. For instance, digital music TV channels have crossed-over into broadcasting as digital radio services while video services (e.g. TV) can be broadcast to mobile devices using radio or TV spectrum (e.g. the recent tie-up between BT and GWR for the use of radio spectrum to deliver data services to mobiles).
  - Digital pricing and payment systems can improve the efficiency with which broadcasting transactions are conducted. Encryption and CA systems allow broadcasters to efficiently charge consumers directly for their TV (e.g. pay per view) and to adopt more sophisticated pricing policies that can better reflect the differing values that individual consumers put on programmes. Together with greater memory space in the STB, digital rights management systems also make it possible for operators to distribute other types of content (e.g. songs) direct to consumers on an on-demand basis.
  - On-screen electronic program guides ('EPG'), and other digital information systems (e.g. personal video recorders) improve the information available to consumers and allow operators to provide a more individual service better targeted at satisfying consumer desires.
  - The emergence of new digital platforms has increased the number of ways in which channels/stations can access consumers and vice versa. This has fostered inter-platform competition – we consider this impact in more detail below. Sky's on-going success combined with Freeview's rapid growth and a new 'FreeSat' offering will continue to spur inter-platform competition in future. Digital TV platforms are now also being used as delivery platforms for digital radio.
- 5.4 This is not to say that the digital broadcasting story is wholly positive for consumers and citizens. As Ofcom's PSB Phase I report acknowledges, market failure will still occur, and

competition problems may still arise in a fully digital world. PSB and other regulatory interventions will still be called for. Overall, however, digital broadcasting brings with it more benefits in terms of competition and efficiency, than detriments. To the extent that the BBC's new services have contributed to broadcasting's move from analogue to digital, they can be attributed credit for some of the overall benefit of digital outlined above.

### **The success of Freeview and DAB has enhanced inter-platform competition**

- 5.5 The BBC's main contribution to digital broadcasting has been via Freeview and to a lesser extent DAB. Both digital terrestrial platforms have enhanced inter-platform competition to some extent, adding to viewers' and channels' choice of delivery platform. However, since DAB is far less developed than DTT it is unlikely to have had the same impact yet. A tenth of all UK households now have DTT but there are only around half a million DAB sets in the market (i.e. 2.5 per cent of households).<sup>17</sup> Nevertheless, the prospects for DAB in future are encouraging.
- 5.6 It is our view that Freeview has had a broadly beneficial impact on competition in broadcasting. It has significantly expanded the number of ways of accessing TV channels (i.e. by adding a third viable multichannel platform) and radio stations. Its impact on competition between services for audiences has been more limited.
- 5.7 Freeview appears to be fostering inter-platform competition. Sky's decision to set up a free to view satellite service – "Freesat" – appears to be a defensive move designed to counter the competitive threat posed by DTT. There are two dimensions to increased inter-platform competition:
- Freeview may place some sort of competitive constraint on suppliers of pay-TV subscription packages like Sky. Freeview affords consumers an alternative way of accessing thematic channels. Greater inter-platform competition means viewers have a greater choice of ways of accessing thematic TV services.
  - Top-up TV is also likely to act as more of a competitive constraint in the pay TV market over the long run, especially in the supply of basic tier pay-TV packages. With the introduction of free services on satellite, it seems likely that the effectiveness of competition between Sky's basic packages and Top-Up TV might improve.
- 5.8 However, since the capacity for digital channels on the DTT platform is likely to be fully utilised until switchover, it should also be recognised that by favouring DTT, the BBC risks lessening channel competition by reducing the audience base for those digital platforms that allow competition between a large number of channels (i.e. satellite and cable).
- 5.9 The impact of DAB on competition in the radio market will flow once take-up begins to accelerate. The first signs of these benefits in radio are beginning to emerge.
- The wider distribution possible through DAB means that niche stations are potentially more economic for the commercial sector than in the analogue environment.
  - There are already signs that investment in programming is increasing as digital radio stations begin to reach a critical mass. For example Emap has recently announced increased investment in programming for its digital stations.
- 5.10 There is a slight risk that 'pump-priming'<sup>18</sup> of the DAB platform by the BBC could result in a technological choice which is not optimal for the UK.<sup>19</sup> Whilst clearly uncertain, there is a

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<sup>17</sup> In addition to DAB, some proportion of total digital TV households listen to digital radio and some listen to digital radio on the internet.

<sup>18</sup> Pump-priming is government action taken to stimulate the economy or part of the economy (e.g. increasing expenditure in a sector of the economy).

<sup>19</sup> It is worth noting that DAB is not the only potential digital radio platform. For example:

risk that the 'lock-out' of alternative, more efficient platforms could have a negative impact for consumers.

### **The importance of the BBC to Freeview and digital radio**

- 5.11 How much of the benefit of digital broadcasting should be attributed to the BBC? O&O attribute half of the growth of both DTT and digital radio to the BBC. Spectrum, commissioned by Ofcom to analyse the O&O report, considers that the BBC's contribution is likely to have been more limited than assumed by O&O.

### ***Digital TV has been driven by commercial players but the BBC has played a key role supporting Freeview***

- 5.12 The vast majority of the early take-up of digital TV in the UK can be credited to the efforts of the UK's pay TV platforms – particularly Sky. Part of the dramatic growth in digital TV resulted from the pay platforms converting their existing analogue subscriber bases to digital. It is worth noting that the BBC made all its digital services available on the earliest digital TV platforms (i.e. Sky) and the attractiveness of these services helped drive Sky's growth.
- 5.13 However, DTT is now by far the fastest-growing digital platform. A number of factors explain its success:
- Freeview tapped into a previously un-served demand for 'free' multichannel TV. Before the launch of Freeview, the demand for greater choice without a monthly subscription had not been catered for by other multichannel services. In a recent survey, two-thirds of Freeview customers indicated that the one-off payment and lack of contract were extremely important in choosing DTT.<sup>20</sup>
  - As demand for Freeview STBs has risen, boxes have been produced in ever greater volumes by more manufacturers, and prices have fallen. Growing confidence in Freeview has encouraged manufacturers to risk longer runs of DTT STBs. As the chart below illustrates, it was only when the average price of set-top boxes ('STB') began to fall below £100 (in the last 12 months) that uptake of Freeview began to accelerate.

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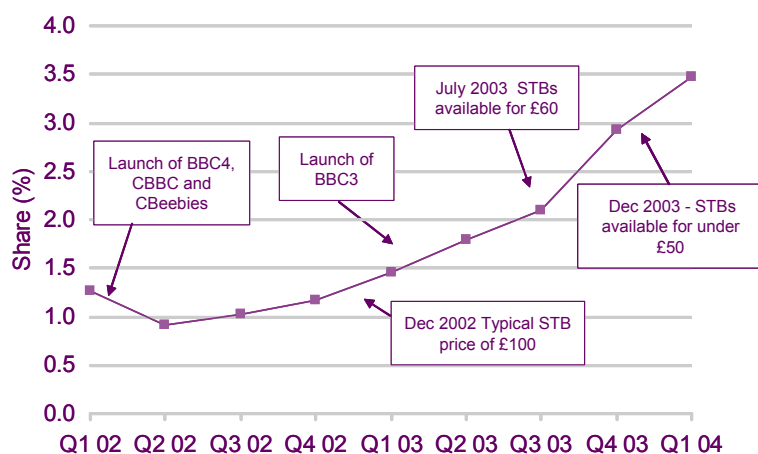
• digital radio services distributed via satellite (SDR) are beginning to take off in the United States with two operators, XM Radio and Sirius increasing their subscriber base to over 2m. Both services offer around 100 channels of advertising free music for a monthly subscription.

• in South Korea, the leading mobile operator, SK Telekom is due to launch a satellite-based DMB (Digital Multimedia Broadcasting) service, based on an upgrade to DAB. The service will offer CD quality audio channels as well as multimedia services such as video.

• the DVB-H standard is being developed to provide mobile broadcasting services, including video and audio. The standard has the potential to be two times more efficient than DAB for carrying audio and features much lower power consumption, enabling easier integration of the technology into portable terminals such as mobile phones.

<sup>20</sup> BBC/Dixon Group Survey March 2003.

**Exhibit 21:** DTT households (m)



Source: ITC/Ofcom, press coverage

- As demand for Freeview has grown, DTT STBs have also been distributed more widely and retailed more intensively. Research undertaken on Ofcom's behalf, indicates that advice offered to consumers by retail outlets has played a significant role in driving Freeview growth.

5.14 We believe that the BBC has made a significant contribution to Freeview's success.

- the BBC has lent credibility to DTT and played a central role in devising and implementing its growth strategy. This has given consumers confidence to invest in STBs and encouraged businesses to invest in new content services.
- The BBC's cross promotion of Freeview on BBC 1 and BBC 2 appears to have had an impact on Freeview take up and overall penetration.<sup>21</sup> Awareness of Freeview has risen from 58 per cent to 80 per cent over the last year.<sup>22</sup> The high viewing share of BBC 1 and BBC 2 in Freeview households suggests that DTT adopters have previously been heavy BBC viewers. On the other hand, the significance of the BBC's cross promotion should not be overstated. Commercial channels have also played a role cross-promoting Freeview.<sup>23</sup>
- Since extra channels are one of the key reasons for taking Freeview, it is highly likely that the provision of new digital content by the BBC has been an adoption driver for consumers. Recent consumer research identified the increased number of channels as being the most widely perceived benefit of Freeview, and of digital television in general<sup>24</sup>. The four new BBC services represent over a quarter of the extra channels on Freeview and receive around 6 per cent of viewing share in Freeview households. In addition, the BBC has consumer research which shows that the new digital BBC

<sup>21</sup> O&O TV Report, p.49

<sup>22</sup> Continental Research, The Spring 2004 Digital TV Report.

<sup>23</sup> For instance, ITV advertises Freeview on ITV 1, runs extensions of popular ITV 1 programmes on ITV 2 (e.g. pop idols) and co-ordinates (e.g. with the ITV News channel) scheduling to broaden the impact of major news, sports, or hit entertainment shows and features.

<sup>24</sup> The BBC's report on progress towards digital switchover reported that the greatest appeal of Freeview was the availability of additional channels without subscription; BBC, Progress towards achieving digital switchover: a BBC report to the Government, 26 April 2004, p.23 (GfK data; June 2003); also the DTI's recent assessment of consumer attitudes towards digital TV also found greater choice of channels to be the most widely perceived benefit of DTV DTI, Preliminary findings on consumer adoption of digital television, 7 Jan 2004, p.49

<sup>24</sup> BBC/Dixons Group Survey March 2003.



services were a significant factor in the purchasing decisions of many new Freeview customers.<sup>25</sup>

- It is important not to overstate the significance of the BBC's new services, however. Commercial channels and stations arguably add more to the choice on Freeview than the BBC. 17 of the 21 additional free-to-view channels<sup>26</sup> on DTT are commercial and these other channels are collectively more popular than the four BBC channels (i.e. 15.3 per cent collective viewing share).

**Exhibit 22:** Share of digital-only channel viewing in Freeview homes, Q1 2004 (%)



Source: BARB

5.15 Overall, it is our view that, although the precise impact is hard to quantify, the BBC can take a substantial amount of the credit for DTT's success since its relaunch. The BBC's new services have certainly pushed DTT take up much faster than if they were not there (in both radio and TV).

### ***The BBC has driven digital radio and DAB***

5.16 Digital radio is less developed than digital TV and DAB has enjoyed far less success than Freeview. However, DAB's recent growth (i.e. 176,000 sets sold in the run up to Christmas 2003) suggests it is about to take off and Freeview growth has made a significant contribution to digital radio.

5.17 A number of factors explain DAB's recent growth:

- The commercial sector has significantly added to digital radio listening. A substantial proportion of the additional choice offered by digital radio is down to the commercial sector. 72 per cent of the new stations available to the average DAB listener are provided by commercial stations, rising to 83 per cent for DAB listeners in London and 95 per cent for listeners on digital satellite (see below). Digital platforms have been used to re-broadcast analogue stations, previously only available to a small proportion of the population on a number of regional and local multiplexes e.g. Xfm is now available in over 17 local and regional DAB multiplex. Digital satellite and cable platforms have allowed commercial operators to broadcast local services on a national

<sup>25</sup> Ibid.

