



Market definition

Annex 6 to pay TV market investigation second
consultation

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Contents

This annex contains a series of appendices which provide supporting evidence and greater detail on some of the issues raised in our assessment of market definition (section 4 of the main consultation).

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Appendix 1

The impact of the ‘cellophane fallacy’ on market definition

- 1.1 In section 4 of main document we set out our general approach to market definition and discuss the implications where current prices are above competitive levels (known as the ‘cellophane fallacy’¹). In this appendix we set out our concerns more fully: we discuss the implications of ‘scarcity rents’ on upstream prices and consider evidence that prices in the pay TV sector are currently above competitive levels.

Summary of Ofcom’s view on the impact of the cellophane fallacy

- 1.2 In order to understand the scope of the relevant markets, the OFT’s guidelines state that the Hypothetical Monopolist test (HMT) should be performed with prices held at competitive levels². If an undertaking has already raised prices above competitive levels we would expect to observe high levels of switching in response to a further price increase, as consumers would switch to products even though they are relatively poor substitutes. If we were to assess markets based on observed switching in this case, markets would be drawn excessively broadly.
- 1.3 In our December Consultation we said it can be difficult to observe ‘competitive’ prices in broadcasting markets. In particular a simple comparison of prices to marginal costs is unlikely to be informative because broadcasting markets have high fixed costs (and very low marginal costs) and are two-sided. This means that the relationship between marginal cost and price does not necessarily inform whether prices are set above competitive levels.

Respondents’ views on evidence of prices being above competitive levels

- 1.4 Sky identified two reasons why upstream prices may be above marginal costs. First it noted that media markets are characterised by ‘scarcity rents’. It noted that:

“[t]he media sector is based on the creation of unique assets from which the potential returns exceed the opportunity cost of the inputs used to produce them – for example, film scripts, films, television series, and sports competitions. Such returns are the rewards to those with the unique skills and talent that make the resulting products so appealing to consumers – for example, sports clubs, football and movie stars, writers and directors.”³

- 1.5 It also identified other economic rents which can accrue to upstream suppliers with market power. For example, Sky uses the international supply of diamonds which is controlled by a small number of companies as an example of an upstream market where the suppliers have market power to set upstream prices above competitive levels⁴.

¹ The cellophane fallacy was first highlighted as a competition concern following the controversies which arose as a result of the case involving producers of cellophane *US v Du Pont* 351, U.S. 377 (1956).

² OFT Market definition guidelines paragraph 5.4.

³ Sky response Annex 2 paragraph 1.12.

⁴ Sky response Annex 2 paragraph 1.14.

- 1.6 Sky proposed that evidence of upstream rents (whether resulting from scarcity value of unique upstream assets or the possession of upstream market power) should have no bearing on the assessment of relevant downstream markets, and that an assessment of markets should therefore take current input costs as given.
- 1.7 Sky argued that unless Ofcom finds strong and compelling evidence that current prices are above competitive levels we should assume that current prices are at competitive levels. Sky also stated that our analysis of profitability suggests that prices are at competitive levels at the retail and wholesale levels as we did not find evidence that Sky was earning excessive profits.

Ofcom's current view

The impact of upstream prices that are above competitive levels

- 1.8 The OFT market definition guidelines state that “the prices of products outside the hypothetical monopolist’s control are held constant *at their competitive levels*” (emphasis added). Therefore, if we consider that upstream input costs could be above ‘competitive’ levels and we took upstream input costs as ‘given’ in the HMT analysis, we would be in danger of drawing markets excessively widely.
- 1.9 Ofcom agrees with Sky that the presence of upstream ‘scarcity rents’ associated with unique skills should have no bearing on downstream markets. This is because scarcity rents can be considered the ‘competitive’ price for someone possessing unique skills or talent that are highly valued by consumers.
- 1.10 However Ofcom disagrees with Sky’s proposition that a high upstream price resulting from upstream market power (for example, market power derived from the collective selling of all substitutable content within narrow upstream content markets) should be taken as being the ‘competitive’ upstream price.

Evidence that prices are above competitive levels

- 1.11 We have assessed whether current prices may be above competitive levels using a number of sources of evidence. This includes our assessment of Sky’s profitability, an examination of wholesale margins for Sky’s premium channels, and finally consideration of whether upstream prices may be above competitive levels.

Sky’s aggregate profitability

- 1.12 The existence of supernormal profits at either retail or wholesale level would provide an indication that prices are likely to be above competitive levels. However, our assessment of whether Sky as a whole earned excessive profits was inconclusive⁵. The results were consistent with either normal profits or the presence of supernormal profits, depending on the assumptions used in the analysis.

Wholesale margins

- 1.13 We have also examined margins on the wholesale supply of premium sports and movies channels⁶. High margins, relative to relevant benchmark companies might be evidence that wholesale prices are above competitive levels. We found that gross margins could be in the region of [x<] % for the wholesaling of Sky Sports channels and [x<] % for the wholesaling of Sky Movies channels, and operating margins for

⁵ See section 7 of the main document and annex 9 for full details.

⁶ See section 6 of the main document and annex 9 for full details.

Sky's wholesale premium channel business (combining both sports and movies) may be around [x]%, compared with a figure of around 20% for Sky's pay TV business as whole. While not conclusive, these margins appear high for an asset-light wholesale channel business.

Why upstream prices may be above 'competitive' levels

- 1.14 Our analysis of Sky's profitability is inconclusive – it neither confirms that wholesale and retail prices are above competitive levels, nor confirms that they are *at* competitive levels. However, it is possible – and indeed likely – that some of the economic rents associated with exploiting content in a narrow market flow upstream to the rights providers. Under this scenario, downstream prices would still be above 'competitive' levels, but there need be no evidence of excessive downstream profitability.
- 1.15 A number of previous findings from other competition authorities⁷ have found that rights to show certain types of content are in narrow markets and that the joint selling of these rights can lead to competition concerns downstream.
- 1.16 With respect to FAPL, the Commission Decision on the joint selling of media rights⁸ found that TV rights to premium football events that are played regularly throughout the year were themselves a relevant market. Where these rights are jointly sold, the seller may be able to extract rent from the buyers and ultimately consumers. Therefore, even if we could conclusively say that excessive profits were not being made⁹ at the retail or wholesale level, it would not necessarily imply that (retail and wholesale) prices of packages containing football from FAPL teams from competitions played throughout the season are constrained to the competitive level.
- 1.17 With respect to movies rights, Sky is currently the sole aggregator of movies from the Major Hollywood Studios in the first pay TV window. There have been several findings from other competition authorities that consider that the upstream provision of movies in the first pay TV window is in a narrow content market¹⁰. This implies that, by aggregating the rights from all Major Hollywood Studios, a wholesale channel provider is able to dampen the competition that would otherwise exist at the wholesale level between competing Core Premium Movies channels. Dampening competition in this way is likely to increase enable the wholesale channel provider to extract greater rents from retailers and ultimately final consumers.
- 1.18 Sky negotiates with the Major Hollywood Studios none of which has a market share (measured by UK box office receipts) of over 25%¹¹. The studios therefore operate in a reasonably competitive upstream market for the provision of film content to broadcasters. This might suggest that any rents associated with the aggregation of film content within a narrow market would remain downstream.

⁷ For example, Commission decision COMP C.2-37.398 Joint selling of commercial rights of the UEFA Champions League, or Commission decision COMP/C.2/37.217 Joint selling of media rights of the German Bundesliga.

⁸ Case COMP/C-2/38.173.

⁹ For the reasons set out in paragraphs 1.12 and 1.13 we can not conclusively whether excess profits are being made by Sky.

¹⁰ For example, Commission decisions, Case No COMP/M.3595 - Sony / MGM (2005), Case No COMP/M.2050 – Vivendi / Canal+ / Seagram (2000), or COMP/M.2876, Newscorp/Telepiù (2003).

¹¹ Source: <http://www.boxofficemojo.com/intl/uk/yearly/?yr=2007&p=.htm>. We have assumed that Warner market share includes box office revenue from Warner Brothers and films produced by New Line cinema (owned by Time Warner), even though New Line films are often distributed in the UK by Entertainment Film, an independent distributor.

- 1.19 In practice, it is likely that the outcome of the negotiations between Sky and the studios is influenced by the fact that Sky negotiates with the studios one at a time, and on a (somewhat) staggered basis. However, we consider that it is likely that a proportion of the rents created by dampening competition at the wholesale level are shared with the Major Hollywood Studios. It requires strong assumptions for a rights holder to receive none of the rents created by its rights (namely that the buyer, i.e. the wholesale channel provider, has a position of absolute strength in any negotiations).

Ofcom's conclusion on the cellophane fallacy

- 1.20 The cellophane fallacy means that high switching in response to a price rise could be consistent with narrow markets, as consumers switch to products that would not be considered good substitutes if prices were at 'competitive' levels.
- 1.21 Some previous findings give us reason to be cautious about the presence of the cellophane fallacy in these types of markets. It can be difficult to observe whether prices are above competitive levels. This suggests to us that wholesale prices may well be above competitive levels. In practice, we observe high margins for Sky's wholesale channels and aggregation of a large proportion of relevant content. In any case, aggregation of rights from narrow upstream content markets can mean that clear evidence that Sky is only earning normal profits from the wholesale of premium channels would not be sufficient to argue that prices of those channels are at competitive levels. We should therefore be alert to the risk of cellophane fallacy pricing when drawing conclusions on market definition.
- 1.22 We therefore have good reason to be cautious when drawing conclusions from switching evidence, and consider a range of evidence alongside consumers switching at current prices to assess the relevant markets. This approach is consistent with respondents' views that analysis of relevant markets should draw on a wide range of evidence.

Appendix 2

Defining markets with bundled products

2.1 In section 4 of our consultation we set out our overall approach to defining markets. In this appendix we present in more detail our approach to defining markets which include product bundles (such as groups of basic-tier channels and premium channels). We report comments we received from respondents to our December Consultation and set out our current position.

Approach in the December Consultation

- 2.2 There is a considerable amount of product bundling in TV markets. Programmes or other content are bundled into channels; channels are bundled into packages which are retailed to consumers. For example, Sky's 'top-tier' package contains 159 channels, including 141 basic-tier channels and 18 premium channels¹². Furthermore, subscribers can choose from a wide range of product bundles (including both TV and other services). For example Sky states that it retails 1,764 different product bundles to consumers on its DSat platform¹³.
- 2.3 The presence of bundling can create practical problems when assessing relevant markets. When considering a competition issue, theoretically, the Hypothetical Monopolist Test (HMT) analysis should begin with the narrowest possible focal product and iteratively widen the candidate markets. Potentially, each individual product bundle or even each individual element of a bundle could be within a separate market and merit a separate application of the HMT.
- 2.4 Bearing in mind that assessment of markets is not an end in itself but a step to identifying competitive constraints on suppliers in the markets, the practical application of the HMT necessarily involves judgements, first, in grouping together differentiated products which are likely to be within the same market and, second, in assessing whether product bundles should be considered as separate elements (or groups of elements) or as a single product bundle. The starting point for the HMT will depend on the specific competition issues being investigated.
- 2.5 Given the complexity of products in the markets our starting point was that (i) different basic-tier packages may be differentiated products within a distinct market (ii) packages containing premium movies channels may be differentiated products within a second distinct market (iii) and packages containing premium sports channels may be differentiated products within a third distinct market. We then separately assessed the competitive constraints on each of the three groups of products.
- 2.6 When assessing markets for premium packages which contain both premium channels and basic-tier channels we took the product bundles that consumers buy as focal products for our investigation. We did not separately assess markets (and market shares) for the individual basic and premium elements of the premium package.
- 2.7 We took this approach for two reasons. Firstly, as it is not possible to buy Sky's premium channels without also buying a basic package, it is difficult to observe demand for the premium and basic elements; secondly, it would also be difficult to assess market shares for the individual elements of the product bundle.

¹² Source: Sky response Annex 2, paragraph 3.11. Excludes HD channels. Additionally subscribers will be able to access FTA or Free to View (FTV) channels.

¹³ Sky response paragraph 8.3.

Respondents' view of our approach to defining markets with bundled products

- 2.8 BT, Virgin Media, Top Up TV and Setanta considered that our approach to defining markets for basic-tier TV when bought in a bundle with premium channels was wrong. They considered that the basic and premium elements to a retail bundle should be considered separately for the purposes of market definition and assessing market power. While they agreed that FTA TV did not impose a strong competitive constraint on basic-tier TV, they argued that our analysis considerably understated Sky's market share for the retail supply of basic channels (which are supplied on a stand alone basis or within a basic and premium bundle).
- 2.9 BT and Virgin Media both also contended that Sky is able to exercise considerable buyer power when licensing channels to be retailed on Sky's DSat platform.

Current view

- 2.10 We accept that taking a narrower set of focal products (such as the basic and premium elements of the bundle) might lead to narrower retail markets with different market shares. However, we do not consider that an alternative approach would have radically altered our provisional conclusions on market definition. In the case of basic-tier TV, in our December Consultation we found that FTA TV probably acts as a strong 'out of market' constraint on the retailing of basic-tier TV, so a high market share might not necessarily lead to a presumption of dominance. We assessed market shares for the retail of premium products in a number of different ways¹⁴ and found the results were not sensitive to the particular approach to market definition. Our assessment of wholesale markets was unaffected by our approach to defining retail markets. The assessment of Sky's buyer power in relation to basic-tier channels is also unaffected by the approach taken.
- 2.11 Furthermore, the specific issue about bundling of basic and premium content only arises in the context of retail market definition, while our current focus is on wholesale markets for premium content¹⁵. Although retail markets are relevant to our assessment of wholesale markets, our potential competition concerns do not require us to reconsider the issue of retail market definition. We note that our approach to defining wholesale markets remains the same as in the December Consultation.