<sup>26</sup> Excludes pay-TV services operated by Top-Up TV

basis. New commercial digital stations and out of area rebroadcasts of commercial analogue stations account for a significant share (respectively 8 per cent) of overall digital listening.

- The commercial sector has also invested in the development of new digital radio content. Five new national radio stations, PrimeTime, Oneword, Rock, Core and Life are available on the commercial national DAB multiplex. Over 30 new commercial radio brands such as Capital-Disney, Panjab Radio and Urban Choice are present on local and regional DAB multiplexes.
- The DRDB's backing of DAB has culminated in wider distribution and more intensive retailing of DAB sets. Retailers have been placing substantial resources behind the promotion of DAB. The number of retailers stocking DAB terminals increased by over 400 per cent, from 600 to around 4000, between 2002 and 2003, with major chains including Asda, Boots, WH Smiths, Dixons and Comet beginning to stock the DAB products.
- Growing confidence in the DAB platform, has encouraged manufacturers to produce a range of low-cost DAB receivers. Between January and December 2003, the key period of growth for DAB, the number of receiver models available in the UK doubled from 29 to 61<sup>27</sup>. Commercial operators played a key role here. Digital One invested in the design and manufacturer of the Chorus DAB microchip used in these sets, which it claims kick-started the mass market for DAB receivers<sup>28</sup>.

5.18 The BBC has also played a key role:

- driving digital radio through its contribution to DTT (i.e. outlined above). Freeview's growth has significantly increased the number of people who can access digital radio. It has therefore contributed to the take-up of digital radio.
- the BBC's cross promotion of its digital radio services on TV has attracted consumers to both purchase DAB and to listen to digital radio over digital platforms. The BBC is the only organization promoting digital radio on TV.<sup>29</sup>
- The availability of new BBC digital radio content has increased digital radio adoption by providing unique content for digital radio. The new BBC services account for around 15 per cent of digital listening<sup>30</sup>.

5.19 As with digital TV, it is hard to put a precise figure on the influence of the BBC's new services. Our judgement is that the BBC played a key role in the early days of digital radio development but that, in view of the audience success of the commercial stations, it is probably now over-stating the BBC's influence to claim, as does the O&O report, that it is responsible for half of DAB growth.

5.20 In summary, we think it is difficult to calculate a precise figure that would accurately reflect the contribution of the BBC's new digital services to the benefits flowing from digital broadcasting, primarily because most of these benefits are dynamic. The BBC is likely to have played a bigger role driving the benefits flowing from Freeview than it has in digital radio. However some of the wider benefits from digital broadcasting would probably have emerged anyway, through the efforts of commercial operators such as Sky and Emap. We now turn to look at the more specific impact of the BBC's new services on commercial rivals.

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<sup>27</sup> DRDB

<sup>28</sup> Digital One response to the Ofcom consultation document on the future use of spectrum within VHF Band III p.3

<sup>29</sup> O&O TV Report, p.34

<sup>30</sup> O&O Radio Report p.17



## 6. Risks to competition

- 6.1 The presence of the BBC can help build demand for new types of service, reduce risks for others seeking to invest in digital broadcasting and increase competition for audiences. However, in certain circumstances, the BBC's presence can also negatively affect competition. It can threaten the viability of head-on competition in very small market segments by leaving insufficient audience for rivals or – perhaps more importantly – by making future entry or innovation too risky. In these niches, a small loss of revenue or a substantial increase in the risk faced by commercial operators may deter competition, delaying further development of promising new ideas and chilling prospects for future investment in certain activities.
- 6.2 We first look at the different estimates of the impact of the BBC new services on revenues of commercial rivals. We then look at the impact of the BBC new services on competition.

### Financial impact on commercial revenues

- 6.3 O&O undertook an extensive analysis for the BBC of the impact of the BBC new services on commercial revenue. We have reviewed this analysis, with the assistance of Spectrum. Spectrum used the same methodology as O&O but modified the assumptions used to test the sensitivity of O&O's results. In TV, O&O estimated the total impact on commercial revenues of the new BBC TV services to be between -£3.3m and -£31.1m p.a. In its revised analysis, Spectrum estimated the overall revenue impact to be around -£50.8m p.a. In radio, O&O's estimate of the revenue impact was +£2.9m p.a. while Spectrum's revised estimate was -£0.9m p.a.
- 6.4 The wide variance between the O&O and Spectrum numbers emphasises that this method of financial analysis is vulnerable to criticism that the results generated are entirely dictated by the assumptions made. If the results change substantially when plausible adjustments are made to the underlying assumptions, we need to treat the results with a high degree of caution.
- 6.5 In the Annex we go through the steps involved in the calculation of the revenue impact to assess the sensitivity of O&O's results. However, in this section we note the reasons for the differences between the estimates from Spectrum and O&O and comment on both the analytical approach and what it tells us about the impact on the market.

### TV revenues

- 6.6 O&O estimate the total impact on revenues of the BBC's new TV services to be between -£3.3m and -£31.1m whereas Spectrum's sensitivity assessment suggests the impact could be around -£50.8m. The difference between the O&O (i.e. neutral) and Spectrum (i.e. -£46m) estimates of the impact via Freeview can be explained as follows:
- Spectrum assume that more households taking Freeview were going to take pay TV i.e. 4 per cent of Freeview uptake was taken from Sky take up compared to O&O who assume that 1 to 2 per cent of Freeview households were lost to pay TV. In other words, Spectrum assume a greater degree of substitutability between the pay TV cable and satellite ('DTH') and DTT platforms than O&O suggest. This means O&O estimate the loss of subscription revenues to be between -£7.5m and -£15m whereas Spectrum's sensitivity assessment is -£20m. Similarly, Freeview's negative impact on advertising revenues is increased by -£3m.

- O&O claim that the BBC services have increased leverage over pay TV platform operators (e.g. Sky) but Spectrum disagree saying there has been no such increase. O&O estimate this to be worth +£6m in subscription income.
  - Spectrum are not convinced that Freeview would significantly increase the number of homes upgrading to basic tier pay TV whereas O&O consider this would result in a benefit to commercial operators of +£6m. Spectrum take this position because any potential boost to subscribers from the upgrade of Freeview homes to pay TV will be counterbalanced by the detrimental effects of DTT growth for both pay and free services in terms of higher churn, more spin-down (i.e. to lower value packages) and lost second STB subscriptions.
  - Also, Spectrum attribute less of Freeview's growth to the BBC's new digital services. O&O consider that half of the benefit from the growth of Freeview is down to the BBC's new TV channels whereas Spectrum attribute only 30 per cent of the Freeview benefit to these new services.
  - Finally, in analysing the impact of advertising elasticity, Spectrum use the advertising elasticities calculated most recently by Ofcom (i.e. -3.8 for thematic channel advertising and -1.4 for terrestrial network advertising)<sup>31</sup> whereas O&O use different elasticities (i.e. -2.5 for thematic advertising and -1.6 for terrestrial advertising). Using Ofcom's elasticities makes the impact of Freeview on advertising revenues slightly more negative.
- 6.7 In assessing the specific revenue impact on near rival channels, estimates of the direct impact on advertising revenues are relatively similar – O&O estimated the impact to be between -£3.8m and -£9.8m and Spectrum, using the elasticities provided by Ofcom, estimated the impact to be -£4.8m. The difference between these two estimates is based solely on the different elasticities used as described above. Both O&O and Spectrum assume that half of the BBC new services' impact came from thematic services and half from network services.
- 6.8 In addition, O&O only assess the impact of BBC 3 and BBC 4 over and above the share that BBC Choice and BBC Knowledge already had respectively (i.e. since their launches in February 2003 and March 2002 respectively). This means that part of the impact of these channels may not have been taken into account in the O&O calculations. Pro rating Spectrum's assessment of the impact of BBC 3 and BBC 4 up to reflect the total impact of each channel, we find that the impact doubles from -£4.8m to -£9.6m.
- 6.9 According to O&O, a -£2m impact on rival thematic channels (i.e. half the total impact mentioned above) would represent 1 per cent of current advertising revenues earned in total by thematic channels. Some channels suffer more than others as a result of the new BBC TV services but O&O estimate that no one thematic channel loses more than -£1m revenue (i.e. typically less than 8 per cent of revenues) and no major network (e.g. ITV, Channel 4 or Channel 5) more than -£2m.

<sup>31</sup> Ofcom recently undertook work in conjunction with David Hendry and Price Waterhouse Coopers estimating the price elasticity of demand for advertising on satellite and on terrestrial advertising. We found:

- a slightly lower elasticity for terrestrial advertising compared to previous estimates by Hendry. Our estimate of the short run terrestrial elasticity was -1.18 (i.e. very little substitutability given the annual contractual nature of the market). Our estimate of the long run elasticity was -1.44 (i.e. a greater level of substitutability where contractual arrangements constrain substitutability less). This means that in the long term a 10 per cent reduction in terrestrial advertising impacts (for e.g. Channel 4) would lead to a 7 per cent increase in the terrestrial price and net advertising revenue ('NAR') would fall by 3 per cent. This view is supported by preliminary findings from work being done on Phase II of the PSB review which shows that, when looking across countries, public TV spend does not mean lower advertising or subscription revenues.
- A high elasticity for multichannel advertising – this elasticity had not been estimated before. Our estimate of the short run elasticity for satellite advertising was -1.6 in the short run and -3.8 in the long run. This long run elasticity means that in the long term a 10 per cent reduction in multichannel impacts would lead to only a 2.5 per cent increase in satellite price and NAR would fall by 7.5 per cent. To the extent that the BBC new services have taken impacts from thematic channels, this higher multichannel elasticity means that the impact on multichannel NAR would be higher than that which O&O found.

- 6.10 The total impact on TV revenues therefore ranges from the O&O estimate of between -£3.3m and -£31.1m p.a. and the Spectrum sensitivity assessment of -£50.8m. Per channel, this impact is probably low for large operators but might be more significant for thematic channels since it represents a higher proportion of their total revenues.
- 6.11 While both estimates are subject to some uncertainty, and the Spectrum analysis probably represents a 'worst case' scenario, we consider it likely that the actual financial impact is more negative than O&O suggest.

### Radio revenues

- 6.12 In radio, O&O assess the overall impact on the revenues of commercial rivals to be +£2.9m whereas Spectrum adjust O&O's assumptions to arrive at an impact of -£0.9m.
- Spectrum did not adjust the assumptions underpinning O&O's assessment that the specific impact on commercial rivals is about -£1.6m.
  - Nor did Spectrum assess the sensitivity of O&O's assessment that the overall impact is about +£9.0m. However, O&O attribute the new BBC radio services with half of the extra commercial revenue from digital radio whereas Spectrum assessed the sensitivity of O&O's results to this assumption by assuming the new services are only responsible for 8 per cent of this benefit. O&O consider that because the BBC new radio services account for 18 per cent of listening to new digital services they are responsible for 50 per cent of the benefit from digital radio. To get 8 per cent, Spectrum scale up by the same amount but start from 3 per cent because this is the proportion of total digital listening accounted for by the new services.

**Exhibit 23:** Sensitivity of assessments of impact on commercial revenues

	New BBC TV services	New BBC Radio services
O&O estimate	-£3.3m to -31.1m p.a.	+£2.9m p.a.
Spectrum sensitivity	-£50.8m p.a.	-£0.9m p.a.
Reasons for differences	<ul style="list-style-type: none"> <li>• O&amp;O assume Freeview was taking less growth from pay TV platforms (i.e. 1-2%) than Spectrum (i.e. 4%). This accounts for £8m of the difference between the Spectrum revised estimate and O&amp;O's most negative estimate.</li> <li>• O&amp;O assume Freeview gives channels more leverage with pay TV platforms – Spectrum do not. This accounts for £6m of the difference between the Spectrum revision and the O&amp;O estimate.</li> <li>• O&amp;O assume Freeview will increase homes upgrading to pay TV – Spectrum do not. This accounts for £6m of the difference between the Spectrum and O&amp;O estimates.</li> <li>• O&amp;O assume the BBC new services are responsible for 50% of the benefits from Freeview – Spectrum assume 30%. This reduces both the costs and the benefits attributed to the BBC's</li> </ul>	<ul style="list-style-type: none"> <li>• O&amp;O assume the BBC new services are responsible for 50% of the benefits from digital radio – Spectrum assume 8%. This accounts for the entire 3.8m difference between the Spectrum and O&amp;O estimates.</li> </ul>

	<p>new services – it does not add enormously to the difference between the O&amp;O and Spectrum estimates.</p> <ul style="list-style-type: none"> <li>• O&amp;O use different elasticities (i.e. -1.6 and -2.5) from Spectrum (i.e. -1.4 and -3.8) – Spectrum used Ofcom's estimates. This increases the differential between the O&amp;O and Spectrum estimates but is far less significant than the factors outlined above.</li> </ul>	
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Source: O&O, Spectrum

6.13 We consider that on balance the BBC will have had more of an impact on digital radio growth than the lower Spectrum figure suggests, so the overall impact is likely to be somewhere between the two estimates.