¹⁴ December consultation Appendix 13 paragraphs 5.17 and 5.54.

¹⁵ See section 4 of the main document for full details.

Appendix 3

Observed consumer response to price rises

3.1 In section 4 of the main document we report analysis on the observed response to past price changes. The level of consumer switching in response to price changes is an important factor in defining markets. High switching in response to price changes implies broader markets, and low switching implies narrow markets. In this appendix we set out our analysis of observed responses to past price rises in more detail.

Summary of analysis reported in the December Consultation

3.2 In the December Consultation we reported an analysis of the impact of changes in retail prices and quality on numbers of subscribers to packages containing Sky Sports or Sky Movies channels on DSat. There are difficulties in interpreting the impact of changes in prices on subscriber numbers. For example, it is not possible to identify the counterfactual of how subscriber numbers would have changed absent a price rise, and how to account for changes in the quality of the product sold. Nonetheless, while it is difficult to draw firm conclusions, evidence of changes in prices, subscriber numbers and the quality of the products in the markets can provide useful information on the extent of competition.

3.3 In the case of Sky Sports channels we found that:

- The (real) price of Sky's retail packages containing Sky Sports had increased since 2000;
- Subscriber numbers had grown since 2000, despite the growth in availability of sport on new FTA digital channels; and,
- The quality of the packages had increased in a number of respects; for example, a greater amount of sports programming broadcast, a greater number of basic-tier channels in the package, and the introduction of new features such as Sky+¹⁶.

3.4 We therefore concluded that the growth in subscriber numbers and prices was, on balance, suggestive that the constraint from other TV services was weak. However, it was difficult to assess the impact of changes in the quality of retail packages so we could not draw firm conclusions.

3.5 In the case of Sky Movies channels we found that:

- The (real) price of Sky's retail packages containing Sky Movies had increased since 2000;
- Subscriber numbers had grown overall between 2000 and 2007, despite the growth in availability of Freeview channels on DTT. However, they had levelled off from 2004 and fallen slightly in 2007;

¹⁶ However we erroneously noted that the number of FAPL football matches on Sky Sports had declined between the 2006 and 2007 seasons whereas it had increased from 88 to 92. The total number of matches retailed by Sky fell over this period as the rights to broadcast 50 PPV matches lapsed. Between 2004/05 and 2006/07, in addition to the 88 games broadcast on Sky Sports, Sky also broadcast a further 50 matches available as PPV or as a 'season ticket'.

- The number of films on Sky Movies channels had remained relatively constant but other features of Sky’s retail bundle could have increased the quality of the retail product.
- 3.6 We concluded that the growth in subscriber numbers and prices was on balance suggestive that the constraint from other TV services was weak, although this was difficult to state with certainty as the quality of the package had increased over time.

Respondents’ views of the analysis

- 3.7 Sky criticised the analysis noting it can be difficult to interpret the impact of price rises because:
- The published retail price is often not what consumers pay for their service. The whole life price that consumers pay for the service includes discounts, charges for related products, set top box costs, installation charges and other factors.
 - We had not adequately assessed the increase in quality of the packages over time. Quality changes could include the nature and characteristics of the products offered or customer service. Sky provided to Ofcom an assessment of changes in the quality of packages that include Sky’s premium channels.
- 3.8 Sky stated that Ofcom assumed that demand was stable over time and failed to acknowledge that demand could be increasing as a result of changes in consumer tastes¹⁷ or marketing effort or changes in the general economic environment.
- 3.9 Sky noted that the real (inflation adjusted) price of its retail packages had been constant or falling¹⁸. For example, it noted that:
- “the price for Sky’s ‘top tier’¹⁹ package had barely changed in real terms over the past four years, and is only marginally higher now than the charge for this package in January 2002” (we estimate the price is now about 7% higher in real terms since 2002).
 - “the charge for Sky’s Dual Movies package has effectively not increased in real terms over the past six years”.
 - “the charge for Sky’s Dual Sports package is around the same level now in real terms as in September 2005” (we estimate it is now about 3% higher in real terms than in September 2005).
- 3.10 BT argued that any assessment of changes in prices or subscriber numbers is subject to the cellophane fallacy.

Ofcom’s current view of observed response to price changes

- 3.11 We agree with Sky that the relationship between prices and subscriber numbers over time is complex and that it is difficult to establish the counterfactual against which to compare the impact of price rises²⁰.

¹⁷ Annex 2, appendix 5, paragraph 5.7.

¹⁸ Annex 2, paragraph 3.64. Sky have since increased the prices of some of their products

¹⁹ We define ‘top tier’ as the package containing Sports Mix and Movies Mix channels.

²⁰ For example: December Consultation, paragraph 4.30 of annex 10.

3.12 Nonetheless, while analysis of changes in prices and subscriber numbers is unlikely to provide conclusive evidence of whether markets should be drawn narrowly or broadly, it can be helpful in assessing the scale of constraints from other services. We have therefore reviewed the evidence of observed consumer responses to past price changes, based on new information supplied by Sky.

3.13 In the following sections we set out our assessment of:

- Changes in the retail prices of packages containing Sky Movies channels or Sky Sports since 2000.
- Changes in the number of subscribers to packages containing Sky Movies channels or Sky Sports since 2000.
- Changes in the quality of Sky's packages:
 - Changes in the quality of Sky Sports channels.
 - Changes in the quality of Sky Movies channels.
 - Changes in the quality of basic-tier packages.
 - Other quality changes.

3.14 We finally conclude on whether the evidence is suggestive that consumers have been price sensitive in response to past price changes.

Assessment of changes in retail prices of Sky's premium packages

3.15 We first assess changes in published retail prices of Sky's premium packages since 2000. We then assess the availability of discounts. We need to interpret price changes with caution where prices may be above competitive levels.

3.16 Figure 1 below sets out the real (inflation adjusted) price of Sky Sports Mix, Sky Movies Mix and the top-tier package – each taken with the top basic-tier package²¹. Since 2000 prices of Sky's top-tier package have increased on eight occasions, the price of Sports Mix has increased on six occasions and the price Movies Mix has increased on seven occasions. Since 2002 however prices have grown more slowly:

- Average annual growth of real top tier prices was about 1.1% per year since 2002.
- Real Sports Mix prices have grown by about 1.8% per year since 2002.
- Real Movies Mix prices are unchanged from the 2002 level.

²¹ Six Mix or Family.

Figure 1 Retail price of premium packages from Sky per sub per month (real 2008 prices)

[X]

Source: Sky response to information request of 12th October 2006 and 22nd October 2007, GDP Deflator series from Office of National Statistics index (series YBHB). All prices are in constant Q1 2008 prices. Prices shown are those taken with the biggest basic-tier package.

- 3.17 Sky has reduced the availability of retail discounts which has had the effect of increasing the effective retail price over the period. Indeed, we understand in 2006 about [X] or [X] of Sky subscribers had a discount deal, whereas by August 2007, only [X] or [X] of subscribers have a discount²². Sky noted that the [X].

Conclusion on prices

- 3.18 Though prices grew in the early part of the decade, the real growth in retail prices for premium packages on Sky since 2002 has been modest. In particular the real price for Sky Movies Mix has barely changed since 2002, the real price of Sky Sports Mix is only [X] % higher than 2006 and the real price of top tier is only [X]% higher than in 2004. However, we note that the reduction in the availability of discounts for premium consumers may have increased the effective price that many consumers pay over the period. Furthermore, where prices are already above competitive levels, a subsequent reduction may mean they are not constrained to competitive levels.

Assessment of changes in number of subscribers to Sky's packages

- 3.19 In this section we first assess growth in numbers of subscribers to packages with Sky Sports channels before going on to consider numbers of subscribers to packages with Sky Movies channels.

Subscribers to Sky Sports packages

- 3.20 As can be seen from Figure 2 below, although there is some seasonality in numbers of subscribers to Sky Sports channels (there is a peak in subscribers [X]), the following trends can be noted:
- Numbers of subscribers to Sky Sports (including top tier) packages rose in the period between 2000 and 2007, though the rate of increase has been slower since 2004. Since then the six month rolling average number of subscribers to packages containing Sky Sports channels has fallen about [X] % from its peak.
 - [X].
 - [X].

Figure 2 Subscribers to packages containing Sky Sports channels

[X]

Source: Sky response to information request of 29th May 2008.

Note: Big basic includes either 5 or 6 mix basic-tier packages, small basic includes 1, 2, 3 or 4 mix basic-tier packages. "Sports Mix" is used interchangeably with "Dual Sports".

²² Source: Third Sky response to Ofcom's questions of 29th May Annex 15, slide 14.

Subscribers to Sky Movies packages

3.21 As can be seen in Figure 3 below, although there is some seasonality in numbers of subscribers to Sky Movies channels, (there is a peak in subscribers in [X]) the following trends can be noted:

- The number of subscribers to Sky Movies packages (including top tier) rose in the period between [X].
- [X].
- The 6 month rolling monthly average is now [X] % lower than the peak ([X]).
- Subscribers are increasingly more likely to take a lower tier basic package.

Figure 3 Subscribers to packages containing Sky Movies channels

[X]

Source: Sky response to information request of 29th May 2008.

Note: Big basic includes either 5 or 6 mix basic-tier packages, small basic includes 1, 2, 3 or 4 mix basic-tier packages.

Assessment of changes in quality

3.22 Sky claims that increasing subscriber demand for its packages between 2000 and 2007 is partly attributable to improvements in the quality of the premium packages. Evaluating changes to quality is a complex process as it is difficult to identify objective measurable indicators of quality. Sky provided to Ofcom detailed evidence which it claimed demonstrated how the quality of its packages had changed since 2001/02. We have assessed Sky's evidence and also considered other evidence such as viewing shares to assess changes in quality.

3.23 We have considered changes in the quality of a number of different elements of Sky's premium packages.

- Sky Sports channels
- Sky Movies channels
- Basic-tier pay TV channels
- Other services provided to subscribers as part of their subscription

Sky's sports channels

3.24 We have assessed the following evidence to consider how the quality of the premium packages retailed by Sky may have changed.

- Audience shares
- The impact of additional programming acquired over the period
- On-screen improvements

- Programming Costs
- Changes to Sky Sports channels' production costs

Audience shares

3.25 For subscribers to a given package, the audience share of the Sky Sports channels within that package can give an indication of relative value that subscribers place on the channels, as increasing audience share for certain channels might indicate that their quality has increased. Our analysis of average audience data from BARB for Sky Sports channels indicates that since 2001 average audience has grown at a faster rate than subscribers to Sky Sports channels²³. Sky Sports channels are therefore relatively more popular among households that subscribe to the channels.

Additional Programming – more sports content

3.26 Sky claims that the addition of valuable new programming to the Sky Sports line up has improved the quality of the channels. This includes the increase in the number of live FAPL games from 60 in 2000 to 92 now, the addition of Champions League football, (including 22 games featuring Premier League teams in 2007/08 season and 81 other games); Premier League Darts (including 59 matches) and Premier League Snooker (including 23 matches)²⁴.

3.27 The improved quality from additional content is to some extent at least offset by the loss of some events from Sky's sports channels. These include Scottish Premier League, England Home matches and US Tour Golf. Sky argues that between 2000 and 2007, the additional content more than offsets the losses.

3.28 Additionally, Sky claims that Sky Sports channels also have increased coverage of other less popular sports that it did not broadcast in 2001 such as the America's Cup sailing, bowls, greyhound racing, hockey, netball, pool, ten pin bowling and volleyball.

Assessment of the impact of additional sport programming

3.29 We have assessed the impact of some of the changes in content found on Sky Sports channels. Figure 4 and Figure 5 summarise some of the key additions to Sky Sports and some of the sports rights that were not renewed between 2000 and 2007, as identified by Sky²⁵.

²³ Ofcom analysis of BARB data 2001 – 2007, DSat average audience for Sky Sports 1, 2, 3 and Xtra, and subscriber data from Sky response to Ofcom information request of 29th May 2008.

²⁴ Analysis of TV Times TV schedules June 2007 - June 2008.

²⁵ Sky points out that this list is non-exhaustive and illustrates some of the changes that have occurred. Sky response to December 2007 consultation Annex 2, Appendix 9.

Figure 4 Non-exhaustive list of major live programming additions to Sky Sports between 2000 and 2007

Additions to Sky Sports programming since 2000	Year first acquired	Previous contract – number of matches	Number of live events/ fixtures per season	Cost of TV rights per year	Duration	Proportion of premium sports subscribers who rate as important ²⁶
Champions League Football	2003	103 live matches 2003-2006	125 live matches – 43 feat. FAPL teams in 2007/8 ²⁷ .	Sky/ITV pay £85m in total ²⁸ . In 2007/8 22 matches broadcast by Sky included FAPL teams, 81 included non-FAPL teams	2006 – 2009	72%
Cricket – Live England International Home Tests	2006	Some domestic + one Test 2003-05 £25m p.a.	7 summer Tests and remaining domestic games ²⁹	£52m (includes all domestic games as well) ³⁰	2006 – 2009	32%
National Rugby League	2007		22 live matches ³¹			18%
Premier League Darts	2006		59 matches in 15 days (2007) ³²			16%
Premier League Snooker			23 matches across 12 days ³³			18%
Championship Football	2002	Unknown	All 75 matches ³⁴	£37m ³⁵	2006 – 2009	50%
For Comparison:						
FAPL ³⁶	1992	2001/2 = 66, 2004/7 = 88	92 live matches	£452m (live matches)	2007 - 2010	75%

²⁶ Proportion of subscribers who rate sport as important (either 6 or 7). Ofcom Sports conjoint research April 2008, Base (1904) See Annex 10 for details. Subscribers were asked to rate each sport or event on a 7 point scale with 1 being unimportant and 7 being extremely important to have as part of their subscription.

²⁷ TV Times June 2007 – June 2008.

²⁸ http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/annex_10.pdf.

²⁹ Ofcom Demember consultation Annex 10. http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/annex_10.pdf.

³⁰ http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/annex_10.pdf.

³¹ TV Times June 2007 – June 2008.

³² TV Times June 2007 – June 2008.

³³ TV Times June 2007 – June 2008.

³⁴ <http://www.independent.co.uk/sport/football/football-league/bbc-wins-rights-to-show-championship-from-2009-399249.html> (excludes Carling Cup and Johnstone's Paint Trophy matches).

³⁵ http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/annex_10.pdf.

³⁶ All data from http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/annex_10.pdf.

Figure 5 Non-exhaustive list of major live programming no longer featured on Sky Sports between 2000 and 2007

Losses of content from Sky Sports	Date lost	Proportion of premium sports channel subscribers who rate as important ³⁷ .
Scottish Premier League	2002 ³⁸	35% (“Scottish League Matches, European Leagues”)
England international home football	2004 ³⁹	71% (“International matches including European Championships or World Cup” - not just friendlies)
US Tour Golf	2006 ⁴⁰	23% (The US Open)
Rugby Union - England Six Nations (three matches)	2002 ⁴¹	38% (“Six Nations Championship of Rugby World Cup”)
Australian Rugby League		
NFL Europe		12% (“American Football/Baseball”)
Pay Per View (PPV) football rights Note the PPV matches were not part of Sky Sports	2004	

3.30 As a result of the changes to the rights held by Sky, its programming hours have also changed over the period. Live broadcast hours have increased by [X] from 2001/02 to 2006/07 and now equate to more than [X] of all broadcast hours, while highlights programming has also increased by [X] in the same period⁴². Sky illustrated the change in live broadcast hours in Figure 6.

Figure 6 Hours of live programming on Sky Sports

[X]

Source: Sky response to information request of 29th May 2008. [X].

Summary of content changes to Sky Sports channels

3.31 Though Sky point out that there have been numerous content changes since 2002 we can summarise the importance of some of the ‘key’ additions to Sky Sports’s portfolio of rights as follows.

³⁷ Proportion of subscribers who rate sport as important (either 6 or 7). Ofcom Sports conjoint research April 2008, Base (1904) See Annex 10 for details. Subscribers were asked to rate each sport or event on a 7 point scale with 1 being unimportant and 7 being extremely important to have as part of their subscription. See annex 10 for details.

³⁸ <http://www.telegraph.co.uk/sport/main.jhtml?xml=/sport/2002/04/08/sfnsc09.xml>.

³⁹ Lost live rights in 2004, still had delayed and highlights rights in 2004-2008 period.

http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/annex_10.pdf.

⁴⁰ <http://www.guardian.co.uk/media/2006/dec/18/mondaymediasection.sport>.

⁴¹ <http://www.independent.co.uk/news/media/bbc-reclaims-six-nations-rugby-from-sky-with-pound70m-threeyear-contract-648172.html>.

⁴² Sky response to information request of 29th May 2008, [X].

- The additional live **FAPL** games appear are very highly valued, measured by the regular high audiences (averaging over 1 million per match last season), the importance subscribers place on the programming within their subscription, and the cost of acquiring the rights.
- Ofcom consumer research indicates that **Champions League**⁴³ is also an important sporting event. However, our analysis of viewing data indicates that average viewing is lower than for FAPL matches. The average Champions League audience across all Sky Sports channels between Q2 2007 and Q4 2007 for matches featuring FAPL teams is almost 740,000, and slightly over 46,000 for matches without FAPL teams.
- **England Test Cricket** is comparatively popular relative to other non-football sport events as 32% of subscribers value it as important.
- **Premier League Snooker** and **Darts** are considered important by fewer subscribers. Only 18% and 16% respectively thought they were very important in their pay TV service. As a result, these sports are likely to have a less significant, effect on the perceived quality of Sky's sport channels.

On screen improvements since 2000

Sky's view on the impact of 'on screen' improvements

- 3.32 Sky has identified a number of ways in which improvements to the quality of sports broadcasting have been made. These included⁴⁴:
- The use of more and better equipment (e.g. by using more cameras to capture more angles and, especially in cricket coverage, special cameras to capture slow motion and infra-red imaging)
 - Multi-match options (introduced in 2006), for example, on the last day of the Premiership season, viewers could watch three matches simultaneously on a split screen, and during the Champions League group stage, viewers could select and switch between eight simultaneous live matches.

Ofcom's view on the impact of on screen improvements

- 3.33 We acknowledge that technological improvements are likely to enhance the viewer experience. Similar improvements are found on programming on FTA or other channels. For example the BBC's coverage of Wimbledon includes 'Hawk-eye' which graphically shows line calls, and the 'Snickometer' was used during cricket coverage on Channel 4 to track the ball past the bat. We are not therefore persuaded that there has been a significant *relative improvement* in Sky Sports programming (compared with other programming) that would be sufficient to drive subscriber numbers.
- 3.34 We consider that multi-match choice options introduced in 2003 would improve the viewer's value for the channels as it enables subscribers to watch *additional live content* that otherwise would not be available.

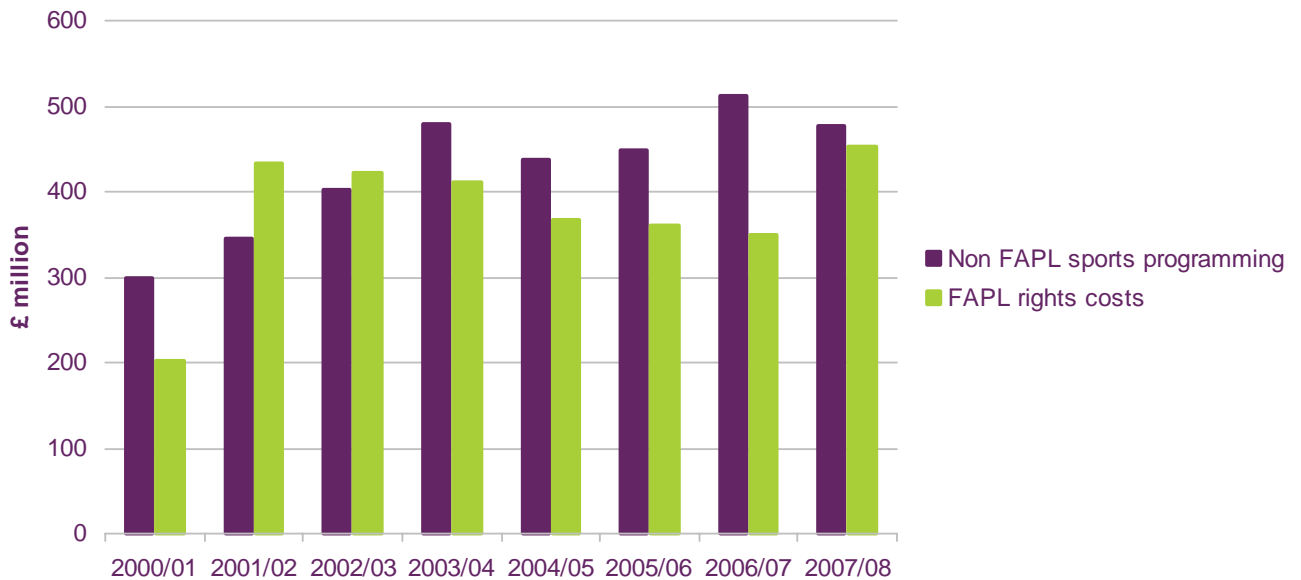
⁴³ Ofcom Sports conjoint research April 2008, Base (1904) See Annex 10 for details.

⁴⁴ Sky response to Ofcom consultation annex 2 appendix 9, paragraphs 9.9 and 9.10.

Programming costs

3.35 We have considered the costs paid by Sky for sports programming. Growing expenditure on programming might indicate increasing quality or range of sports programming. However, costs are not a perfect proxy for quality changes, as costs can be affected by changes in consumer demand or in the competitive environment. Sports programming costs (excluding FAPL) have increased by 60% since 2000/01⁴⁵. Figure 7 sets out Sky's total annual sport programming costs in real terms at 2007/08 prices for the time period 2000/01-2007/08.

Figure 7 Sports programming costs⁴⁶ for Sky 2000/01 – 2007/08 in constant 2007/08 prices



Source: Sky annual reports 2001 to 2008. Costs deflated to constant 2007/08 prices using GDP deflator.

3.36 Sky illustrated the change in expenditure on a sport by sport basis between 2001/02 and 2006/7 (copied in Figure 8 below).

Figure 8 Changes in Sky Sport's Expenditure on Rights from 2001/02 to 2006/07
[X]

Source: Sky response to information request of 29th May 2008, [X].

Notes: [X].

Conclusion on changes in the quality of Sky Sports channels

3.37 There have been a number of changes to Sky's sports channels that could be evidence of increasing quality. In particular:

⁴⁵ Source: Sky Annual Reports 2001 to 2008.

⁴⁶ Note total programming costs not just pay TV but also includes Sky Sports News which is a free to view channel on some platforms.

- Sky has increased its sports coverage in three ways:
 - Increased coverage of competitions previously covered – for example the number of live FAPL matches has increased over the period and Sky now broadcasts more domestic and international test cricket matches (e.g. eight Test matches instead of one).
 - Additional events and competitions for sports already covered – for example, the addition of Champions League football and the Football League as well as Heineken Cup rugby union and Premier League Darts.
 - Additional sports covered – for example Sky now broadcasts live coverage of bowls, greyhound racing, hockey, netball and America’s Cup sailing.
- Sky has also increased its level of coverage by enabling multi-match options at certain times for certain events.
- Sky’s expenditure on non FAPL programming has increased by 60% over the period.

3.38 The only significant sports where coverage has declined over the period are boxing and golf, although Sky has also lost the rights to the Scottish Premier League and Six Nations rugby. Overall, however, the increase in the quantity of events shown is likely to outweigh these losses in terms of the quality of Sky’s sports coverage.

3.39 We note also that over the period the audience share for Sky Sports channels on DSat has grown at a faster rate than subscriber numbers indicating that the channels are relatively more popular.

Sky Movies channels

3.40 We have also assessed changes in the quality of Sky Movies channels since 2000 by considering the following evidence:

- Changes to the mix of films.
- Repackaging into genre-based channel.
- Other programming changes.

Change to the mix of films

3.41 Sky claims to show a richer mix of films on Sky Movies channels than in 2001. It argues that it shows more of the best quality films and fewer lower quality films⁴⁷.

3.42 The films broadcast on Sky Movies can be divided into four categories (A – D) based upon box office takings⁴⁸. Category ‘A’ films are the most commercially successful films and are colloquially known as ‘blockbusters’. Category ‘D’ films by contrast are those which are released directly on Video / DVD rather than in cinemas. Sky Movies also broadcasts a range of library films. Box office takings are not a perfect measure of quality of films because they cannot take into account other factors that affect

⁴⁷ We use the term ‘quality’ to mean average value that consumers place on a film. Some category ‘D’ films might be highly valued by a niche group of consumers.

⁴⁸ [3<]. Source: Sky response to Ofcom’s questions of 17 July 2008.

demand for cinema (for example the price of alternatives, the quality of the cinema experience or general economic demand). Nonetheless we believe that they represent a reasonable proxy for assessing changes in the quality of films shown on Sky Movies channels.

- 3.43 Figure 9 shows Sky's assessment of the number of different types of film broadcast in each category. After adjusting for cinema ticket inflation the number of category A 'blockbuster films' [redacted]⁴⁹. At the same time, the number of category 'B' films [redacted] and the number of category 'C' and 'D' films has [redacted]. As a result, the total number of [redacted].

Figure 9 **Number of unique titles broadcast on Sky's movies channels by category**
[redacted]

Source: Sky response to Ofcom questions of 17 July 2008 [redacted]

Note: Thresholds for each category are increased in line with increases in cinema ticket prices 2000-2005.