### The specific competition effects of the new BBC TV stations

6.14 It is unlikely that the BBC's new services have driven, or will drive, any established TV channels out of business. Although it is clear that the BBC's new services have impacted upon the advertising and (in the case of TV) subscription revenues of commercial operators to some extent, it is unlikely that their presence has been directly responsible for the exit of any commercial rivals. This is largely because the new BBC services have taken so little market share.

6.15 However, the competitive effect of the BBC digital services is likely to be more subtle than direct impacts on the commercial viability of established channels. In planning their future activity, commercial broadcasters can be expected to take account of the influences of the BBC digital services on the audience available to the commercial sector in small niches, and on how hard — e.g. in terms of programming and promotional expenditure — it will be for commercial providers to win audience through the provision of particular types of programming.

6.16 It is possible that the BBC digital services will affect the types of new channels that enter digital TV and radio markets, the programming and scheduling mix adopted by established channels and the extent to which they are prepared to experiment with new content or services. Commercial operators may be keen to avoid head-on competition against BBC services, especially because competition from the BBC services is likely to be especially "tough" compared to competition in a non-BBC counterfactual (e.g. due to the higher budgets available for BBC programming).

6.17 The BBC services may chill competition and innovation around the areas of content on which they are focused.

- The deterioration in cashflows for the BBC's close rivals, may have reduced the ability of commercial channels to invest in more risky productions and increased the propensity to show acquired and repeated materials. The greater use of cheaper programme sources, formats and genres among similarly positioned channels may at least partially reflect the negative effect of the BBC channels on advertising and subscription revenues. The BBC's new services may have also therefore reduced the amount of more public service orientated programming produced by commercial rivals, in favour of a more commercial schedule.

- Similarly, channels which had a similar positioning (e.g. in terms of service characteristics and target demographics) prior to the launch of the new BBC channels may shift their focus away from these areas, in order to avoid competing head-on with the superior resources and cross-promotion of the BBC channels.
- 6.18 The extent to which new BBC services will deter competition and innovation depends upon several issues.
- The size of the market niche and more importantly the diversity and robustness of demand in that niche. In very small market niches the presence of the new BBC services may leave so little audience that the viability of any commercial rival would be extremely limited. This may be the case where the market segment is very new and hence small. There may be more scope for competition and innovation in future but any business trying to serve the segment in the present would be extremely marginal.
  - The scale of the BBC's investment relative to the potential size and contestability of each particular market segment. There is a large disparity between the resources allocated by the BBC to its four new channels and the budget available to similar digital-only channels.<sup>32</sup> The combined programming budget for the new BBC digital channels was nearly £171m in 2003 – which exceeds Channel 5's budget – with BBC3 alone spending £96.5m. BBC 4's budget was £30m pa, CBeebies budget was £15m a year while CBBC's budget was £26m a year. The budget of one of the BBC's new digital TV channels is likely to far outstrip the budget of any digital-only channel, potentially discouraging them from direct competition for audiences with the BBC service.
  - the risk that the BBC's new services will grow their audience by pursuing more commercial audiences. The BBC might be tempted to increase ratings by using more popular content (e.g. acquisitions from the US), scheduling more 'commercially', mimicking the successful programming or formats of its competitors, cross-promoting on TV, online and radio, moving successful programmes across its network and placing more 'value' onscreen than is implied by a service's budget.<sup>33</sup> This may reduce potential returns for the BBC's competitors and thereby deter investors from setting up new stations or experimenting with different types of programming. Innovative new projects could be shelved and rivals may be driven to even more commercial scheduling/programming. The question is whether there is sufficient ambiguity in the wording of the remits to allow the BBC to adopt a more commercial strategy should it in future choose to do so.
  - the risk that the BBC's new services will drive up the programming costs for commercial rivals by bidding up the price of popular acquisitions. This is more likely where the BBC has a large budget relative to its rivals and is seeking to grow its audience by adopting a more commercial strategy.
  - The risk that the BBC's new services might limit access to key rights in such a way that commercial rivals are put at a competitive disadvantage. For instance, limitations on rivals' access to the BBC's speech archives may be due to the presence of BBC 7 in speech radio segment.
- 6.19 The BBC's new services compete with output on the network channels but we have focused on competition in the provision of niche channels because it is here that we think the BBC's presence is probably having its largest impact. In TV, the main areas of concern raised by the submissions were in the provision of children's TV channels and in relation to

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<sup>32</sup> The scale of the budget of the BBC channels relative to their performance raises questions surrounding the value for money they offer. This expenditure translates into an average spend per viewer hour across the four BBC channels of over six times that recorded by Channel 5, and five times the level realised by ITV1.

<sup>33</sup> For instance, by spreading costs across its different services and attracting key talent to work across the entire BBC portfolio.



arts TV channels.

***A key concern has been in the segment for children's TV channels***

6.20 CBeebies is a thematic channel focused on pre-school children while CBBC is directed at children between 6 and 14. There are three channels other than CBeebies serving pre-school children – Nick Jr, Disney Playhouse and Boomerang. 13 commercial channels focus on CBBC's target audience of 6-14 year-olds. None of the terrestrials can offer all day access to children's programming.

6.21 At present, the children's channels available on digital satellite and cable largely show US-originated content, with more cartoons than on the BBC children's services. O&O contend that "when [CBBC and CBeebies] do show animation it is much more likely to be UK originated. Each has a significant proportion of UK orientated educational programming unlike their near rivals".<sup>34</sup>

6.22 However, submissions to the independent reviews suggested that the differentiation between the BBC services and the offerings of their commercial rivals appears in certain areas to be limited and may also be declining. In particular, it was suggested that CBBC was increasingly offering more popular 'commercial' programming such as cartoons:

- David Graham Associates ('DGA'), writing on behalf of Nickelodeon, expressed unease that CBBC was moving its output more towards the output transmitted on the commercial networks. The Satellite and Cable Broadcasting Group ('SCBG') who represent over 16 major channels and networks reiterated these points stating that there had been a:

"significant and consistent decline in the proportion of factual programming in the CBBC schedule since launch... A greater proportion of acquired programming if scheduled in peak hours on CBBC... Greater divergence from the scheduling policy on CBBC in holiday periods with a correspondingly high market impact"

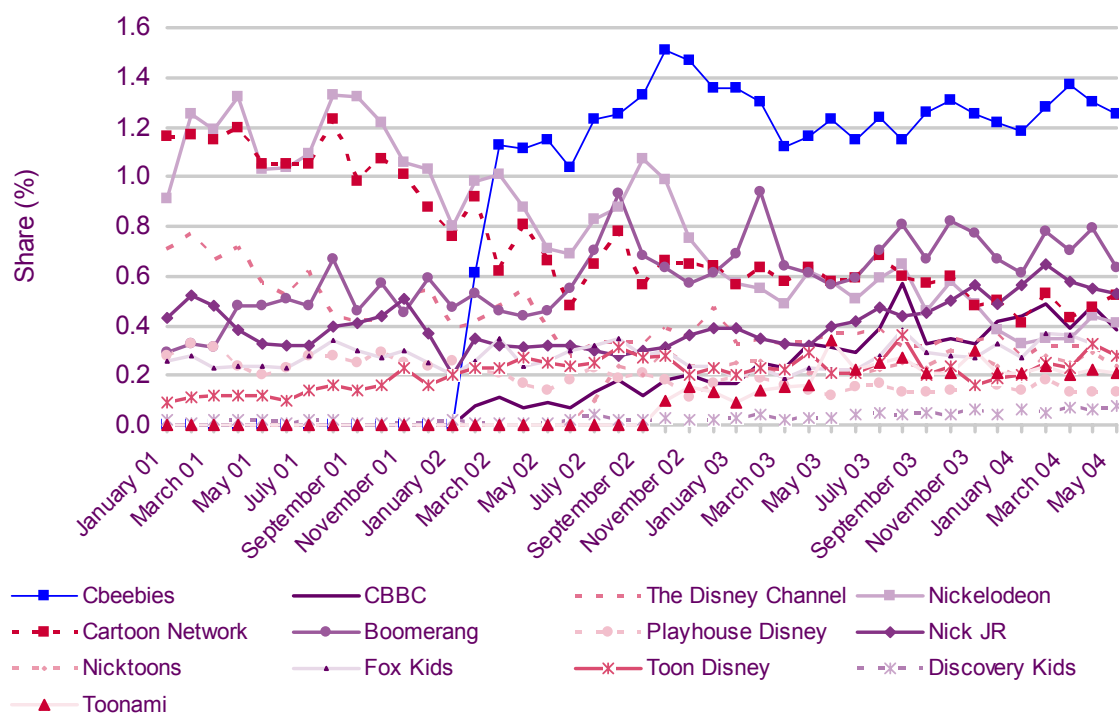
- DGA also undertook some work showing how the revenue impact of CBBC and CBeebies could be estimated econometrically. This analysis was received after Ofcom had finalised its report and is therefore considered in detail by the independent review rather than in this report.
- ITV indicated that CBeebies and CBBC have therefore been out bidding commercial broadcasters for foreign (mostly US) productions and have therefore ended up paying inflated market prices. ITV considered this a waste of licence fee money since this content would otherwise be acquired and broadcast by commercial rivals at a lower cost. ITV stated:

"The BBC has tended to acquire exclusive rights from large US studios for productions that have already been funded and are commercially attractive to other operators. Examples of this include *Stuart Little* and *Astro Boy* from Columbia Tristar"

6.23 CBBC and CBeebies have grown from a standing start to having 1.3 and 0.4 per cent all day multichannel audience shares respectively. From the chart below, it appears that the CBeebies and CBBC may have taken market share from their rivals. Since the BBC children's channels commenced operation, very few commercial children's channels have really enjoyed significant growth in market share whereas market leaders Nickelodeon and Cartoon Network appear to have lost share. This trend may also be due to other factors such as the collapse of ITV Digital, changes in the BARB panel and the take-off in Freeview which does not include these channels as part of its offering.

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<sup>34</sup> O&O TV Report p.4

**Exhibit 24:** Audience shares of children's thematic channels in multichannel homes

Source: BARB

- 6.24 The BBC's competitors are well-funded, largely multinational offerings serving a relatively large market – their viability is not at present threatened. However, as noted above, the BBC's impact on market niches is likely to be more subtle than driving competitors out of business.
- 6.25 CBBC's and Cbeebies' relatively large budgets and use of commercial strategies may dampen prospects for future entry by new competitors and might erode incentives for commercial channels to invest in more ambitious or expensive programming. The size of CBBC's budget in particular suggests that there is a real risk it could drive up programming costs for its commercial rivals if it pursues more popular acquired programming (e.g. top cartoons) in future.<sup>35</sup> The submissions provide some evidence that this may already have occurred.
- 6.26 The presence of the BBC's children's services may also have reduced the likelihood that commercial kids channels will begin producing UK originated content and tailoring their schedules to UK children's audiences. The supply of original programming involves a considerable degree of experimentation. If Cbeebies and CBBC posed less of a threat this might improve the ability of the market to "select" those innovative ideas that appeal best to UK children's audiences.
- 6.27 On balance, we consider there are market impact risks in the area of children's channels, particularly that CBBC and Cbeebies might drive up the costs to their rivals of acquiring popular children's programming (e.g. top animation) in future.