Repackaging into genre-based channels

- 3.44 Sky cites the repackaging of its Movies channels as a change that has impacted on quality. Sky reorganised its film channels in April 2007 with the introduction of eight genre-based channels. This was a change from the previous approach, which contained three channels and various time shifted versions of these channels. Sky has claimed that this change was a direct response to customer dissatisfaction about the difficulty of finding the types of films they want to watch, and as a result, has directly improved the quality of the Sky Movies channels as they reflect consumer demand more closely.
- 3.45 We have considered a report commissioned by Sky on the impact of the change. While the change has been welcomed by customers, it appears to [redacted]⁵⁰.

Other changes

- 3.46 Sky also cites a few other changes to Sky Movies which it claims have contributed to increasing the quality of the service. These include a reduction in the delay between cinema release and broadcast, a move to widescreen, PIN protection, and on demand access to films online and via a push VoD service (Sky Anytime)⁵¹.

⁴⁹ Sky states that between 2000 and 2005, average cinema admission prices have increased by approximately 19% in the USA and 14% in the UK. This compares to CPI inflation in the US of approximately 22% (source: <ftp://ftp.bls.gov/pub/special.requests/cpi/cpiiai.txt>) and UK inflation of about 13% measured by the GDP deflator. Sky notes that if nominal prices rise faster than prices of other goods or income we would expect to see a demand response resulting from the increase in nominal prices as consumers switch to relatively cheap alternatives. We agree that theoretically this is possible but note that cinema tickets have increased broadly in line with general inflation so we do not consider that any demand response would be significant.

⁵⁰ Sky response to information request of 18 July 2007 [redacted].

⁵¹ Sky response Annex 2, Appendix 9.

- 3.47 All of these changes are likely to improve the quality of the overall movies service. The introduction of PIN protection allows higher certificate films to be broadcast during the day. By making a different selection of films available on-demand each week through Sky Anytime, the service becomes much more flexible, allowing customers to use it whenever they choose. Increasing the proximity of broadcast to the cinematic release by six months (from 18 months to 12)⁵², is an enhancement to the service.

Conclusion on changes to Sky Movies channels

- 3.48 The various changes to Sky Movies highlighted above suggest that quality has increased in a number of respects since 2000. On the other hand, we note that the total number of films shown has reduced slightly, and this would tend to reduce the quality of the product. On balance, we agree that there is likely to have been a net improvement in the quality of Sky Movies, but we do not believe it is an especially significant change.

Changes to basic pay TV channels

- 3.49 Since 2001/02 there have been several changes made to the basic-tier channels offered as part of the package that consumers buy with their premium channels. These changes include increased investment in third-party channels and programming for Sky owned channels, as well as the introduction of new channels and increased broadcasting hours⁵³.

Increased investment in programming and channels

- 3.50 [redacted]⁵⁴. [redacted]⁵⁵ [redacted]⁵⁶. [redacted]⁵⁷.

- 3.51 [redacted]⁵⁸ [redacted].

Increased number of channels and broadcast hours

- 3.52 Sky has increased the number of channels available in its basic-tier mixes. The number of channels (excluding time shifts) available increased by 50% to 98 between 2001 and the end of 2007 (see Figure 10), while the hours broadcast also increased by [redacted] between 2001 and the beginning of 2007⁵⁹.

Figure 10 Number of channels included in Sky's basic-tier packages

[redacted]

Source: Sky response to information request of 29th May 2008, [redacted].

- 3.53 While the additional channels offer consumers much more choice of content, Figure 11 illustrates that it seems to have had a limited impact on audience share for basic

⁵² Ibid.

⁵³ Sky response to information request of 29 May 2008.

⁵⁴ Ibid.

⁵⁵ [redacted] nominal increase, Ibid.

⁵⁶ Ibid, [redacted].

⁵⁷ [redacted] Ibid, [redacted].

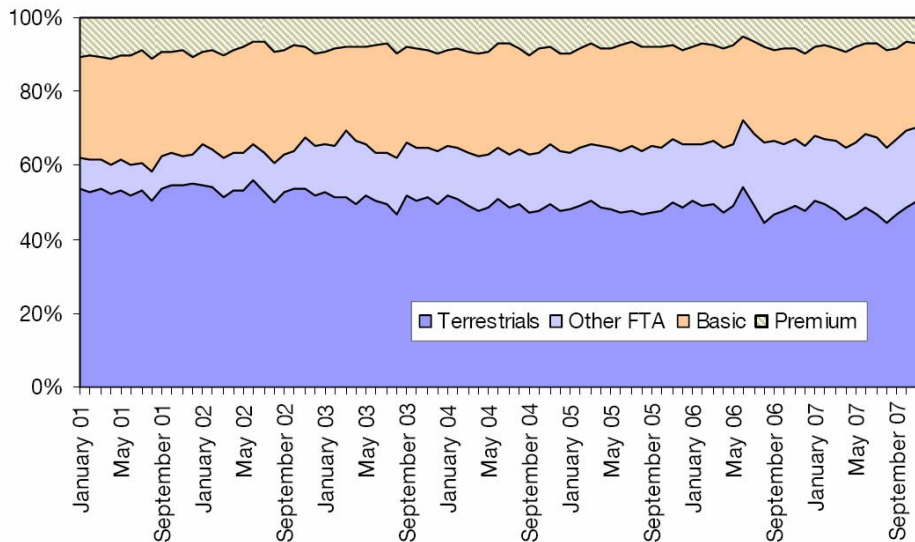
⁵⁸ [redacted] Ibid, [redacted].

⁵⁹ [redacted] Ibid.

channels which has barely changed since 2001. This is in the context of a growing number of FTA channels on DSat.

- 3.54 Even though the additional channels have had a marginal impact in overall audience share for Sky's basic-tier channels, our consumer research indicates that many consumers value access to a range of channels⁶⁰. For these consumers, the additional channels are probably significant improvements to their package.

Figure 11 Audience share in DSat homes



Source: Sky Response Annex 2: Figure 3.

Note: Terrestrial channels refer to the five PSB channels.

Conclusion on changes in basic packages

3.55 The quality of basic-tier channels has changed in a number of respects since 2001:

- The number of channels has increased by 50% to 98.
- The number of multiplex channels⁶¹ has increased from 10 in March 2002 to 26 in 2007⁶².
- Sky has increased spending on a number of its wholly owned channels such as Sky One, particularly for its most popular shows.
- The hours of programming have increased by [X]% over the period.

3.56 These changes all appear to have increased the quality of Sky's basic-tier offering, although overall the changes have had limited impact on audience share.

⁶⁰ For example December Consultation, Annex 14 figure 25.

⁶¹ A multiplex channel usually describes a time shifted version of an existing channel such as Channel 4+1.

⁶² Sky response to information request of 29th May 2008, 'Changes in the quantity and quality of services delivered to subscribers to Sky's Packages that include Sky's Sports channels, 2001/02-2006/07' page 11.

Additional services available

3.57 In addition to the changes in content outlined in the previous sections Sky cited additional services which are available to subscribers as part of their subscriptions that were not available in 2001/02 and which have improved the quality of its packages. These include Sky+, Sky Broadband, Sky Talk, Sky Player, and Sky Anytime Mobile.

Sky+

3.58 Sky launched its Sky+ hard disk video recorder (DVR) in 2001. While initially subscribers were required to pay £10 per month to use it, in 2006/7 the service became free for premium channel subscribers. In addition, there have been changes to the functionality of Sky+ since its launch including an on-demand service and remote record which allows subscribers to select programmes to record using their mobile phones or the Sky website.

3.59 At the end of June 2008, around 41% of all Sky subscribers took Sky+⁶³, and consumer research indicates that subscribers value the service highly. For example in June 2006 69% of those Sky subscribers questioned in an Ofcom survey who claimed to have a DVR rated it as 'key' to their service⁶⁴.

Sky Broadband

3.60 Sky's broadband service was launched in July 2006 and there are currently 1.6million broadband subscribers⁶⁵. There are three broadband packages available for the 72% of households in Sky's network: Sky Broadband Base (which is free to TV subscribers); Sky Broadband Mid; and Sky Broadband Max which cost £5 and £10 per month respectively. Sky offers a more expensive Sky Connect broadband service to households outside its network.

3.61 We have assessed the pricing of Sky's broadband product compared with its rivals (Figure 12). Sky's two pay services appear to be relatively competitive in the broadband market in terms of the available speeds, download limits and price.

⁶³ (UK and Ireland subscribers), Sky Annual Report 2008.

⁶⁴ Ofcom pay TV research phase 1, June / July 2006. Base: All Sky decision-makers who have access to DVR (144).

⁶⁵ Sky Annual Report 2008.

Figure 12 Selection of broadband packages available as at April 2008

	Name	Speed (up to)	Down-load limit	set-up charge	Price per month	Requirements	Minimum contract (months)
Sky	Base	2M	2G	£60.00	£0.00	Must take Sky TV, Selected areas only	12
	Mid	8M	40G	£30.00	£5.00		12
	Max	16M	None	£0.00	£10.00		12
AOL	Wireless	8M	10G		£14.99	Selected areas only	18
BT	Option 1	8M	5G		£15.99		12
	Option 2	8M	8G		£20.99		12
Orange	Home Starter	2M	6G	£30.00	£12.00	Selected areas only	18
	Home Select	8M	None	£30.00	£20.00		18
Talk Talk	LLU areas	8M	40G		£0.00	Selected areas, must take line plus call plan	18
Tiscali	Option 1	8M	None		£12.99	Selected areas only	12
Virgin Media	Medium	2M	None	£30.00	£9.00	Selected areas only	
	Large	4M	None	£30.00	£16.00		

Source: Company websites. Accessed April 2008.

Sky Talk

- 3.62 The Sky Talk telephone service in its current format became available in December 2006 and offers free UK weekend and evening calls (up to one hour per call) for no monthly subscription. It was used by 1.2 million subscribers by the end of June 2008⁶⁶.
- 3.63 We have assessed the pricing of Sky's product compared with its rivals (Figure 13). The monthly price of the Sky Talk package is competitive relative to equivalent services offered by other providers, and is likely to benefit Sky subscribers. This is particularly true given that it accompanies the television service for no additional cost beyond line rental.

⁶⁶ Sky Annual Report 2008 p35.

Figure 13 Selection of home telephone packages available

	Sky	BT	TalkTalk	Virgin	Tesco
Plan Name	Sky Talk Freetime	Unlimited Evening and Weekend Plan 2	Talk UK Evening and Weekend	Talk Evenings and Weekends	Talk 2t
Evening & Weekend UK Landline calls	Inclusive	Inclusive	Inclusive	Inclusive	Inclusive
Plan fee	£0.00	£0.00	£2.65	£3.45	£2.00
Line rental	£10.00	£10.50	£10.50	£11.00	£11.75
Price per month	£11.75	£10.50	£13.15	£14.45	£13.75

Source: www.uswitch.com apart from BT which is from www.productsandservices.BT.com. Both accessed 8th September 2008.

Sky Player

3.64 Sky Player was launched in 2006 and offers its subscribers free and additional pay per view content from Sky and third parties via a PC application. However, it is not clear how popular online content is with customers. Of Sky subscribers with access to the internet, just 12% downloaded TV programmes or films via the internet and an additional 4% watched a simulcast broadcast of a channel or programme over the internet between 30th May and 5th June 2008⁶⁷.

Sky Anytime Mobile

3.65 This mobile phone application extends the on-demand service for Sky subscribers by making particular mobile-suitable content such as alerts and video clips for Sky Movies, Sky Sports, Sky News and Sky 1 available via GPRS for no extra cost.

Conclusion on additional services

3.66 Sky has added a number of services to its retail packages since 2000 which are either competitively priced or included within a subscription to TV services. These include the popular Sky+ DVR service and Sky Broadband. These are likely to have increased the value that consumers place on their package.

Conclusion on consumers' observed response to price changes

Consumer response to increase in the price of Sky Sports channels

3.67 Numbers of subscribers to Sky Sports packages have grown at an average of about [X]% per year since 2000. Real prices have grown in the earlier part of the decade to September 2005 (or 2004 for top tier) but prices have been relatively stable since, although the reductions in discounts available may have increased the effective price that consumers pay.

⁶⁷ Ofcom Online TV Content Survey, (May / June 2008). See Annex 10 for details.

- 3.68 It is difficult to assess the impact of changes to the quality of programming but a greater number of live FAPL games, new programming such as UEFA Champions League, darts and snooker, have probably more than offset the loss of key rights. Additionally the increase in the number of channels in the basic package have improved the quality of the package offered.
- 3.69 Additionally, Sky Sports subscribers now have access to several other features that improve the quality of their service, such as Sky+, Sky Anytime downloads and free or competitively priced broadband.
- 3.70 It is difficult to isolate the impact of retail price changes for Sky's sports channels on DSat. We observe increasing prices and growing subscriber numbers, but also some indicators that quality may have increased. The rises in prices and subscriber numbers may purely reflect the quality changes, but equally may suggest a lack of a strong competitive constraint. We do not regard the evidence as absolutely conclusive in either direction, but consider that the extent of the quality changes may not explain fully Sky's ability to simultaneously increase prices and grow its subscriber base.