<sup>35</sup> We are aware that large parts of commercial children's channels' schedules are filled with programmes from their parent' archives and that much of the programming on the new BBC children's channels was acquired for BBC 1 or 2 before being moved across to the children's channels.

*The only issue raised in respect of BBC 4 concerns its impact on Artsworld*

6.28 BBC 4 is a mixed genre channel focused on arts (i.e. 40 per cent cultural, music and performance) and factual (i.e. 30 per cent documentary, history and science) programming. Other arts/factual focused channels include the History Channel and UK History, while there are also two specialist art-themed premium pay services:

- Artsworld broadcasts for 10 hours a day and over 90 per cent of its output is arts and classical music programming acquired from a wide variety of sources, both in the UK and overseas. Its output ranges across all of the visual and performing arts and includes around 12 hours a week of first-run programming new to UK audiences. BBC 4 appears to have a similar socio-demographic appeal to Artsworld<sup>36</sup> – appealing to those in their late 30s and 40s with a strong skew to ABC1s – although its schedule is quite different.
- Performance, a basic pay channel also broadcasts a range of output, focusing more on recordings of performances of classical music.

6.29 During 2002 it was reported that shareholders refused to put additional funds into Artsworld because of stiff competition from BBC 4. John Hambley, Chief Executive at the time, emphasised that the launch of BBC 4 had “affected our shareholder’s view of the long-term viability of the channel”. He added that “you can bet your life that investors are going to be deterred from getting involved in similar ventures in the future”.<sup>37</sup> Although Artsworld continues to operate this has largely been due to the purchase of a 50 per cent equity stake by Sky.

6.30 Artsworld indicated in its submission it considers BBC 4’s impact on its business to have been “catastrophic”:

“Digital Classics TV has gone out of business. The Performance Channel has cut its budgets to almost zero and become part of a shopping channel. And in our own case, our channel has been teetering on the brink of extinction”

6.31 Artsworld showed concern about the loss of revenue from the presence of BBC 4 and the way this had impacted on its capacity to produce original programming:

“...before BBC 4’s launch, Artsworld had a programme budget of approximately £5 million (more than many other commercial digital channels), and commissioned more new arts and culture programmes per year – all from UK independent producers – than BBC 1 and BBC 2 put together. Now we have reduced our new commissions to a few per year and our programme budget has sunk temporarily to £1m”

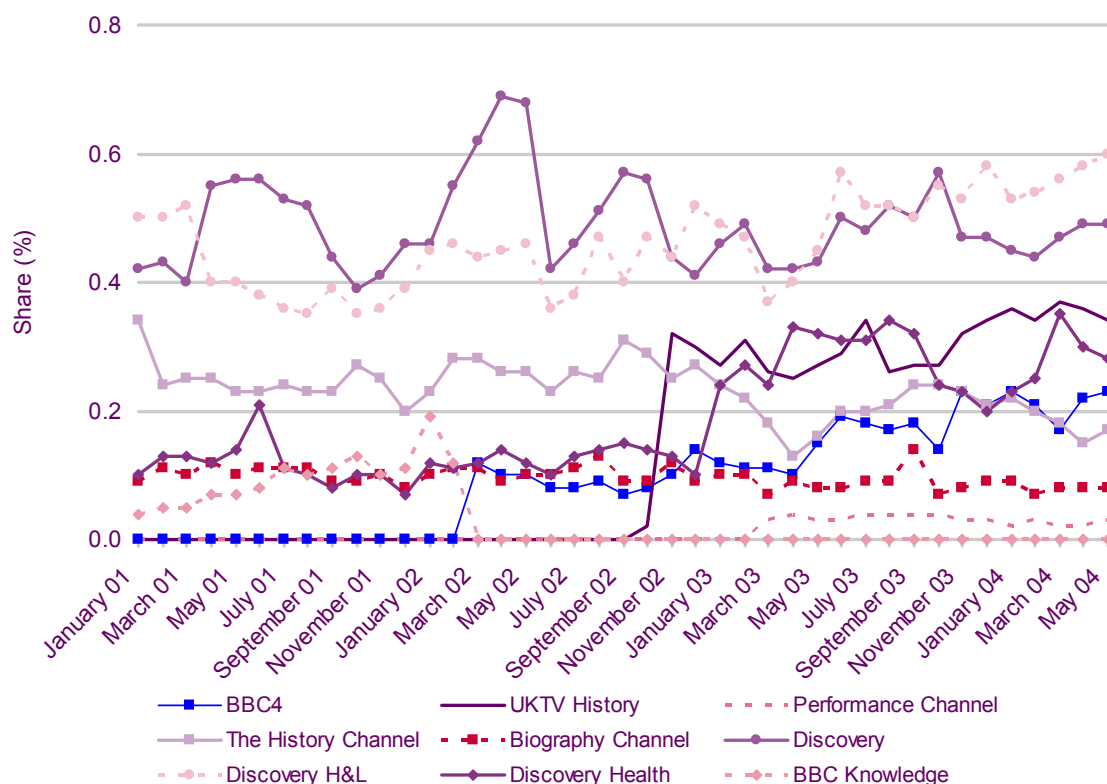
6.32 Other evidence suggests that these statements may be exaggerating BBC 4’s impact on specialist arts and documentary channels. Since it launched BBC 4 has not taken a tremendous amount of share (see chart below). O&O estimate that BBC 4 had taken about 0.15 per cent of market share. BBC 4’s rivals have maintained market share and there have been some successful new channel launches since BBC 4 replaced BBC Knowledge. In particular, the Performance channel has established itself since BBC 4 commenced operation in March 2002. UKTV History has also established itself although we note that the UK channels are a commercial joint venture involving the BBC.

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<sup>36</sup> BARB data does not exist for Artsworld, preventing a direct comparison of audiences. However, rival factual channels attract similar age profiles to BBC4 and Artsworld’s status as a premium subscription channel suggests a similar bias towards ABC1 viewers

<sup>37</sup> The Guardian, 11 July 2002.



**Exhibit 25:** Audience shares of arts and factual based thematic channels in multichannel homes

Source: BARB

6.33 It is very difficult to assess how Artsworld's share and subscriber revenues have been affected by BBC 4 – no BARB data exists on Artsworld's audiences. O&O estimate that Artsworld earns gross profit (net of VAT) of £2.50 a month per subscriber before programming and management costs. Turnover in the year ending June 2003 was £775,000 on a subscriber base of 25,300. O&O estimate that Artsworld's slip in subscriber penetration from 0.4 per cent to 0.39 per cent (when it was expected to rise to 0.5 per cent) from 2002 to 2003 represented a loss of 5000 subscribers i.e. £150,000 (after conditional access and subscription management charges). O&O then assert that the presence of BBC 4 on Freeview has increased the importance of Artsworld to Sky as a way of winning free to view homes over to pay TV. O&O say this will manifest as an increased willingness on behalf of Sky to underwrite Artsworld's losses.

6.34 It is impossible to say whether BBC 4 has been the cause of Artsworld's financial difficulties. Any impact may have been relatively small since BBC 4 is a mixed genre channel whereas Artsworld is far more specialist. Viewers who like arts and documentaries a lot will probably still pay for the more focused offering on Artsworld even though a substantial part of BBC 4's programming deals with the arts and music.

### ***BBC 3 is unlikely to have undermined competition or chilled investment***

6.35 Although BBC 3 attracts an audience of similar age and socio-economic profile to ITV 2 and E4, there appear to be significant differences between the schedules of BBC 3 and its competitors. This is largely due to the stringent remit imposed on BBC 3 as a condition of its approval.

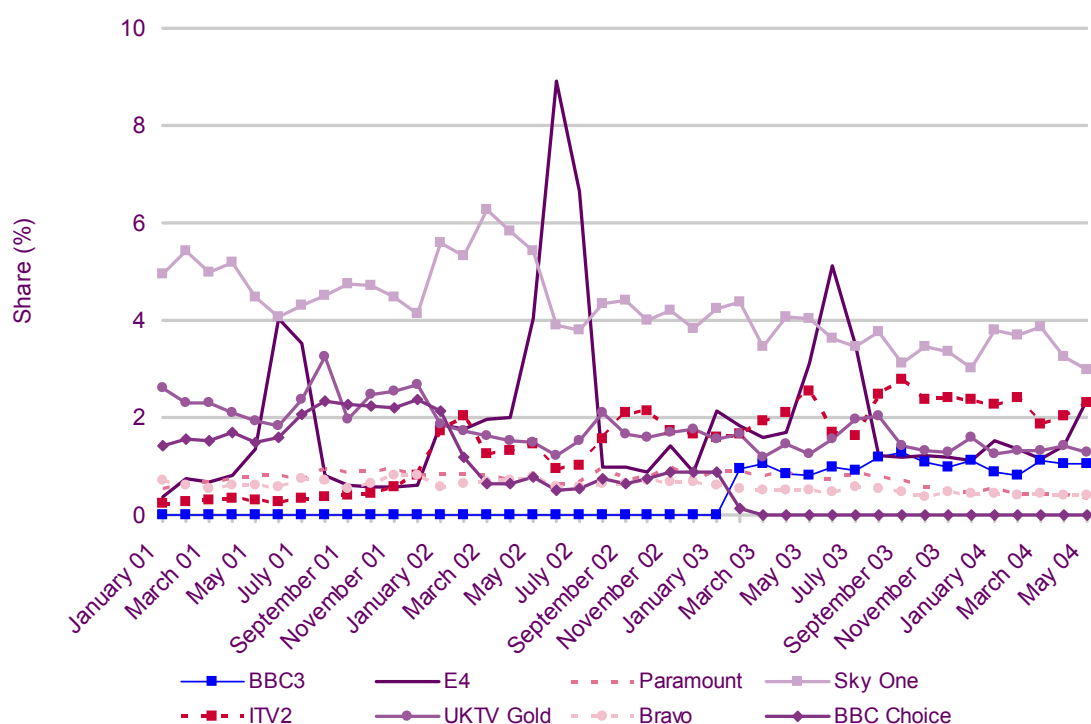
6.36 Submissions suggested the BBC 3 had the potential to drive up rivals programmed costs, particularly if BBC 3 were allowed to freely compete for the most popular programming in

future. Channel 4 noted BBC 3's aggressive bidding for popular presenters for its digital channel was having an inflationary effect:

"...the size of the Channel's [sic] budget has also allowed the poaching, at great expense, of already well-established television personalities such as Dom Jolly"

- 6.37 BBC 3's audience share has only increased by 0.2 per cent over BBC Choice's audience. Its increase in multichannel homes has been even smaller. Most of BBC 3's competitors appear to have been completely unaffected by BBC 3 – the decline in share for both Sky One and UKTV Gold began well before BBC 3 launched and the other rivals have maintained share.

**Exhibit 26:** Audience shares of entertainment TV channels



Source: BARB

- 6.38 As a result of BBC 3's remit, and its relatively small audience share we think it unlikely that BBC 3 has had a significant impact on the market for entertainment TV channels focused on young adults. Competition between mixed genre channels is healthy and demand is diverse. BBC 3 does not appear to have precluded competition in any identifiable market niches.
- 6.39 Given the size of its budget, there is a residual risk that in future BBC 3 could undermine competition or investment if it were free to pursue a more commercial strategy. In particular, BBC 3 could drive up the costs of more popular programming and talent.
- 6.40 There is little data to suggest that there has been significant cost inflation resulting from BBC 3's activities to date. We regard this as evidence of the importance of BBC 3's clear remit which has constrained its ability to bid up the cost of acquired programming. In the final approval of BBC 3 by the Government, explicit obligations were imposed for

originations, UK sourced and independent programming. Without the continuing presence and monitoring of these commitments, BBC 3's relatively large budget means there may be a risk of the channel pursuing the rights of major hit shows and inflating the cost of acquired programming for commercial rivals, such as ITV2 and E4.