Consumer response to increase in the price of Sky Movies channels

- 3.71 Numbers of subscribers to Sky Movies products on DSat grew in the period 2000 to 2004 but have since fallen and the six month average of subscriber numbers is now [X]% below its peak in 2004. Inflation adjusted prices for Sky Movies grew from 2000 to 2002 and have since been relatively stable and prices for top-tier subscribers grew in the period 2000 to 2004 and have been relatively stable since. However, recent reductions in the availability of discounts to subscribers may have increased the effective average price that consumers pay.
- 3.72 Sky now claims to show a richer mix of films on its Sky Movies channels than in the early part of the decade, although we note that the total number of films has fallen. Additionally, Sky Movies subscribers also now have access to more basic-tier programming and a number of other features that improve the quality of their service, such as Sky+, Sky Anytime downloads, free or competitively priced broadband than in the early part of the decade.
- 3.73 By comparison with our analysis of Sky Sports, we believe that the improvements in the quality of Sky Movies are less significant, but so too are the increases in prices and subscriber numbers – indeed the latter have declined over the past few years. On balance, we therefore consider that the evidence of changes to prices, subscriber numbers and quality for Sky Movies suggests a somewhat greater constraint from other products than is the case for Sky Sports, but it is not clear from this evidence alone whether that constraint is sufficient to broaden the market.

Appendix 4

Consumer elasticity analysis supplied by Sky

4.1 In section 4 of our consultation we report data supplied to us by Sky [redacted].

Key results [redacted]

4.2 The study used sophisticated statistical techniques to control for stated preference bias. [redacted].

4.3 [redacted]. [redacted].

Figure 14 [redacted]

[redacted]

4.4 [redacted].

4.5 [redacted].

Sky's assessment of [redacted]

4.6 [redacted]⁶⁸. [redacted]. Sky argues that the evidence indicates that Sky subscribers are “highly sensitive to price changes”⁶⁹.

4.7 Furthermore Sky argues that the results are likely to understate the level of switching compared with the standard approach to applying the HMT⁷⁰. [redacted].

Ofcom's assessment of [redacted]

4.8 We have analysed [redacted]. [redacted]⁷¹.

Figure 15 Estimated response to a [redacted] price increase

[redacted]

Note: [redacted]

4.9 [redacted]. [redacted].

Figure 16 Estimated elasticity

[redacted]

4.10 We therefore consider that [redacted].

⁶⁸Confidential Sky response, Annex 2, 2.17.

⁶⁹Sky response, Annex 2, 2.17.

⁷⁰Sky response, Annex 2, footnote 54.

⁷¹[redacted].

4.11 Ofcom disagrees with Sky's assertion that [REDACTED].

4.12 [REDACTED].

Ofcom's conclusion on the implications of Sky's [REDACTED]

4.13 [REDACTED].

Appendix 5

Analysis of consumers' preferences for premium sports channels

5.1 In the main document we assess consumer preferences for sports to help understand which products consumers might consider substitutes if the price of premium sports channels increased by a small amount. In this appendix we set out our data on consumers' preferences for sport in more detail. We begin by reviewing our analysis of preferences from the December Consultation and considering respondents' views of our analysis. We then go on to report the results of further research that we undertook in April 2008⁷². We assess consumers' preferences first for football, and then for other sports. We finally consider whether the consumer research indicates how the preferences of price sensitive 'marginal' subscribers are different from those of 'average' subscribers.

Overview of analysis of preferences in the December Consultation

5.2 In the December Consultation we found that live FAPL, which is broadcast exclusively on premium sports channels, is very important to a large number of subscribers. We cited consumer survey evidence that indicated that it was a key feature of premium sports channels and we explained that the price of FAPL rights compared with other sports rights indicates the relatively high value that consumers place on FAPL. For example, rights to 138 live FAPL games for the current season sold for £568m per year whereas rights to the FA Cup, England home internationals, Football League, Carling Cup, Champions League and the UEFA European Championship generated £334m combined⁷³.

5.3 We also set out evidence that the value placed by consumers on live sport is generated by the excitement and entertainment it provides⁷⁴. Survey evidence suggested that consumers have a preference for live matches over non-live broadcasts. This is confirmed by the wide differential in the price of live rights compared with highlights or near live rights. For example, while the live FAPL rights were sold in 2006 for £568m, the delayed rights were sold for just £28 million and the highlights coverage for just £57m. For this reason we did not consider that near live or highlights were a close substitute for live sport programming.

Respondents' views on consumer preferences for sport

5.4 In its response to our consultation the FA Premier League argued that the relative attractiveness of content cannot directly address how consumers would behave if the price of their package increased by a small amount⁷⁵. Furthermore, it argued that the

⁷² Ofcom Sports conjoint research. Base: Premium sports channel subscribers who watch sport at least once a week (1,904) April May 2008. See Annex 10 for details.

⁷³ From the 2009 season we estimate total cost of rights to have increased to about £379m.

⁷⁴ For instance respondents who took part in qualitative research from 2005 indicated that a live game was more valuable because much of the enjoyment is driven by first the uncertainty of the outcome of each match, and secondly an intangible sense of being "part of the action". Once the match is over and the outcome is known the value of watching the match is considerably reduced.

⁷⁵ FAPL response to our consultation paragraph 7.23.

valuation of rights to broadcast matches is irrelevant in the assessment of retail markets⁷⁶.

- 5.5 Sky argued that our analysis erroneously focused on the preferences of the average consumer rather than the preferences of consumers most likely to switch in response to a price rise (known as the toothless fallacy)⁷⁷. It was unlikely to be helpful in understanding which products marginal consumers would consider a substitute for the focal product.

Ofcom's current view of evidence presented in our December Consultation

- 5.6 While we agree that the ranking of products by value does not directly address how consumers substitute to different products (particularly as products are priced and packaged in different ways), we disagree with the FA Premier League that analysis of preferences or relative value is not informative when assessing markets. The OFT's guidelines on evidence that can be used to assess relevant markets states that "evidence on how customers rank particular products"⁷⁸ can be informative of how they would view substitutes.
- 5.7 We consider that as sports rights are important inputs into premium sports channels, and that the relative value that broadcasters place on the rights is closely related to consumers' valuation of the rights. Therefore the value of rights can indicate the relative value of different sports.
- 5.8 We agree with Sky that it is important to consider the preferences of 'marginal' subscribers when assessing potential demand side substitutes. We have therefore reassessed our evidence to consider the preferences for more price sensitive consumers.

New consumer research commissioned into preferences for sport

- 5.9 To better understand subscribers' preferences for different sports that they watch, we commissioned a survey of preferences for sport on TV. We asked consumers who watch sport at least once a week about their preferences for up to 25 sports or events typically shown on TV. The results are summarised below and set out in full in annex 10. In paragraphs 5.35 to 5.38 we consider whether the consumer survey evidence indicates whether preferences of price sensitive 'marginal' subscribers are significantly different to those of average subscribers.
- 5.10 We found that subscribers to premium sports channels have very strong preferences for football. Around three quarters of Sky Sports subscribers who watch sport on TV at least once a week consider football very important⁷⁹. Other sports are considered important by fewer consumers.

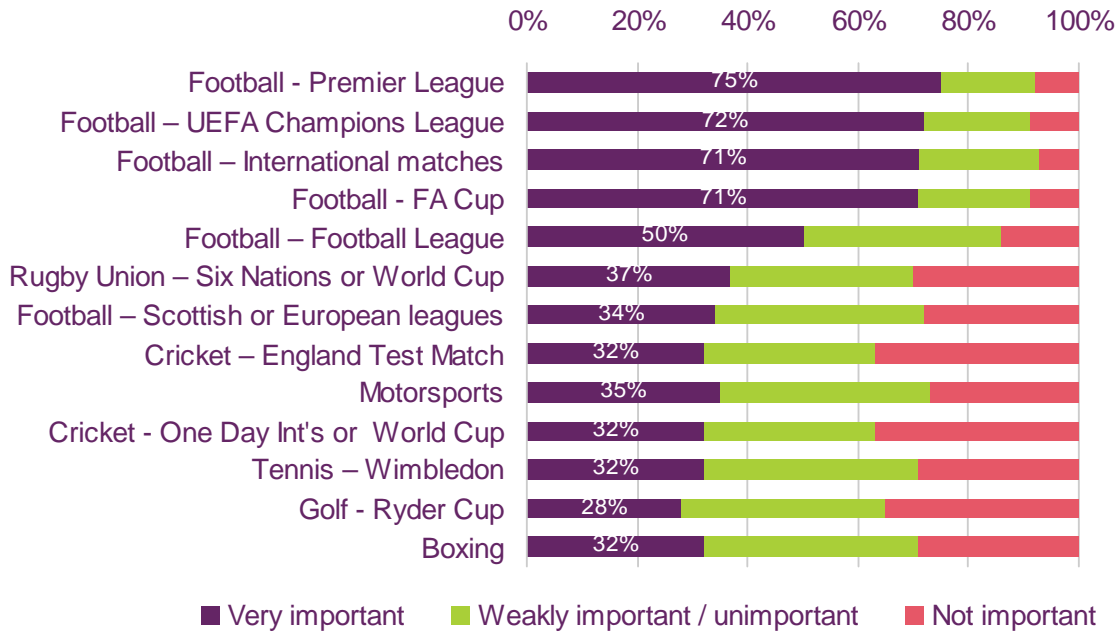
⁷⁶ FAPL response to our consultation paragraph 7.36-7.37.

⁷⁷ For example at Sky response to consultation Annex 2, paragraph 1.63.

⁷⁸ OFT (2004) Market Definition guidelines paragraph 3.7.

⁷⁹ See Annex 10 for details.

Figure 17 % of subscribers who consider specific sports important



Base: All premium sports channel subscribers who watch sport at least once a week (1,904)

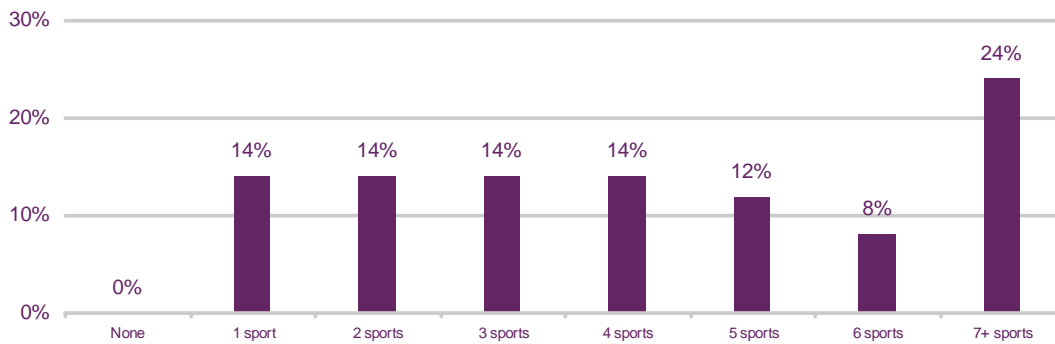
Source: Ofcom sport conjoint research, April 2008. See annex 10 for details.

Note: Subscribers were asked to rate how important sports or events were to their TV package using a 7 point scale, where 7 was extremely important and 1 was not important. Very important includes sports rates as 6 or 7. Weakly important unimportant includes sports rates as 4, 5 or 6. Not important includes sports rates as 1 or 2.

5.11 Generally subscribers have preferences for more than one sport or event as can be seen in Figure 18. For example our survey found that only 14% watch only one sport at least once a week⁸⁰. 42% of subscribers watch between 2 and 4 sports or events each week and a further 42% of subscribers watch more than 5 sports or events each week.

⁸⁰ We asked which sports or events consumers would watch at least once a week when they were being televised.

Figure 18 Number of sports or events that subscribers watch more than once a week



Base: All premium sports channel subscribers who watch sport at least once a week (1904)

Source: Ofcom sport conjoint research, April 2008. See annex 10 for details.

Preferences for football

5.12 Football is highly valued by most subscribers and FAPL is the most valued football competition, although other football competitions featuring FAPL teams are also highly valued. The critical factor for consumers appears to be the ability to watch FAPL teams play high quality fixtures on a regular basis.

- 75% of premium sport channels subscribers consider FAPL to be *very important* (including 63% who consider it *extremely important*)⁸¹.
- 71% of Sky Sports subscribers said live FAPL was one of the top three most important sporting event in making their decision to take a package⁸².

5.13 Other football competitions were also considered important by consumers.

- 72% of premium sport channels subscribers consider UEFA Champions League to be *very important* (including 57% who consider it *extremely important*)⁸³
- 71% of premium sport channels subscribers consider the FA Cup to be *very important* (including 54% who consider it *extremely important*)⁸⁴

5.14 Sky commented that live FAPL comprises only about 2% of all live programming and less than 0.5% of all programming broadcast on Sky Sports channels⁸⁵. However, although it is only a small part of total programming the evidence of consumers' preferences suggests that it is particularly important in their choice of TV service.

⁸¹ See Annex 10 for details.

⁸² See Annex 10 for details.

⁸³ See Annex 10 for details.

⁸⁴ See Annex 10 for details.

⁸⁵ Non confidential Sky response to consultation Annex 2, paragraph 3.106.

- 5.15 We consider that consumers who consider FAPL *very* important would be less willing to switch to alternatives such as other football competitions in response to a price rise. Consumers who do not consider FAPL as *very* important may be willing to switch to alternatives.

Hierarchy of preferences for football

- 5.16 Analysis of consumer preferences for the European Commission found that FAPL supporters have a hierarchy of preferences⁸⁶. Fixtures that feature subscribers' own clubs are of highest interest ("own club matches"), followed by matches for teams challenging for the title, derby matches, title deciders, relegation deciders and matches that determine who will qualify for the Champions League ("Big Matches"), followed by FAPL matches that are not Big Matches or that do not feature subscribers' own team⁸⁷.
- 5.17 Although supporters of FAPL teams prefer to watch their own teams, Ofcom's research for the Commission suggests that FAPL fans would consider matches that featured FAPL teams from other competitions as a potential substitute. Matches that are considered a Big Match, such as a match in the knock-out stage of international competitions, or in the final stages of domestic knock-out competitions, are likely to be closer substitutes than other matches from the earlier stages of the competition or matches that do not feature FAPL teams.

Characteristics of possible substitutes for FAPL

- 5.18 To assess whether consumers who value FAPL highly would consider other events to be substitutes we have examined the characteristics of FAPL and other football competitions on TV. We first consider competitions which feature FAPL teams, we then go on to consider other competitions.

Competitions that feature FAPL teams

- 5.19 There are four tournaments other than the Premier League that in which FAPL teams compete. The table below sets out the number of football fixtures broadcast last season. With 138 live matches, FAPL offers the most games featuring top UK teams each season. Other competitions feature considerably fewer games which include FAPL teams. For example, the UEFA Champions League featured 130 games of which only 44 included one of four FAPL teams.

⁸⁶ Ofcom research for the European Commission into preferences of Premier League supporters <http://ec.europa.eu/comm/competition/antitrust/cases/decisions/38173/en.pdf>.

⁸⁷ For example, a quantitative survey (December 2004 to January 2005) found that of those Premier League fans that wanted to watch more live matches, 75% said they were certain to watch more 'own club' matches, 63% said they were certain to watch more 'big matches' and 34% were likely to watch more 'other matches'. Ibid.

Figure 19 Live football on TV 2007/08 season featuring Premier League teams

Competition	Total number of matches broadcast	Number of broadcast matches featuring FAPL teams	Number of matches broadcast on FTA featuring FAPL teams	Number of matches broadcast on premium channels featuring FAPL teams	Number of unique occasions to watch FAPL teams	
					FTA	Premium
FAPL	138	138	0	138	0	136
Champions League						
- Qualifying	10	4	2	2	2	2
- Post qualifying live matches	125	43	22*	22*	13	14
FA Cup	28	19	14*	6*	14	6
UEFA Cup	49	28	25	3	19	3
Carling Cup	15	13	0	13	0	13
Total	365	245	63	184	48	174

Source: TV Times

Note: *Includes simulcast of final on both FTA and pay TV

5.20 Figure 19 also shows that in the last football season there were 73 games featuring FAPL teams broadcast on FTA TV. As some of these games were broadcast simultaneously there were 48 separate occasions (just over one per week during the football season) when a consumer could watch a match featuring an FAPL team on FTA TV. Importantly these matches are not evenly spread through the season. In fact between August and May there were 11 weeks where no live football featuring FAPL teams was broadcast on FTA TV.

5.21 We therefore consider that while some other football events found on FTA TV might be comparable to live FAPL in terms of quality, they cannot match programming found on premium sports channels in terms of quantity and regular availability of matches throughout the season, even when considered in aggregate. Overall we consider the constraint from live football featuring FAPL teams on FTA TV to be sufficiently weak that it is likely to lie outside the relevant economic market.

International matches

5.22 Events that only take place episodically, for example, the UEFA European Football Championship finals or FIFA World Cup finals, though highly valued, are each only held every four years for a period of about three weeks and therefore are only a weak substitute for events that take place on a frequent basis throughout the season. We therefore consider these events are less good substitutes for FAPL.

5.23 There are also a small number of England international matches played throughout the season broadcast on FTA channels. These are also considered important by consumers, for example 71% of premium sport channels subscribers consider England international matches to be *very important* (including 55% who consider it *extremely important*)⁸⁸. However, in the last year only twelve matches featuring England were broadcast, just six of which were on FTA TV. We therefore consider that these would be a weak substitute for content found on premium sports channels.

⁸⁸ See annex 10 for details.

Other UK leagues

5.24 There are a number of other UK leagues⁸⁹ whose football is broadcast on TV and all of these are broadcast on premium sports channels. However, the quality of the leagues is important, and matches that do not feature Premier League football teams are likely to be more distant substitutes for subscribers who consider FAPL very important. Viewing figures suggest that competitions with higher ranking teams are likely to be a closer substitute than competitions featuring lower ranked teams. For example, the average audience for Coca Cola Football League coverage (broadcast live on Sky) between Q2 2007 and Q1 2008 was approximately 329,000, while the average audience for Blue Square football (broadcast on Setanta) was just 28,000 in the same period. This compares with the average audience for an FAPL match of about 1 million.

Foreign leagues

5.25 There are a range of foreign leagues whose football is broadcast on TV including some on FTA TV. For example the Italian Serie A, broadcast FTA on Five, attracted an average audience of approximately 149,000 between April 2007 and March 2008. The German Bundesliga and the Portuguese Liga (both broadcast on Setanta) attracted an average audience of just 10,000 and 7,000 respectively between quarter three 2007 and quarter two 2008.

5.26 The relatively low value (measured by audience) that consumers place on these competitions indicates that consumers who highly value FAPL would be unwilling to switch to services only featuring matches from other lower ranked leagues or foreign leagues⁹⁰.

Conclusion on preferences for football

5.27 Overall, our survey data and analysis of product characteristics indicate that matches featuring FAPL teams are very important to subscribers. Furthermore, it appears that the FAPL itself is the most important competition, since it features FAPL teams playing matches regularly through the season. It is possible that other football competitions featuring Premier League teams where matches are scheduled regularly though the season may be considered a substitute for FAPL. For example, consumers appear to place a high value on the UEFA Champions League, which includes matches shown on premium sports channels as well as FTA. However, the relatively infrequent matches on FTA TV compared with matches broadcast on premium channels, means that even in aggregate, matches featuring FAPL teams on FTA are unlikely to be in the relevant market.

Preferences for other sports

5.28 Preferences for sports other than football are overlapping and heterogeneous. Across the population of premium sports channel subscribers cricket, golf, rugby union, rugby league and tennis are all popular 'second order' sports after football. Subscribers are less likely to consider these sports very important compared with

⁸⁹ For example, Football League, the Blue Square League and the Scottish Premier League.

⁹⁰ We note that an asymmetric constraint may be possible. Although the constraint on channels that contain live FAPL from channels that contain lower UK leagues or foreign leagues may be weak, channels that contain FAPL may offer a strong constraint on channels that contain lower UK leagues or foreign leagues.

football, but a bigger proportion of subscribers weakly value these sports compared with football.






- 5.29 There is a significant minority of subscribers to premium sports channels who do not consider FAPL very important. In this section we consider whether they would be willing to switch to sport found on FTA channels if the price of their subscription increased by a small amount.
- 5.30 Our research indicates that about 25% of Sky Sports subscribers do not value FAPL or only weakly value FAPL⁹¹. We have assessed the preferences of these consumers to consider whether they would be willing to switch to alternative sport on FTA TV (or on basic-tier TV channels) if the price of their premium sports channels increased by a small amount. We found that 40% of these subscribers consider one of either cricket, rugby union or rugby league very important.

Availability of other sports on FTA or basic-tier TV channels

- 5.31 We have considered how likely consumers who value popular sports other than football would be to find sport on FTA or basic-tier TV a substitute for their favoured sports. Specifically, we have analysed the availability of live cricket, rugby union, rugby league, tennis and golf on TV to assess whether consumers who value these sports highly would be able to access them on FTA TV or basic-tier sports channels. The table below summarises the availability of live cricket, rugby union, tennis, golf and rugby league on premium sports channels and other channels. A fuller analysis is found in appendix 9..

⁹¹ See Annex 10 for details.

Figure 20 Availability of key live cricket, rugby union, tennis, golf and rugby league on TV

	Live coverage on Premium Sports channels	Live coverage on FTA / basic-tier TV channels	Close substitutes available on FTA or basic tier TV?
Rugby Union	Heineken Cup (53 matches) Guinness Premiership (34 matches)	Six nations (15 matches) World Cup (next held in 2011) Magnars League (feat N Ireland, Scotand, Wales) Anglo Welsh Cup / EDF Cup (14 matches)	
Rugby League	Super League (58 matches - Sky) National league (29 matches - Sky)	BBC - Challenge Cup (11 fixtures)	
Cricket	Test cricket (- Sky) One day internationals (- Sky)	None, some Asian tests on Zee or Ary a la carte channels	
Tennis	US Open ATP Cincinnati Masters ATP Montreal Masters Other ATP Masters(Sky)	BBC - three of the four grand slam tournaments . It exclusively broadcasts Wimbledon. And also broadcasts the Artois Tournament (with Eurosport) and some Davis Cup matches.	
Golf	PGA Tour, Champions Tour, Asian tour (Setanta)	British Masters, Scottish Open, Open Championship, Walker Cup, BMW PGA Championship (BBC)	
	World Cup golf, PGA Championship, US Masters, US Open, Ryder Cup, European Tour (Sky)		

 *Many close substitutes available on FTA or basic-tier channels*

 *No close substitutes available on FTA or basic-tier channels*

5.32 Our analysis indicates that there are only limited close substitutes for live rugby union, rugby league and cricket on FTA TV or basic-tier TV. For example:

- Rugby union fans can watch 87 live matches from the Guinness Premiership and Heineken Cup on Sky Sports, but there are only 15 matches from the Six Nations Championship on FTA TV⁹².
- Rugby league fans can watch 77 Super League or National League matches on Sky Sports but only 11 Challenge Cup matches on FTA TV.

⁹² In 2007 ITV also broadcast the World Cup which will next take place in 2011.

- Cricket fans can watch England international test matches and one day cricket internationals on Sky Sports but cannot watch any live matches on FTA TV.

5.33 By contrast, there is a greater range of alternatives to tennis and golf on FTA channels. Subscribers that value these sports highly might switch to view sport on FTA TV if the price of their premium sports channels increased by a small amount.

Conclusion on preferences of consumers who value sports other than football

5.34 Our survey on subscriber preferences found 75% of consumers think FAPL football is very important and that these consumers are unlikely to find close alternatives on FTA TV. A further 10% of subscribers highly value either cricket, rugby union or rugby league for which there are limited alternatives on FTA TV. Hence, while there are some FTA alternatives to golf and tennis, we consider that the number of marginal subscribers to premium sports channels is likely to be low as there are few substitutes for either live FAPL, cricket, rugby league or rugby union on FTA TV. We also found that the majority of consumers value the ability to watch a range of sports.

Preferences of marginal subscribers

5.35 The above analysis sets out subscribers' preferences to identify to which products the generality of consumers might substitute in the event of a price rise. Sky raised a concern that our analysis of sports preferences focused only on the preferences of average subscribers and did not consider preferences of 'marginal consumers', i.e. those most likely to switch in response to a price rise. We have analysed our survey data to consider whether the preferences of marginal subscribers differ from those of infra-marginal subscribers.

5.36 We identify marginal subscribers in our survey⁹³ as those respondents who stated that they would switch services in the event of a small price increase of their subscription. For the reasons set out in the main document⁹⁴, we believe that the survey is likely to overstate the likely propensity to switch given a SSNIP on our focal product (Sky Sports and Setanta Sports channels). This is for two reasons; first the survey of stated response to hypothetical price rises was likely to be subject to significant stated preference bias where consumers overstate their likely propensity to switch. Secondly, much of the stated switching was to products within our candidate market (for example Setanta Sports or to a different Sky Sports package). Nonetheless, we consider that respondents who stated that they would switch in response to a price rise are likely to be among the more price sensitive subscribers.

5.37 We have assessed preferences for football among marginal and infra-marginal subscribers. We found that football was important for about 79% of infra-marginal subscribers and for about 81% of marginal subscribers⁹⁵. We do not therefore consider that the preferences of marginal subscribers for football are radically different from those of infra-marginal subscribers, and we think the conclusions we reached in the previous sections remain relevant.

⁹³ We are not able directly to identify 'marginal' subscribers in our most recent survey of sports preferences and we have therefore assessed how preferences of marginal subscribers are different from 'infra marginal' subscribers from a previous survey – Ofcom pay TV research phase 3, See December Consultation Annex 14 for details.

⁹⁴ See for example, main document paragraph 4.72.

⁹⁵ Defined as either a those who stated football was an important sport or that Premier League, UEFA Champions League, UEFA Cup or Carling Cup were 'must have' events.

- 5.38 Our analysis found that about 8% of respondents live in a household which subscribes to Sky Sports but watches sport less than once per week⁹⁶. We excluded this group from our survey⁹⁷. Around half this group (47%) could be described as 'marginal' or price sensitive subscribers (i.e. said they would switch in response to a price rise). This compares with approximately 31% of *all* subscribers who might be considered price sensitive (though for the reasons set out in paragraph 5.36 this would overstate the actual response to a SSNIP). We acknowledge that price sensitive subscribers who are infrequent viewers of sport may have different preferences from more frequent viewers. However, as they are relatively few in number (4% of all subscribers) even if their preferences are different from those of infra-marginal subscribers it is unlikely to affect our conclusions on the likely substitutes for premium sports channels.