### Specific impact of the BBC's new digital radio services

- 6.41 The presence of the BBC's new digital radio stations may undermine the investment case for commercial radio stations which position themselves in the vicinity of BBC's stations serving relatively undeveloped audiences. Only marginal services competing with the BBC's new digital radio services are likely to be affected. In the case of these services, there is a possibility that the BBC's involvement in the niche might leave insufficient audience for marginal rivals to remain viable. This might also prevent otherwise viable services from starting up.
- 6.42 Where the BBC service's budget is disproportionately large relative to the funds available to its commercial rivals, the risk that it will leave inadequate audience for its rivals is far higher. Based on figures presented by O&O, the BBC is spending £20.8m per annum on its new digital services. The BBC's budgets are far larger than those of its digital only rivals for which the average budget is around £100,000.

**Exhibit 27:** Annual budget of new BBC digital radio stations

Station	Budget 2003/04
BBC 6 Music	£4.2m
BBC Asian Network	£4.3m
BBC 1 Xtra	£6.1m
BBC Five Live Sports Extra	£1.7m
BBC 7	£4.5m

Source: O&O

- 6.43 Submissions were broadly supportive of the BBC's digital radio services but expressed slight concerns about their involvement in certain niche areas. CRCA indicated there is a need:
- “for the BBC to constrain its digital radio activities if these are likely to endanger unduly a commercial radio initiative which can reasonably claim to be in the public interest during its fragile launch phase.”
- 6.44 Despite these issues, submissions from the radio sector were generally supportive of the broad output of the BBC. Chrysalis Radio wrote:
- “In general, our views on the BBC's digital radio services are positive. The stations have for the most part been of high quality and distinctive... and we suspect they have had little impact on our ability to sustain our services”
- 6.45 We looked at the impact of all the new BBC digital radio services. It is our view that the main issue with the BBC's new radio services concerns the radio speech segment and the Asian radio segment.

### *BBC 7 may undermine prospects for future competition in the speech market*

- 6.46 BBC 7's mix of same week repeats and archive broadcasts is broadly similar to Oneword's

narrative speech programming of both drama and comedy. Oneword offers a regular output of speech based entertainment and factual programming. Three quarters of BBC 7's programmes come from BBC 4 archives – the rest come from other BBC services. On the other hand, three quarters of Oneword's output is made up of readings of already published books. BBC 7 does only 10 per cent readings.

- 6.47 In January 2004, USI Holdings announced that it was selling its 50 per cent stake in Oneword. This was partly due to the launch of BBC 7 and partly due to the fact that BBC Worldwide acquired one of Oneword's two 50 per cent shareholders – Chivers Press. Chivers is an audio book company and this acquisition enhanced Worldwide's position in the UK audio book area (e.g. gaining the BBC the rights to audio versions of the Harry Potter books). However, because Worldwide could not take Oneword's interest in Chivers, the interest passed to Chivers' original owners – Hong Kong based USI. As the CRCA submission put it:

"This initiative not only removed one of Oneword's most active directors, Chivers' MD Simon Gibbs, it also replaced an enthusiastic shareholder with one that was decidedly uncertain about radio investments in general and digital radio investments in particular"

- 6.48 CRCA indicated that the survival of Oneword had been jeopardised by BBC 7:

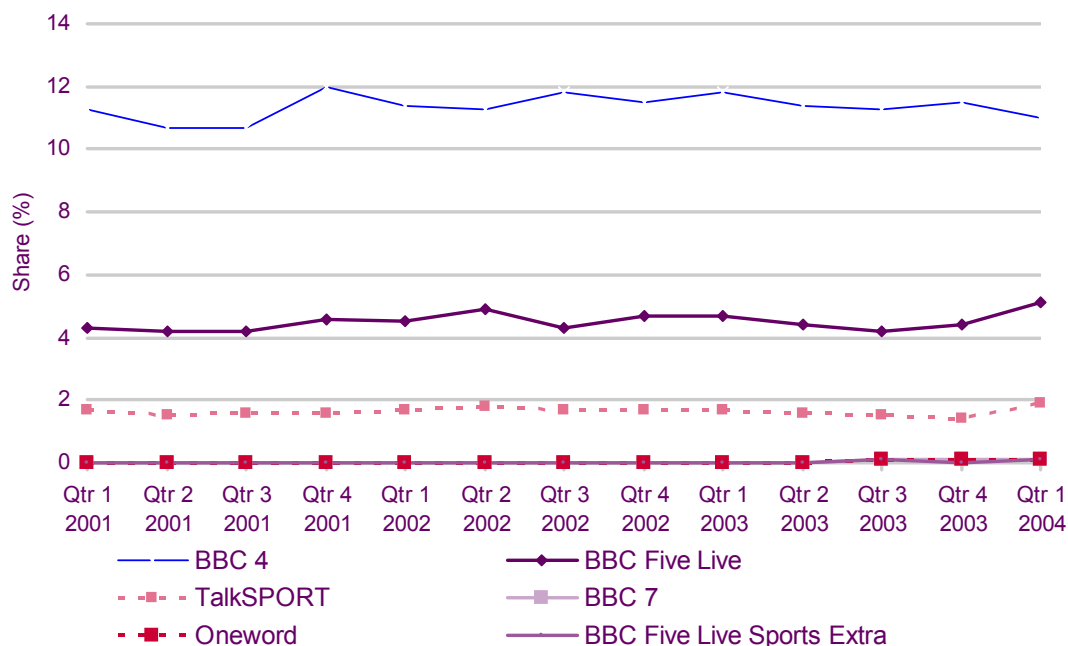
"...(the) weakness of Oneword's financial position as compared with its business plan is, in part, due to a slower take up of DAB radio sets than had initially been anticipated. It is clear, however, that the two moves by the BBC have significantly aggravated an already challenging situation."

- 6.49 CRCA questioned the reasons for a publicly funded alternative to Oneword, when the intention of both Oneword and BBC 7 was to use the BBC's archive of spoken word material. CRCA also emphasised the fact that by limiting access to its archive, BBC 7 had gained an edge over its commercial rivals:

"Oneword sought to serve a previously unserved market. At its inception there was no reason to believe that the BBC intended to launch its own service of all-day spoken word entertainment. This market now splits its listening across two similar programme services thus diluting the number of hours that Oneword could reasonably have been expected to attract."

"(BBC) was able to combine its commercial muscle through BBC Worldwide with its protective attitude towards its own archive and launch a publicly funded radio service to the disadvantage of a fresh, new Commercial Radio [sic] endeavour designed to enhance the breadth of Commercial Radio's provision."

- 6.50 Neither BBC 7 nor Oneword have taken any real audience share so far as shown by the chart below. However, if BBC 7 grows, it may be more difficult in future for others to start supplying similar services – there may not be sufficient audience left for commercial operators to make a viable business in the speech segment.

**Exhibit 28:** Market shares in the speech radio segment

Source: RAJAR

6.51 The lack of access to the BBC's archives may present a significant hurdle for others seeking to enter the speech market. It is not clear whether commercial operators have faced difficulties accessing the BBC's archive materials. O&O say that "if BBC 7's use of archive BBC material is leading to its unavailability to Oneword, then this could be said to increase Oneword's costs". The argue that lack of archive supply could be explained by the need to protect the general BBC brand (particularly Radio 4's brand) so that even if there is actually a denial of access it cannot be attributed to BBC 7.<sup>38</sup> We do not find this explanation persuasive.

### ***BBC Asian Network may be having a significant impact on commercial Asian radio***

6.52 The BBC Asian Network is aimed at the UK's Asian population offering a roughly equal combination of speech, music, sports and news. Its main competitors are digital-only stations such as Yarr Radio ('Yarr') and Asian analogue stations such as Sunrise, Sabras, XL and Asian Sound which all simulcast in digital on local multiplexes in the UK's major Asian communities (e.g. Bradford, Birmingham, London). There is no national Asian radio service.

6.53 Submissions on BBC Asian Network's impact on the Asian radio segment made the following points:

- Sunrise suggested that O&O had understated the market impact of the BBC Asian Network (by -£500,000) and its implications for the viability of smaller commercial analogue Asian services. Since BBC Asian Network offers sponsorship and event services for free, commercial rivals' ability to win revenues from these services has

<sup>38</sup> O&O TV Report p.44.

arguably been eroded. Sunrise indicated that sponsorship and events are an important source of income for Asian radio stations.

“Our own internal research into the impact on our analogue service Sunrise and nascent digital services (Sunrise and Yarr) suggests that the negative impact to Sunrise and Yarr alone is likely to be in the region of £2m to £3m (over the next two years).”

- While more established commercial services are likely to survive, Sunrise argue that incentives to invest will probably be undermined and smaller services' viability may be threatened. In future, BBC Asian Network's national reach will extend its competitive advantage over its commercial rivals. This is particularly so in areas where only small Asian populations exist and local stations are likely to struggle:

“[while] a relatively larger Asian radio group will survive (albeit with much dented enthusiasm and commitment to further expanding Asian local digital services), the smaller local Asian analogue services may become unviable (let alone be able to commit any new potential investment into digital)..”

- 6.54 BBC Asian Network has been far and away the most successful BBC digital radio station, with a weekly reach of 4 per cent. O&O indicate, in their analysis, that Yarr and Sunrise are likely to have been most affected by the BBC Asian Network.

“The impact on analogue services is likely to be spread across a number of services, with a particular impact on local commercial Asian services such as Sunrise.”

- 6.55 There is a real risk that BBC Asian Network's impact will remain significant in future, since its relatively large budget and national reach will allow it to continue growing its audience share. This may dampen prospects for innovation and new entry into the Asian radio segment.

## Creative base

- 6.56 There is considerable evidence that the new BBC TV channels have had a positive impact upon the creative production base in the UK.

- In relation to TV, the BBC note: “given that the BBC channels combined programming spend was about £168m a year for each channels initial launch year, and that about £150m of this was on new programming or co-production, the channels have clearly made a major contribution to stimulating the production sector”<sup>39</sup>. According to O&O this amounts to a doubling of new programming investment by TV thematic channels. The relatively high proportion of expenditure on independents and productions outside of the South East was used as further evidence of the benefits of the four digital TV channels.

- Similarly, in radio, O&O estimate the BBC has added +£21m to production.

- 6.57 Some of this spend would have occurred anyway, if commercial rivals had seen more revenues. However, we consider that expenditure on content would certainly have been lower without the BBC's new services.

- 6.58 Some submissions suggested that the BBC's new services might have driven up the cost of acquired programming for commercial rivals. In particular, it was suggested that this may have occurred in the speech radio segment (e.g. BBC 7). Also, several submissions pointed out that TV programming costs may already have been driven up by the BBC (discussed in more detail above in relation to BBC 3 and CBBC).

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<sup>39</sup> Ibid, p.75

- 6.59 However, the BBC consider that there has been limited scope for cost inflation in TV. According to O&O, the BBC's new services are unlikely to have pushed up content prices for rival services because they do not pursue top-end acquisitions. Also, O&O assert that little of the channel content used well-established names which would have increased talent costs. O&O state that spending by the BBC's new services on originated TV programming will keep overall prices of acquired material down in future.
- 6.60 Cost inflation can impact on competition. It can erode commercial players' incentives to innovate or to compete head-on with the BBC providing certain types of content. There seems to be a real risk that the BBC might drive up the cost of key rights in future and that access to key rights will be limited by the BBC's new services.



## 7. Conclusions

- 7.1 No overall recommendations about the future existence or regulation of the BBC's new services can be made on the basis of the market impact assessment alone. However, where a potential adverse effect on competition has been identified, it is appropriate to consider whether the adverse effect could be reduced or eliminated through changes in the system of oversight of BBC services.

### Main issues

- 7.2 The main findings of our market impact assessment are:
- Across the board, there are benefits of the BBC's digital TV and radio services to the competitive process – particularly through Freeview and DAB – although probably not on the scale suggested by the analysis presented by O&O.
  - The main problem is likely to be the specific impact of the new services on marginal competitors and risky innovation in nascent market niches. This may deter future investment and limit market entry.
  - There may also be specific instances where acts by the BBC – for example in the treatment of rights – could foreclose the emergence of competition in a market.
  - The BBC's own assessment understates the direct financial impact on the commercial sector of the BBC's new services.
- 7.3 We found that the analysis undertaken on behalf of the BBC by O&O:
- tends to be assumption driven.
  - generates results which are highly sensitive to assumption changes.
  - and is based on two unrealistic assumptions. First, we consider it highly unlikely that Freeview will afford channels any significant leverage in their negotiations with pay TV platforms over subscription fees. Freeview has no room for extra channels, offers far less scope for subscription revenues (since few DTT STB have CA capabilities) and reaches far fewer people than Sky.
  - Second, including BBC Choice and Knowledge in the counterfactual understates the market impact of the new services. In fact the actual impact is likely to be twice the effect calculated using the O&O/BBC approach.
- 7.4 Safeguards can and must be put in place to address these risks to competitors and to the competitive process. Perhaps most importantly, measures should be considered to provide more certainty to commercial investors about both the BBC's current service remits, and any future digital development plans.