Conclusion on key features of premium sports channels

- 5.39 Overall, our survey data and analysis of product characteristics indicate that matches featuring FAPL teams are very important to subscribers. While there are a number of competitions that subscribers consider important, including four that feature FAPL teams, FAPL itself is the most important competition, since it features FAPL teams playing matches regularly through the season. It is possible that other football competitions featuring FAPL teams where matches are scheduled regularly through the season may be considered a substitute for FAPL. For example, consumers place a high value on the UEFA Champions League, which includes matches shown on premium sports channels as well as FTA.
- 5.40 A critical question for us, however, is whether the football matches featuring FAPL teams on FTA TV are a sufficiently strong substitute for premium sports channels. On balance we consider the relatively low number of matches featuring FAPL teams featured on FTA TV compared with premium sports channels mean that it is likely to be regarded as a weak substitute for live football featuring FAPL teams on premium sports channels.

⁹⁶ Ofcom pay TV research phase 3. See figure 33 of annex 14 of the December consultation for details.

⁹⁷ People who watched sport less frequently were excluded to ensure that individuals who have no interest in sport but who live in a household that pays for Sky Sports channels (because another member of the household values the channels) were not included in the research. See Annex 10 for details.

Appendix 6

Changes in wholesale prices

6.1 In this appendix we examine evidence provided by Sky on changes to the wholesale prices for Sky's premium channels.

Summary of evidence presented by Sky

6.2 In its response to our December Consultation, Sky stated that flat or falling wholesale prices for its premium channels strongly suggest that it does not have market power to set prices above competitive levels, and by implication that markets should be defined broadly. Sky noted that the per subscriber wholesale carriage fees for its packages had been flat in real terms since 2004 and that the price of Single Sports and Movies Mix has declined.

6.3 Furthermore it argued that "given the very significant increases in rights costs, particularly in the case of sports channels, the obvious implication is that margins between costs and prices have narrowed in relation to Sky's channels at the wholesale level over the period"⁹⁸.

Ofcom's view of wholesale prices

6.4 We have examined Sky's claims. We first consider the evolution of wholesale prices over time for Sky's premium channels. We then go on to consider the per subscriber margin over costs for Sky's premium channels.

Evolution of wholesale prices over time

6.5 We cautiously interpret evidence of changes in prices. This is because if an undertaking has market power to set wholesale prices above competitive levels, a subsequent decline in prices might still be consistent with the undertaking having market power.

6.6 We have examined trends in the real wholesale price to Virgin Media (and its predecessor companies) of the most popular premium channels over time (see Figure 21 below). Sky Sports Mix, Sky Movies Mix or Sky Sports and Movies Mix are taken by about [X]% of wholesale subscribers.

- The wholesale price of **Sky Sports and Movies Mix** is [X] in real terms than in April 2002.
- The wholesale price of **Sky Sports Mix** has consistently [X] in real terms since 2002. It is now [X] than it was in 2002 in real terms.
- The wholesale price of **Single Sports** (currently taken by about [X]% of wholesale subscribers), after [X] between 2002 and 2004, [X] and is now [X]% [X] in real terms than its 2002 level.
- The wholesale price of **Sky Movies Mix** after [X] between 2002 and 2004 [X] and is now [X]% [X] in real terms than its 2002 level.

⁹⁸ Sky response Annex 2 paragraph 3.131.

Figure 21 Cable wholesale charges for premium channels (real 2008 prices)⁹⁹

[X]

Source: Sky response to information request of 29th May 2008, Prices deflated with GDP deflator.

Wholesale margin over costs for Sky's premium channels

- 6.7 We have also examined Sky's claim that the wholesale mark-up over programming costs had declined. Other things being equal, if Sky faced significant wholesale competition, we would expect the wholesale mark-up over programming costs to remain constant or decline. The relationship between input costs and wholesale prices is complex, as Sky spreads the fixed costs of production over UK residential and commercial subscribers and Ireland subscribers.
- 6.8 We have assessed a simple measure of the real programming cost per residential subscriber as a proportion of the wholesale price for Sky's most popular wholesale premium packages. As set out in Figure 22 this shows that the cost of rights as a proportion of the wholesale price has declined for the most popular of Sky's premium packages – those take by [X]% of wholesale subscribers (Sports Mix, Movies Mix and Sports and Movies Mix).

Figure 22 Rights cost per subscriber as a proportion of the wholesale price

[X]

Source: Programming costs from Sky's Annual Reports 2001/02 and 2007/08, wholesale prices and subscriber numbers Sky response to information request of 29th May 2008.

Note: the analysis covers only UK and Ireland residential subscribers, not commercial subscribers. Costs are total programming costs expressed on a per UK and Ireland subscriber basis as a percentage of the per subscriber wholesale price.

- 6.9 We also examined the relationship between Sky's marginal costs and wholesale prices over time for its Sky Movies wholesale packages. This is set out in Figure 23 below.

Figure 23 Marginal costs as a proportion of the wholesale price

[X]

Source: Sky annual accounts 2002 to 2007, Sky response to information request of 29th May 2008

Note: We assume that all Sky Sports channel programming costs are fixed and all Sky Movies channel costs are variable with wholesale subscribers

- 6.10 Our analysis does not support Sky's claim that the wholesale margin between costs and prices had narrowed in relation to Sky's premium channels at the wholesale level over the period. In fact the wholesale margins over rights costs have grown over the period.

Conclusion

- 6.11 We have considered whether evidence of changes to Sky's wholesale prices indicates that it is competitively constrained. We note that the wholesale price for Sky Sports Mix packages has increased considerably since 2002, indicating that

⁹⁹ Data sourced from Sky response to information request of 29th May. Real 2008 prices using GDP at market prices deflator.

these packages do not face a strong competitive constraint. The wholesale price of the Sky Sports and Movies Mix is [x] % higher than it was in 2002.

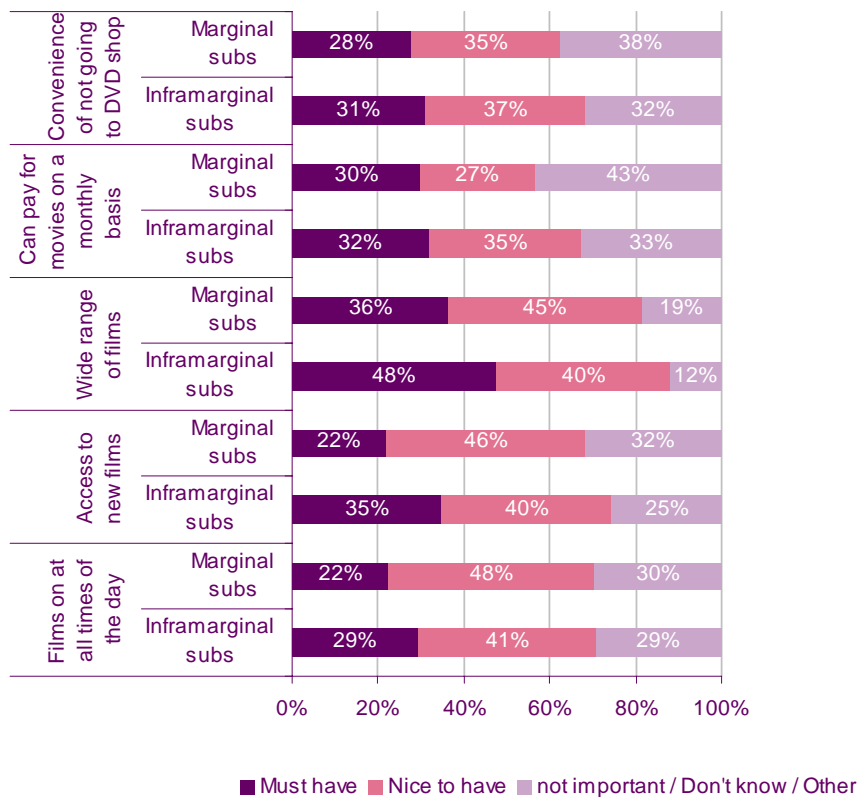
- 6.12 The price of Sky Movies Mix has fallen from its peak and is now lower in real terms than it was in 2002. Falling wholesale prices for Sky Movies Mix channels could be evidence that Sky faces an increasing competitive constraint from other substitutes, although it is not clear that this would be sufficient to reduce prices to competitive levels.
- 6.13 We have also examined the wholesale mark-up over programming costs. While the relationship between input costs and wholesale prices is complex, our analysis suggests a widening wholesale margin over costs. The increasing mark-up over marginal costs may indicate increasing market power in the provision of Sky Movies Mix and Sky Sports and Movies Mix.
- 6.14 We therefore consider that the fall in wholesale prices of packages containing Movies Mix does not necessarily imply a binding competitive wholesale constraint. Rather, the widening gap between average wholesale costs and prices could indicate increasing market power.

Appendix 7

Analysis of preferences for Sky Movies of price sensitive subscribers

- 7.1 In section 4 of our consultation we consider Sky Movies subscribers’ preferences for these channels. This appendix sets out our analysis of preferences of subscribers in more detail. We have further analysed the responses to our own consumer research to identify the features that marginal subscribers consider important to their subscriptions¹⁰⁰.
- 7.2 We found that marginal subscribers placed a lower value on features of premium movies channels than infra-marginal subscribers. Nonetheless, a significant proportion of price sensitive subscribers considered access to a range of films (81%), films on at all times (70%) and access to new movies (68%), as either ‘nice to have’ or ‘must have’ features of their package.

Figure 24 Analysis of preferences of prices sensitive subscribers



Source: Ofcom research Pay TV phase 2, See December Consultation Annex 14 for details.

Base: Sky Movies subscribers (203)

¹⁰⁰ As with our analysis of preferences (paragraphs 5.35 to 5.38) for sports we identify marginal (or price sensitive) subscribers as those who responded that they would switch away in response to a price rise.

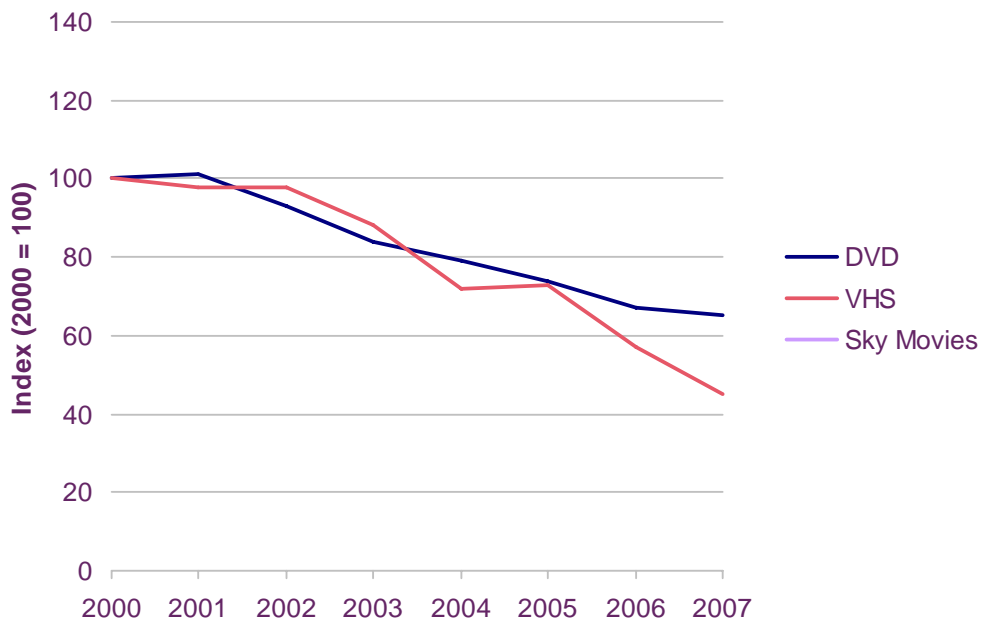
Appendix 8

Sales volume and prices of DVDs, videos and Sky Movies subscribers

8.1 We have analysed changes in prices of premium movies channels and prices and sales of retail and rental DVDs. The prices of DVDs and videos have significantly reduced (see Figure 25 below).

Figure 25 Index of real retail price changes for DVDs, videos and Sky Movies Mix subscriptions

[X]



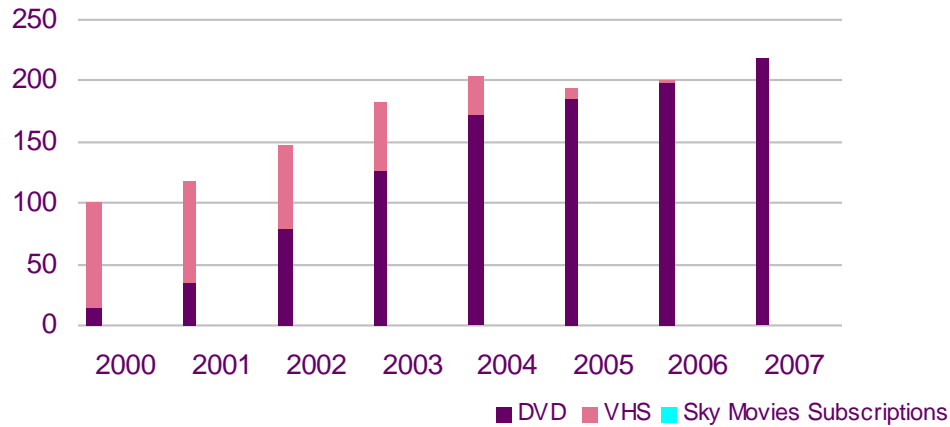
Source: British Video Association (BVA) 2008 year book and Sky response to information request of 29th May 2008. Monthly subscription relates to any retail package containing Movies Mix taken with Family / 6 mix basic on DSat.