### Future market impact assessments

- 7.5 Each time a BBC service is proposed or reviewed, several different impact assessments are carried out. Frequently, this results in a duplication of effort and waste of resources that would be better focused on collecting evidence of the actual impact on the market's ability to deliver what consumers and citizens want. In addition, estimates derived from this analysis often depend entirely upon the assumptions that have been made, raising questions about the usefulness of this type of approach.



- 7.6 The BBC and Ofcom should agree an approach for assessing the market impact of new BBC services to avoid wasteful replication of analysis. This common assessment framework should be broader than just considering direct market impact – it should also look at whether the proposed service is the most efficient, best ‘value for money’ way of achieving what the service aims to achieve (i.e. taking into account the budget that has been allocated to it, the appropriateness of the service’s objectives and the possibility that the market might also partly or fully provide similar types of programming). Given the similarities between the approach adopted by the BBC in its response to the Charter review consultation and our own approach (e.g. in the PSB review), we think it would be possible to develop a common analytical framework with the BBC. We have already begun the process of developing such a framework.

## Annex A: Analysis of O&O's market impact assessment

- A.1 Ofcom commissioned Spectrum to undertake sensitivity analysis on O&O's calculation of the market impact of the new BBC digital services. Key assumptions underpinning the O&O numbers were adjusted to alternative, plausible levels in order to see how much the final numbers changed. Spectrum found that the O&O calculations were quite sensitive to reasonable changes in the underlying assumptions.
- A.2 It is worth noting that Spectrum's analysis did not generate alternative estimates of the impact of the BBC's new services on commercial revenues. Spectrum therefore adopted the O&O methodology and varied the main assumptions to test the sensitivity of the results to these changes. O&O used a counterfactual which included BBC Choice and BBC Knowledge

### Impact on commercial TV revenues

- A.3 O&O undertook an extensive analysis of Freeview's impact on commercial revenue for the BBC. We have reviewed this analysis, with the assistance of Spectrum. O&O's estimate of the impact of the BBC's new services on commercial TV revenues is that it is probably negative i.e. -£3.3m to -£31.1m. Spectrum considers this assessment to be sensitive to changes in the assumptions on which it is based. For instance, using the same methodology but making different assumptions, Spectrum arrive at an estimate which is 50 per cent higher i.e. -£48m. We need to go through the steps involved in the calculation of Freeview's revenue impact to assess how close to the actual financial impact of the BBC's new services this approach takes us.

### Platform impact

- A.4 O&O consider that "with the overall subscription fee impact neutral to slightly positive, and the advertising impact only negative in the short term, and then only strongly negative for one or two specific owners – it is probably best to consider the platform impact broadly neutral"<sup>40</sup> i.e. -£21.7m to +£0.5m. On the other hand, Spectrum believes that this is likely to undervalue the effect of the BBC channels on advertising and subscription revenues and that this could be around -£43m. To understand the difference between the two estimates we need to look at the calculation of the impact on subscription fees and on advertising revenues separately and then combine the two effects to arrive at an overall impact figure.
- A.5 Subscription income. O&O assume that Freeview has had a neutral or slightly positive impact on subscription fee income of between -£3m and +£4.5m because:
- O&O assume Freeview has had a marginal negative impact on subscriber numbers. O&O assume that between 1 and 2 per cent of all TV households have chosen to take DTT rather than pay TV, based upon willingness to pay data from 2001 and 2003 – a loss of 250,000-500,000 subscribers per annum.<sup>41</sup> This represents between about £15m and £30m a year in reduced sub fees for pay TV channels.
  - O&O argue that "by creating a substitute platform to pay-TV, they (BBC digital services) will have increased the leverage enjoyed by third party channel operators vis a vis the

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<sup>40</sup> O&O TV Report p.63

<sup>41</sup> O&O TV Report, p.3

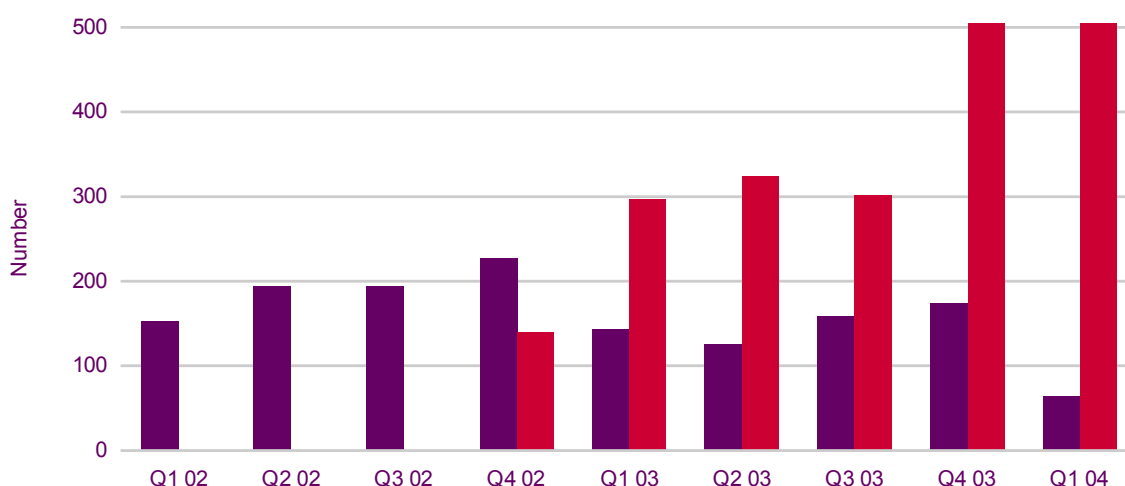
pay TV platforms"<sup>42</sup>. O&O argue that the existence of some substitution between Freeview and pay-TV platforms increases the leverage of third-party channels in their subscriber fee negotiations with Sky and cable operators. They suggest the rapid uptake of Freeview has provided a viable alternative platform to operate a free-to-air strategy. In addition, pay-TV platforms will be under more pressure to retain attractive and popular channels, whose defection to free-to-air DTT could threaten subscriber numbers and revenues. O&O assume a 2 per cent increase in the average subscriber fee paid to thematic channels, yielding £12m additional revenues for these channels. Half of this benefit is attributed to the role of the four BBC digital channels in driving Freeview take-up.

- O&O estimate that as a result of Freeview, an extra 200,000 homes are likely to upgrade to at least entry tier pay TV worth another £12m.

A.6 On the other hand, Spectrum analysis suggests that the negative impact of Freeview on subscription fee income to be more substantial at around -£20m because:

- Spectrum assumed a 4 per cent loss of pay-TV households to Freeview since the launch of the BBC channels (rather than 2 per cent). This reflects Spectrum's view of a greater degree of substitutability between the pay-DTH and DTT platforms than O&O suggest and the view that the assumption of 2 per cent ignores the historic growth in willingness to pay for television. Spectrum cite Sky's recent announcement of an extended free-DTH ('FreeSat') package of channels as evidence of current, or the anticipation of future, substitution from paying subscribers to Freeview.<sup>43</sup> This was widely interpreted as a defensive manoeuvre by Sky to stem further losses of subscribers to Freeview. As one media analyst recently put it "anyone who goes to Freeview is probably lost to Sky forever."<sup>44</sup> Spectrum also note the fact that Freeview appears to be having a more negative impact on pay TV subscriber growth than O&O suggest. For Q1 of 2004, Sky's unusually low net subscriber growth of 66,000 may have been due to the rapid acceleration in Freeview uptake during Q4 2003 when DTT STB sales accelerated – running at 100,000 per week. Over 800,000 households converted to DTT in the final quarter.

**Exhibit 29:** Net additions to Sky and Freeview in UK (,000)<sup>45</sup>



<sup>42</sup> O&O TV Report, p.61

<sup>43</sup> FreeSat is a package of 116 TV channels and 81 radio stations, including the full portfolio of BBC channels made available free-to-view for a one-off charge of £150 for satellite dish, set-top box ('STB') installation and viewing card. No subscription fee would be charged by Sky.

<sup>44</sup> Mathew Horsman, director at media consultancy Mediatique.

<sup>45</sup> Note: Ofcom reports subscriber totals for the UK, excluding Sky subscribers in the Republic of Ireland

Source: Ofcom

Also, O&O's estimate of a 1-2 per cent loss in subscribers is based upon the difference in willingness to pay survey data from 2001 and 2003. However, Spectrum believe this ignores the historic growth in willingness to pay for television. In this context, Spectrum believe that pay-TV penetration would have been likely to grow to levels above those recorded in 2001. Prior to the launch of the new services in 2002/3, Spectrum indicate that willingness to pay for subscription TV was rising – the proportion of households paying for TV was growing strongly prior to the launch of Freeview in October 2002 rising from 26 per cent in Q3 to 43 per cent in Q3 2002.

- It is Spectrum's view that the emergence of Freeview is unlikely to give individual channels any greater leverage in their negotiations over subscription fees because Freeview does not present channel operators with an effective substitute platform to pay-DTH or cable for channels for several reasons. First, the six DTT multiplexes have limited spare capacity for channels seeking to transfer from pay-TV platforms and any channel seeking transmission would probably have to buy-out an existing DTT channel - a potentially expensive process. Also, Freeview has restricted coverage and household penetration. Despite impressive recent growth, DTT is only received in 4m households, compared to 7m pay-satellite homes.<sup>46</sup> This limits the potential advertising revenue that could be generated to make up for the loss of subscription revenues from pay-TV platforms. In addition, a subscription business model on the DTT platform (i.e. TopUp TV) is constrained by the small number of DTT STBs that exist with conditional access module slots. Currently, only the 500,000 ex-ITV digital STBs offer such capabilities, although STBs with conditional access are being brought to market by a number of manufacturers to meet the demand for Top-Up TV. Finally, any benefits in leverage are only likely to be realised by a small number of highly recognised channel brands, such as the Discovery Channel or Disney, whose defection the pay-TV platform operators will be most keen to avoid. The majority of less well-established brands have a far more dependent relationship on platform operators and lack the negotiating power to realise any gains in subscriber fees.
- Spectrum also assume that there is unlikely to be a significant number of homes upgrading to pay TV as a result of Freeview (as compared to O&O's assumption of an additional benefit of +£12m).
- Spectrum also feel that Freeview could be having a negative impact on ARPU in other ways. A large number of Sky and cable homes have been taking Freeview to provide additional channels on sets which are not used as the primary means of viewing. Estimates from Ofcom and Continental Research put the potential number of Freeview boxes being used for secondary sets in Sky or cable households at 250,000-350,000. This equates to an approximate annual revenue loss as a result of households taking Freeview instead of second set-top box subscriptions of up to £50m. It is possible that Freeview is responsible for keeping Sky's churn (i.e. households leaving the platform) from falling, by encouraging lower-tier subscribers to transfer from Sky to DTT. This effect on churn may have been accentuated by the recent launch of Top-Up TV. Increasing awareness of the existence of multichannel TV for no monthly subscription may have acted to underline the cost of pay-TV packages and encouraged subscribers to trade down to lower-tier packages.

A.7 O&O attribute half of the benefit from Freeview to the BBC's new services indicating that they "may well have increased overall digital TV take-up by 1m households since the

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<sup>46</sup> Source: Ofcom

launch of the new services 3 years ago".<sup>47</sup> This is based on

- evidence which suggests that the BBC's new services have been the lead driver of Freeview growth.
- consumer research into Freeview households' attitudes towards pay TV and their socio-demographic profile relative to pay TV homes
- the BBC's new services have made a small contribution to the take up of digital pay TV platforms by enhancing the overall offer.<sup>48</sup>

A.8 According to Spectrum, however, the assumption that 50 per cent of Freeview take-up since 2002/3 can be attributed to the BBC's new channels can be questioned. It implies that without the presence of the four BBC channels (and their promotion on BBC1 and BBC2, as addressed later), the number of Freeview homes would be 1.0-1.5m<sup>49</sup> less than current levels – 2.2 to 2.7m households (9 to 11 per cent penetration of TV households) rather than their actual level of 3.7m (14 per cent penetration). In fact, the available data suggests other channels have also played a significant role in driving take-up. They provide the majority of the additional channel choice on Freeview, which is highlighted by consumer research as the primary reason for purchasing DTT equipment. Channels other than the four BBC services are also more popular among viewers, both collectively and individually. Spectrum assume that the BBC has been responsible for 30 per cent of Freeview's take-up.

A.9 The BBC's new services have certainly pushed DTT take up much faster than if they were not there (in both radio and TV). Against this background, the O&O assessment that the BBC new services account for 50 per cent of the benefits or detriments of Freeview does not seem unreasonable.

A.10 Advertising income. O&O assert that "the overall net advertising impact of the BBC service's role in helping Freeview penetration is positive"<sup>50</sup>. To calculate the impact on advertising revenue of a change in audience share it is necessary to make an assessment of what will happen to the price of advertising impacts when the quantity supplied changes (i.e. elasticity).

A.11 When advertising funded channels lose audience share, their supply of impacts falls in equal proportion. If the price of spot advertising remained constant, this would lead to a proportionate decrease in advertising revenues. If the price of advertising were to increase, then this would reduce to some extent the effect on revenues. The (own price) elasticity of demand relates changes in the price of spot advertising to the quantity of impacts (and vice versa). O&O use two different elasticities in their calculations of the impact of the BBC's new services on advertising revenues:

- Terrestrial network TV advertising market elasticity of -1.6. In other words, a 10 per cent reduction in commercial impacts for terrestrial networks reduces advertising revenue by 3.8 per cent.
- Thematic (i.e. satellite and cable) advertising market elasticity of -2.5. In other words, a 10 per cent impact reduction for thematic channels reduces revenue by 6 per cent.

A.12 Spectrum use different elasticities provided by Ofcom. We recently undertook work in conjunction with David Hendry and Price Waterhouse Coopers estimating the price elasticity of demand for advertising on satellite and on terrestrial. We found:

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<sup>47</sup> O&O TV Report, p.3

<sup>48</sup> O&O TV Report, p.63-64

<sup>49</sup> Depending on the assumed start date – BBC 4, CBeebies and CBBC launched in February-March 2002, BBC 3 launched in February 2003

<sup>50</sup> O&O TV Report, p.64

- a slightly lower elasticity for terrestrial advertising compared to previous estimates by Hendry. Our estimate of the short run terrestrial elasticity was 1.18 (i.e. very little substitutability given the annual contractual nature of the market). Our estimate of the long run elasticity was 1.44 (i.e. a greater level of substitutability outside of contractual arrangements). This means that in the long term a 1 per cent reduction in terrestrial advertising impacts (for e.g. Channel 4) would lead to a 0.7 per cent increase in the terrestrial price and NAR would fall by 0.3 per cent. This view is supported by preliminary findings from work being done on Phase II of the PSB review which shows that, when looking across countries, public TV spend does not mean lower advertising or subscription revenues.
  - A high elasticity for multichannel advertising – this elasticity had not been estimated before. Our estimate of the short run elasticity for satellite advertising was 1.6 in the short run and 3.8 in the long run. This means that in the long term a 1 per cent reduction in multichannel impacts would lead to only a 0.25 per cent increase in satellite price and NAR would fall by 0.75 per cent.
- A.13 To the extent that the BBC's new services have taken impacts away from thematic channels, the higher multichannel elasticity means that the impact on multichannel NAR was higher than that which O&O estimated. Spectrum assumed the BBC's new services took the same audience share from terrestrial channels and multichannel channels as O&O did.
- A.14 O&O conclude that the boost to Freeview penetration provided by the new BBC TV channels has increased TV net advertising revenue ('NAR') by £1m-£16m pa<sup>51</sup>. This conclusion is based upon the net gains of additional digital homes outweighing the net losses for pay-TV and terrestrial channels.
- TV NAR is raised by the extra viewers for Freeview channels, and the substitution of pay-TV for DTT homes boosts ITV1, C4 and Five, which achieve a higher viewing share in Freeview than pay-TV homes. These combined positive effects are estimated to increase TV NAR by £24.5m-£27m;
  - TV NAR is negatively impacted by the loss of viewers and advertising revenue for thematic pay-TV channels and the reduced viewing share for ITV1, C4 and Five in DTT homes relative to five-channel analogue homes. The combination of these factors is estimated to reduce TV NAR by £17m-£22m;<sup>52</sup>
  - The ITV rebate for new digital homes is factored in as is the fact that Five has the same share in Freeview homes.
- A.15 However, this advertising revenue benefit has to be weighed against £20m extra transmission costs for thematic channels on Freeview which means that the overall impact for channels is slightly negative – until Freeview penetration increases. In other words, the impact is “negative, but only in the short-term”.<sup>53</sup>
- A.16 However, based on elasticity estimates supplied by Ofcom, Spectrum's analysis estimates the impact on advertising to be more negative than the +£1m to +£16m pa found by O&O. It is worth noting that Spectrum's work was more in the nature of sensitivity analysis than a complete re-estimation of advertising impact. Spectrum assessed the impact to be a loss of between -£2.5m and -£3m

<sup>51</sup> O&O note that in the short-term, this net benefit will be offset by £20m of extra transmission costs for thematic channels on Freeview. But they argue that over time, increasing Freeview penetration will drive incremental advertising revenues above the additional transmission costs, creating a positive net effect

<sup>52</sup> This includes an assumed benefit to ITV and Five from reduced analogue licence payments and an increase in reach for Five in DTT homes relative to analogue

<sup>53</sup> O&O TV report, p.66.

- Only 30 per cent of Freeview take-up was attributed to the BBC rather than the 50 per cent assumed by O&O.
  - the Ofcom elasticities were used (see above). The Ofcom elasticity for thematic advertising is higher – i.e. it is -3.8 instead of -1.4.
- A.17 Over time, O&O anticipate that the BBC channels will have a greater positive effect on platform operators and rival channels. This is based on:
- Freeview becoming more of a complementary platform as a result of the emergence of Top-Up TV. O&O argue that “while a few new Freeview homes may be substitutes for pay-TV homes, the emergence of Top-Up TV is likely to encourage more initial Freeview homes to eventually upgrade to pay TV. Freeview may therefore become more of a complementary platform”<sup>54</sup>.
  - improvement in the leverage of channels with pay-TV platforms as a result of increasing Freeview penetration;
  - increasing advertising revenues for DTT channels as a result of increasing Freeview penetration.
- A.18 However, Spectrum believe that this presents an overly optimistic view of the future impact of Freeview because the emergence of Top-Up TV is likely to make Freeview more a substitute, and less of a complementary platform to pay-TV. By providing several of the key channels which are included in basic tier pay-TV packages (such as E4, UKTV Gold and the Discovery Channel) at a lower monthly cost<sup>55</sup>, Top-Up TV could encourage subscribers to move from Sky and cable to the DTT platform. The effect of this increased substitution would be reduced subscriber growth. Also, increasing DTT penetration is unlikely to have much impact on the ability of most channels to negotiate with pay-TV platform operators as discussed above.
- A.19 Based on O&O's methodology, but revising the assumptions adopted by O&O, Spectrum's calculation of the overall platform impact on subscription income is summarised in the following table.

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<sup>54</sup> O&O TV report p.80

<sup>55</sup> Top-Up TV charges £7.99 a month for 10 channels. Sky's basic package of channels costs £19.50 per month



**Exhibit 30:** Sensitivity analysis of impact via Freeview of new BBC TV services on subscription revenues

	O&O estimate	Revised estimate
<b>Reduced pay-TV penetration</b>		
• Reduction in pay-TV subscribers due to Freeview	1-2%	4%
• Lost subscribers	250-500k	1m
• Loss of subscription fees	-£15 to -£30m	-£60m
• Proportion of Freeview uptake attributable to BBC channels	50%	30%
• Loss of subscription fees due to BBC channels	<b>-£7.5m to -£15m</b>	<b>-£20m</b>
<b>Increased leverage with pay TV platform</b>		
• Increase in subscription revenues for channels	2%	-
• Total benefit to channels	+£12m	-
• Proportion of Freeview uptake attributable to BBC channels	50%	-
• Benefit to channels due to launch of BBC services	<b>+£6m</b>	-
<b>Potential future upgrade of Freeview homes to pay TV</b>		
• Proportion of Freeview homes upgrading to basic tier of pay-TV	10%	-
• Number of homes	200k	-
• Increase in subscription revenues	+£12m	-
• Proportion of Freeview uptake attributable to BBC channels	50%	-
• Benefit to channels due to launch of BBC services	<b>+£6m</b>	<b>-£20m</b>
<b>Overall impact range</b>	<b>-£3m to +£4.5m</b>	

Source: Spectrum

A.20 Based on Ofcom's elasticity estimates, Spectrum's calculation of the overall impact on advertising income is summarised in the following table.



**Exhibit 31:** Sensitivity analysis of impact via Freeview of new BBC TV services on advertising revenues

	O&O estimate	Revised estimate
<b>Lost thematic pay TV advertising revenue</b> <ul style="list-style-type: none"> <li>Pay-TV subscribers lost to Freeview</li> <li>Elasticity</li> <li>Lost advertising revenues</li> <li>Proportion attributable to BBC channels</li> <li>Lost advertising revenues due to BBC channels</li> </ul>	250-500k -2.5 -£5m to -£10m 50% <b>-£2.5m to -£5m</b>	1m (Spectrum estimate) -3.8 <sup>4</sup> -£24m 30% <b>-£7.2m</b>
<b>Benefit to terrestrials of Freeview homes rather than pay-TV homes</b> <ul style="list-style-type: none"> <li>Pay-TV subscribers lost to Freeview</li> <li>Gain in viewing for terrestrials in Freeview homes</li> <li>Increase in revenue (pre-price adjustment)</li> <li>Elasticity</li> <li>Revenue gain for terrestrials (post-price adjustment)</li> <li>Proportion attributable to BBC channels</li> <li>Revenue gain for terrestrials from BBC channels</li> </ul>	250-500k 15% +£5m to +10m -2.5 +£2.5m to +£5m 50% <b>+£1.3m to +£2.5m</b>	1m (Spectrum estimate) 15% (O&O estimate) +£20m -3.8 <sup>4</sup> +£12m 30% <b>+£3.6m</b>
<b>Harm to terrestrials from Freeview rather than 5 channel analogue</b> <ul style="list-style-type: none"> <li>Extra DTT homes since launch of BBC services</li> <li>Reduction in terrestrial viewing share in DTT homes</li> <li>Reduction in revenue (pre-price adjustment)</li> <li>Elasticity</li> <li>Reduction in revenue (post-price adjustment)</li> <li>Proportion attributable to BBC channels</li> <li>Revenue loss for terrestrials due to BBC channels</li> </ul>	1.8m 8% -£45m -1.6 -£12m <sup>1</sup> 50% <b>-£6m</b>	1.8m (O&O estimate) 8% (O&O estimate) -£45m (O&O estimate) -1.44 <sup>4</sup> -£14.7m <sup>2</sup> 30% <b>-£10m</b>
<b>Benefit to thematic channels on Freeview</b> <ul style="list-style-type: none"> <li>Gain in revenue (pre-price adjustment)</li> <li>Elasticity</li> <li>Gain in revenue (post-price adjustment)</li> <li>Proportion attributable to BBC channels</li> <li>Revenue gain for due to BBC channels</li> </ul>	+£37m -2.5 +£22m 50% <b>+£11m</b>	+£37m (O&O estimate) -3.8 <sup>4</sup> +£27m 30% <b>+£8m</b>
<b>Overall impact range</b> <ul style="list-style-type: none"> <li>Sub-total</li> <li>Increase in transmission costs paid by terrestrial channels for DTT multiplex capacity</li> </ul>	+£1.3m to +£16m <sup>5</sup> -£20m	-£5.6m -£20m (O&O estimate)
<b>Total impact range</b>	<b>"negative, but only in the short-term"<sup>3</sup></b>	<b>-£26m</b>

- Note:**
- (1) Includes implied £3m gain from reduction in analogue licence payments for ITV1 and no share loss for Five
  - (2) We have also made an adjustment for the reduction in analogue licence payments for ITV1 and no share loss for Five, by applying the same proportionate reduction as used by O&O
  - (3) p.66; O&O argue that over time, with the increasing Freeview penetration, the incremental income for digital channels will rise above the extra transmission costs
  - (4) Source: Hendry/PwC 2004 – supplied by Ofcom
  - (5) We are unclear as to how O&O's claimed upside of £16m has been reached from the net balance of the effects outlined above. The net impact of the positive and negative effects is +£1.3m to +£5.0m

Source: Spectrum

**Specific impact on commercial TV revenues**

A.21 In assessing the specific impact on near rival channels, O&O estimate that the direct impact on advertising revenues is likely to be small given that the new services have only made small incremental audience share gains since launch. In addition, the nature of advertising demand in the UK means advertising revenues may not be greatly reduced i.e.

prices rise in response to a loss in share and hence commercial 'impacts' by a commercial service, with price rise largely compensating for the loss of impacts.