Note: Change in value methodology. 2007 value figures are not comparable with 2006 or historic years.

8.2 Sales of DVDs / Videos have increased over the period. Numbers of subscribers to premium movies channels have increased between 2000 to 2004 and have fallen since then (see Figure 26 below).

Figure 26 Index of volume of sales of DVDs, videos and movies subscriptions

[X]

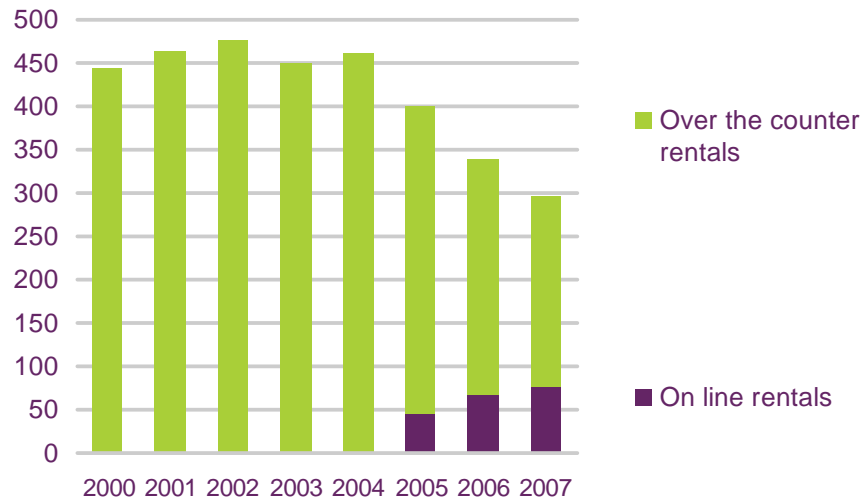


Source: British Video Association (BVA) 2008 Year Book and Sky response to information request of 29th May 2008. Movies monthly subscription relates to subscribers to the Movies Mix or top tier (Sky Movies Mix and Sky Sports Mix) package.

Note: Change in value methodology. 2007 value figures are not comparable with 2006 or historic years.

8.3 Sales of over-the-counter rentals and on-line DVD subscriptions have fallen significantly since 2004. The fall in sales of over-the-counter rentals has been partly offset by a rapid increase in on-line DVD rentals (see Figure 27 below).

Figure 27 Sales of over-the-counter rentals and on-line subscription rentals



Source: BVA 2008 Year Book.

Notes:

Change in value methodology. 2007 value figures are not comparable with 2006 or historic years.

Change in value methodology. 2007 value figures are not comparable with 2006 or historic years.

Appendix 9

Live sport on TV

In the table below we set out some of the channels where it is possible to view live sport and contains a non exhaustive list of sporting events found on the channels.

	Sports channels	Revenue model	Examples of sport found on the channels
Sky premium mix channels	Sky Sports 1	Premium subscription	Football FAPL 92 matches UEFA Champions League (shared with ITV)
	Sky Sports 2		Carling Cup (shared with BBC from 2009) Championship Football (75 matches) England International Football Matches (shared with BBC) Football League matches
	Sky Sports 3		La Liga (Spanish League Football) (120 matches) Wales home internationals
	Sky Sports Xtra		Cricket English domestic and international test Match Cricket England one day internationals 20/20 world Championship County Cricket World Cup
	Sky Sports HD1		
	Sky Sports HD2		Rugby League Super League National Rugby League (22 matches) Great Britain Internationals
		Rugby Union European Cup Rugby Union Heineken Cup Guinness Premiership England internationals Tri-Nations Super 14 (featuring Australian, New Zealand and South African Teams) Currie Cup (featuring South African teams)	
		Tennis Davis Cup Tennis ATP Montreal Masters ATP Cincinnati Masters US Open	
		Golf European Tour US Masters Ryder Cup US Open	

	Sports channels	Revenue model	Examples of sport found on the channels
			<p>World Golf Championship US PGA Championship</p> <p>Other World Darts Championship Premier League Darts (22 matches) A1 Grand Prix Boxing NBA Basketball Premier League Snooker (23 matches) Indy Car Series Tennis Masters Series NFL American Football America's Cup Sailing National Indoor Hockey Finals</p>
Setanta pack channels	Setanta Sports1	Premium DSAT, DTT (Premium / basic tier cable XL)	<p>Football FAPL English home football internationals FA Cup football (2008/09 onwards) – shared with ITV LR Scottish Premier League; Blue Square Premiership; Bundesliga, French Ligue 1, Dutch and Portuguese leagues;</p> <p>Cricket Indian Premiere League</p> <p>Rugby League Magners League rugby; Australian Rugby League</p> <p>Golf US PGA Tour; Champions Tour Asian Tour</p> <p>Other various boxing events; horse racing coverage from the UK and US; various Irish sports; a variety of North American sports (including Major League Baseball, National Hockey League and NASCAR Racing); Indian Premier League cricket competition</p>
	Setanta Sports2		
	Setanta Golf Racing UK Racing World LiverpoolFCTV Arsenal TV Celtic TV Rangers TV	Premium DSAT, (Premium / basic tier cable XL)	
	NASN		
Niche stand alone pay sport channels	MUTV	Premium subscription	
	Chelsea TV	Premium	

	Sports channels	Revenue model	Examples of sport found on the channels
		subscription	
	Realmadrid TV	Premium DSAT, (Premium / basic tier cable)	
Sport channels broadcast within basic tier TV bundles	Eurosport UK	basic tier	Olympics; tennis French Open, US Open and Australian Open; the three major Cycling Tours: Tour de France, Giro (Tour of Italy), and Vuelta (Tour of Spain); Rugby Union – Top 14 (featuring French teams) Snooker - all World Snooker events); Le Mans 24 hour race; and live MotoGP. Olympics
	Eurosport2 UK		
	Eurosport HD		
	Motors TV	basic tier	V8 Supercars, World Superbikes and Formula 3.
	At The Races	basic tier	Shows live and highlights of races from tracks throughout the UK, Ireland and North America, including Ascot, Chepstow and Lingfield Park.
	Extreme Sports	basic tier	
	ESPN Classic	basic tier DSat	Archive sport
FTA sport channels	Sky Sports News	FTA on DTT / basic tier on DSat	
	Setanta News	FTA TV	
	Fight Network	FTA TV	boxing, wrestling and similar sports.
	sportsXchange	FTA TV	
	Rush HD	FTA TV	
General entertainment channels containing sport	BBC (1, 2, 3, interactive)	FTA TV	Football FA cup (final listed) UEFA cup Euro 2008 (final listed) The FIFA World Cup Finals Tournament (2010) (final listed) The Scottish League Cup Final (in Scotland) (only final listed)
			Rugby League The Rugby League Challenge Cup (only final listed) Magners League (BBC Wales)
			Rugby Union Six Nations rugby Anglo Welsh Cup

	Sports channels	Revenue model	Examples of sport found on the channels
			<p>Tennis Wimbledon (only final listed) Artois The French Open tennis tournament Davis Cup</p> <p>Golf The US Masters European Tour golf (live coverage on Saturday and Sunday for BMW PGA Championship, The Barclays Scottish Open, The Quinn Direct British Masters and the HSBC World Match Play Championship) The British Open golf tournament</p> <p>Other The Olympic Games (listed) Horse racing including: the Grand National (listed), The Derby, Royal Ascot and Goodwood The London Marathon</p>
	ITV (1, 2, 3, 4)	FTA TV	<p>Football Euro 2008 The FIFA World Cup Finals Tournament (2010) only final listed UEFA Champions League (shared with Sky) England Football internationals – home competitive matches (2008/09 onwards)</p> <p>Rugby League</p> <p>Rugby Union Rugby Union World Cup (only final listed)</p> <p>Other University Boat Race Tour de France Formula 1 motor racing British Super Bikes US Super Bowl</p>
	Channel 4	FTA TV	<p>Horse racing Newmarket, Newbury, York, Chester and Doncaster, except for those broadcast by BBC Skiing World cup</p>
	five	FTA TV	<p>Football UEFA Cup games Baseball Major League Baseball Basketball National Basketball Association Hockey National Hockey League</p>

Source: information supplied by respondents, analysis of TV schedules June 2007 - 2008

Appendix 10

Critical loss and elasticities

10.1 In this appendix we set out our estimate of the consumer price response that would constrain a wholesaler monopolist. We first explain why the ‘dilution effect’ means that an increase in the wholesale price of a good will have a smaller impact on the retail price. We then set out the ‘critical loss’ of subscribers that would constrain a monopolist wholesaler from increasing prices, and finally we set out the consumer elasticities that would be sufficient to constrain a monopolist.

The ‘dilution’ effect

10.2 Wholesale premium channels are one input to a bundle of goods that a retailer sells to consumers¹⁰¹. If the retailer passes through all of a 10% increase in the wholesale price of premium channels to its customers, the retail price will increase by less than 10%. This is illustrated in the table below. The dilution effect means that a relatively strong consumer response to price increases would be needed to constrain a monopolist wholesaler of premium channels.

Figure 28 The impact of a 10% increase in the wholesale input prices

	Sky Sports Mix	Sky Movies Mix	Sky Sports and Movies
Wholesale price to VM	£[x]	£[x]	£[x]
VM retail price - basic M	£26.00	£30.00	£37.00
VM retail price - basic L	£33.00	£33.00	£40.00
VM retail price - basic XL	£37.50	£37.50	£44.50
10% wholesale price increase	£[x]	£[x]	£[x]
Retail price increase - basic M	[x]%	[x]%	[x]%
Retail price increase - basic L	[x]%	[x]%	[x]%
Retail price increase - basic XL	[x]%	[x]%	[x]%

Source: Sky response to Ofcom's information request of 29th May 2008, Virgin Media website accessed August 2008

Critical loss

10.3 The ‘critical loss’ for a monopolist wholesaler is the percentage of subscribers that would have to switch for a wholesale price increase¹⁰² to be unprofitable. It depends on the variable costs that the wholesaler faces.

10.4 The critical loss can be calculated as:

¹⁰¹ For example, on Virgin Media, if a consumer wishes to buy Premium Sports channels it must also buy other TV services and can choose to buy a range of other services such as phone or broadband.
¹⁰² Assuming the price increase was fully passed through.

$$CL = \frac{S}{1 + S - a} \tag{1}$$

Where $a = \frac{\text{variable costs}}{\text{wholesale price}}$ (2)

and $S = \text{SSNIP} = 10\%$ in our case.

- 10.5 We have assumed that there are no variable costs associated with wholesaling Sky Sports Mix (as all rights are bought on a fixed fee basis) and about [x] per sub per month of variable costs associated with wholesaling the Sky Movies channels. The table below sets out our assessment of the critical loss for wholesalers of Sky Sports, Sky Movies or Sky Sports and Movies packages.
- 10.6 The table below estimates the critical loss factors given a 10% price rise for different products wholesaled by Sky. This is the percentage loss of wholesale subscribers that would be required for a 10% wholesale price rise to be unprofitable.

Figure 29 Critical loss factors

	Sky Sports Mix	Sky Movies Mix	Sky Sports and Movies
Variable wholesale costs	[x]	[x]	[x]
Wholesale price	£[x]	£[x]	£[x]
Wholesale costs as a proportion of price	[x]%	[x]%	[x]%
Critical loss	[x]%	[x]%	[x]%

Consumer elasticity that would constrain a monopolist

- 10.7 Price elasticities measure the consumer response to a price increase. Where elasticity is greater than 1, a price increase of 10% will lead to a demand reduction of more than 10%; where elasticities are less than 1, a 10% price increase will lead to a demand reduction of less than 10%.
- 10.8 The retail price elasticity that is sufficient to constrain a monopolist wholesaler given a price rise depends on the ‘critical loss’ of subscribers and the wholesale price as a proportion of the retail price. The retail elasticity (ϵ_r) that will lead to a given critical loss can be given as:

$$\epsilon_r = CL / S_r \tag{3}$$

- 10.9 Given the dilution effect the impact of a wholesale price rise on the retail price is:

$$S_r = S_w * P_w / P_r \tag{4}$$

10.10 Where S_r = retail SSNIP, S_w = wholesale SSNIP = 10%, and $\frac{p_w}{p_r}$ is the wholesale price as a proportion of the retail price. Therefore the retail consumer price elasticity required for a critical loss given a wholesale price rise can be written as:

$$\varepsilon_r = \frac{CL}{S_w} * \frac{p_r}{p_w} \quad (5)$$

10.11 The table below sets out our estimates of the consumer elasticities that would be sufficient to constrain a monopolist wholesaler, give a 10% increase in the wholesale price.

Figure 30 Elasticities required to constrain a monopolist

	Sky Sports Mix	Sky Movies Mix	Sky Sports and Movies
VM basic M	[∞]	[∞]	[∞]
VM basic L	[∞]	[∞]	[∞]
VM basic XL	[∞]	[∞]	[∞]