- A.22 More specifically, O&O estimate a combined reduction in channel advertising revenue of between -£3.8m and -£9.8m a year with half coming from terrestrial networks and half from thematic channels:
- BBC 3 is assumed to have taken 0.2 percentage points from commercial operators resulting in a negative impact of -£1.2m to -£2.4m of which half is estimated to have come from other thematic channels. BBC 3 is likely to gain share in future increasing its direct impact on rivals.
  - BBC 4 is assumed to have taken about 0.15 percentage points amounting to a displacement of between -£0.9m and -£2m of which the majority came from networks (primarily Channel 4). Net revenue lost by Artsworld is estimated to be around £150k. Like BBC 3, BBC 4 is likely to increase share in future.
  - CBeebies and CBBC are estimated by O&O to have taken -£1.7m and -£3.8m together with 60 per cent coming from terrestrial networks and the rest from thematic channels such as Nick Junior, Nickelodeon and the Disney Channel. These channels are established market players with multinational parents – their future is not really threatened.
- A.23 The £2m to £5m impact on rival thematic channels represents 1 to 2.5 per cent of current advertising revenues earned by those thematic channels. It represents between 0.08 per cent and 0.2 per cent of commercial networks' revenues. Some channels suffer more than others as a result of the new BBC TV services but O&O estimate that no one thematic channel loses more than -£1m revenue (i.e. typically less than 8 per cent of revenues) and no one network more than -£2m p.a.. The specific negative impact on rivals is estimated by O&O to grow from -£6m to -£15m in future.
- A.24 Spectrum estimate this impact to be -£4.8m. This is based on Ofcom's work on advertising elasticities which found a larger thematic advertising elasticity and a slightly lower terrestrial network elasticity:
- BBC 3 is estimated to have taken -£1.5m;
  - BBC 4 is estimated to have taken -£1.1m; and
  - CBeebies and CBBC are estimated to have together taken -£2.2m.
- A.25 In addition, O&O only assess the impact of BBC 3 and BBC 4 over and above the share that BBC Choice and BBC Knowledge already had respectively (i.e. since their launches in February 2003 and March 2002 respectively). This means that a small amount of the impact of these channels may not have been taken into account in the O&O calculations. Pro rating the Spectrum's assessment of the impact of BBC 3 and BBC 4 up to reflect the total impact of each channel, we find that the impact doubles from -£4.8m to -£9.6m.
- A.26 Spectrum's assessment of the specific impact on commercial revenues is summarised in the following table.

**Exhibit 32:** Sensitivity analysis of direct impact of new BBC TV services on commercial revenues

	O&O estimate	Revised estimate
<b>BBC 3</b>		
• Reduction in impacts generated by terrestrial channels	0.06%	0.06% (O&O estimate)
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-1.44
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	-£0.5m
• Reduction in impacts generated by multichannel	0.25%	0.25% (O&O estimate)
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-3.8
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	-£1.0m
• <b>Total impact of BBC3 on rival channels</b>	<b>-£1.2m to -£4.0m</b>	<b>-£1.5m</b>
<b>BBC 4</b>		
• Reduction in impacts generated by terrestrial channels	0.13%	0.13% (O&O estimate)
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-1.44
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	-£1.0m
• Reduction in impacts generated by multichannel	0.02%	0.02% (O&O estimate)
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-3.8
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	-£0.1m
• <b>Total impact of BBC4 on rival channels</b>	<b>-£0.9m to -£2.0m</b>	<b>-£1.1m</b>
<b>CBeebies</b>		
• Reduction in impacts generated by terrestrial channels	0.05%	0.05% (O&O estimate)
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-1.44
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	£0.4m
• Reduction in impacts generated by multichannel	0.1%	0.1% (O&O estimate)
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-3.8
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	-£0.4m
• <b>Total impact of BBC4 on rival channels</b>	<b>-£0.7m to -£1.4m</b>	<b>-£0.8m</b>
<b>CBBC</b>		
• Reduction in impacts generated by terrestrial channels	0.1%	0.13% (O&O estimate) <sup>2</sup>
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-1.44
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	£0.4m
• Reduction in impacts generated by multichannel	0.05%	0.25% (O&O estimate) <sup>2</sup>
• Elasticity of terrestrial TV advertising	<i>varies<sup>1</sup></i>	-3.8
• Reduction in revenue for rival terrestrial channels	<i>varies<sup>1</sup></i>	£1.0m
• <b>Total impact of BBC4 on rival channels</b>	<b>-£1.0m to -£2.0m</b>	<b>-£1.4m</b>
<b>Overall impact across all BBC channels</b>	<b>-£3.8m to -£9.4m</b>	<b>-£4.8m</b>

(1) O&O use three different sets of elasticity values to establish a range of possible impact. This range is reflected in the 'Total impact on rival channels' line

(2) Based on a conversion of commercial viewing to impacts, as implied by O&O on p.68

Source: Spectrum

## Impact on commercial radio revenues

### Overall impact on commercial radio revenues

A.27 O&O quantify the overall benefit to commercial radio from increased digital listening at around +£9 m per annum. This is based on an estimate of the increased number of commercial impacts delivered to the commercial sector from increased uptake of digital services driven by the BBC's new services. O&O's estimate is broadly in line with the expectations of the commercial sector. It derives from the following:

- Since commercial radio represents a greater share of available choice on digital radio, digital take-up increases commercial radio's share of listening. This raises commercial stations' advertising impacts on revenues.
- Digital radio also facilitates the creation of quasi-national brands which make commercial radio more attractive to advertisers.
- Promotion of DAB will help maintain the market positions of UK stations – in comparison, on the internet and digital TV platforms, UK operators may face greater competition from low cost 'juke box' style services.

A.28 In assessing the impact of the BBC's new services on radio advertising revenues, O&O used the elasticity of -3.5 because it was between:

- O&O's estimate of -5.0 (i.e. a 10 per cent fall in impacts reduces advertising revenue by 8 per cent)
- CRCA assessment of elasticity of -2.5 (i.e. a 10 per cent reduction in impacts reduces revenue by 6 per cent).

A.29 O&O estimate that the BBC new services are responsible for 50 per cent of digital radio growth and hence 50 per cent of the resultant benefit. The rationale is as follows. The BBC's new services capture 18 per cent of listening to new digital services. This figure is then scaled up to 50 per cent because:

- the BBC has played an important role in driving DAB and has also contributed to digital radio's penetration on TV platforms.
- Listening and survey evidence suggest that cross promotion of digital radio in general and the attractiveness of the BBC's new digital radio services have both made a significant contribution to digital radio take-up, particularly on DAB.

A.30 Spectrum, however, challenge O&O's estimate that the BBC is responsible for 50 per cent of digital radio for two reasons:

- Firstly, whilst new BBC services capture 18 per cent of listening to new digital services, the new BBC services capture only 3 per cent of total digital listening. Using O&O's scaling would result in attributing just 8.3 per cent of new commercial impacts or +£0.75m in revenue to the new BBC digital services.
- Secondly, O&O's assertions regarding the importance of the new BBC services to digital adoption and the role played by the BBC's cross promotional activity have been overstated. At the extreme, if the BBC's new digital services contribution to increased commercial impacts was said to be in line with its share of digital listening at 3 per cent, the overall benefit would be just under +£0.3m per annum.

A.31 As with digital TV, it is hard to put a precise figure on the influence of the BBC's new services. Our judgement is that the BBC played a key role in the early days of digital radio development but that, in view of the audience success of the commercial stations, it is probably now over-stating the BBC's influence to claim that it is responsible for half of DAB growth.

A.32 Spectrum's analysis suggests the overall impact could be lower at -£0.9m because they attribute less of the overall benefit from digital radio to the BBC. The Spectrum analysis may be summarised by the following table. The table below shows the future impact of the BBC's new digital radio services.

**Exhibit 33:** Sensitivity analysis of total impact of new BBC radio services on commercial revenues

	O&O estimate	Spectrum estimate
Impact on overall commercial digital economics	+£9.0m	+£9.0m (O&O estimate)
Share attributed to the role of the BBC digital stations	50%	8%
<b>Impact on overall commercial digital economics from BBC digital stations</b>	<b>+£4.5m</b>	<b>+£0.8m</b>
<b>Direct cash flow impact upon rivals from BBC digital stations</b>		
• BBC 6 Music	-£0.3m	-£0.3m (O&O estimate)
• BBC7	-£0.15m	-£0.15m (O&O estimate)
• 1XTRA	-£0.5m	-£0.5m (O&O estimate)
• Asian Network	-£0.15m	-£0.15m (O&O estimate)
• Sports Extra		
Sub-total	-£1.6m	-£1.6m
<b>Net financial impact</b>	<b>+£2.9m</b>	<b>-£0.9m</b>

Source: Spectrum

**Specific impact on commercial radio revenues**

A.33 O&O assess the specific negative impact of the new radio stations on rivals' advertising revenues to be around -£1.6m. This can be broken down as follows:

- BBC 6 Music is estimated to have an average weekly audience of 155,000 listeners and to have taken 23m listening hours a year (75 per cent of its audience) from commercial stations resulting in a negative impact of between -£260,000 and -£340,000. Total loss to all digital services would be unlikely to exceed -£120,000.
- BBC 1 Xtra obtains a weekly audience of 248,000 and is estimated by O&O to have taken (70 per cent of its audience) 38m listening hours a year from commercial stations resulting in a loss of advertising revenue between -£440,000 and -£560,000.
- BBC Asian Network obtains a weekly audience of 360,000 and takes about (40 per cent of its audience) 45m listening hours a year from commercial stations resulting in a negative impact of between -£500,000 and -£670,000
- BBC 7 obtains a weekly audience of 267,000 and is estimated to have taken 17m listening hours a year (30 per cent of its audience) resulting in an advertising revenue loss of between -£150,000 and -£250,000.
- BBC Five Live Sports Extra obtains 257,000 listeners per week – O&O estimate it has taken 12m listening hours per annum (about half its audience) from commercial radio which amounts a reduction in commercial advertising revenue of between -£150,000 and -£180,000.

A.34 Spectrum did not produce revised analysis on the basis that there were no alternative elasticity estimates available for such analysis.

- A.35 None of the BBC's new radio services are estimated to take more than they give to the commercial sector. For some commercial digital radio services, the net financial impact may be slightly negative (e.g. Oneword and some of the many services in the same market segment as BBC 6 e.g. Planet Rock, Passion for the Planet, Storm). However, according to O&O, "in no case has the presence of a BBC service been likely to be the only or even prime determinant of commercial success or failure".<sup>56</sup>
- A.36 In future, O&O estimate that this detriment will grow to +£8m.

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<sup>56</sup> O&O The Market Impact of the BBC's Digital Radio Services A Report for the BBC's Submission to the DCMS Review March 2004 p7.