Competition issues appendices

Annex 6 to Pay TV Statement

This is the non-confidential version. Confidential information has been redacted. Redactions are indicated by **[✂]**.

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Appendix 1

Overview of this annex

Introduction

1.1 In this annex we set out the following discrete appendices that are relevant to our assessment of competition issues in Section 7.

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Appendix 2

Sky's ability to wholesale on DTT (Multiplexes A, C and D)

Introduction

2.1 Sky states that it "…could not have supplied its [premium] channels on a wholesale basis to any DTT retailer because Sky had, and indeed still has, no way of broadcasting its premium channels via DTT. As Ofcom is aware, its DTT Multiplex licensing regime precludes the provision by Sky of any channels on DTT Multiplexes B, C and D other than the three free to air channels which it currently provides." [1]

2.2 This appendix considers the scope for Sky to wholesale to a DTT retailer. Sky has also requested Ofcom's consent to retail some of its pay TV channels on DTT. We consider that request in our Picnic Statement, published today.

2.3 In practice Sky could have supplied its premium channels on a wholesale basis to a DTT retailer. There are a number of different scenarios under which it could have done so. The situation differs by reference to the different DTT multiplexes on which Sky channels could have been broadcast, and these are explained below. All of this information was available to Sky[2].

2.4 In order for a wholesale arrangement to come into effect two basic requirements would have needed to have been satisfied: (a) it would have been necessary to find transmission capacity on one of the multiplexes over which the channel would be broadcast; and (b) the channel would need to have been subject to a Digital Television Programme Service ("DTPS") licence. It should be noted that there is no general requirement for the person retailing a DTT channel to consumers to be either the holder of the applicable DTPS licence or the holder of the multiplex capacity on which the channel is broadcast.

2.5 We consider here the scope for Sky to wholesale its premium channels on Multiplex A, Multiplex 2, and Multiplexes C and D. We do not consider supply on Multiplex 1 or Multiplex B, which are under the control of BBC.

Multiplex A

2.6 Multiplex A is operated by SDN Ltd (controlled by ITV plc). Prior to the Television Multiplex Services (Reservation of Digital Capacity) Order 2008 (the "2008 Order"), 50% of the capacity on this multiplex was reserved for Five (and in Wales, S4C). There were no restrictions on Sky supplying its premium channels on a wholesale basis on Multiplex A to a third party retailer. Thus, there were two options open to Sky:

- A third party pay TV retailer (or Sky) could have bought unreserved capacity directly from SDN, or used capacity it already held. The premium channel could then have been broadcast under a DTPS licence held by Sky. That channel could then have been retailed as part of a package by the third party retailer; or

[1] Sky response to Third Pay TV Consultation, paragraph 6.90.
[2] [✂].

- With respect to the reserved capacity, the third party (or Sky) could have sublet reserved capacity that was being used for another service or otherwise became available. Sky's premium channels could then have been added to the list of programme services covered by Five's DTPS licence.

2.7 At paragraph 6.93 of its response to the Third Consultation Document, Sky says "It was, and indeed it still is, unclear whether Sky would be entitled to be the provider (with editorial control) of its premium channels via Five's capacity." Prior to the 2008 Order, services provided on reserved capacity (so, for Multiplex A, the capacity reserved for Five and S4C) were required to be provided by the person for whom that capacity had been reserved.[3] However, there were many services that fell under the umbrella of Five's DTPS licence on Multiplex A (including that of Top Up TV). Sky could, therefore, have provided services on Five's capacity in the same way other providers had done so.

2.8 A provision of the 2008 Order required a variation of both the Multiplex A and Multiplex 2 licences as regards Five and S4C's services. This provision was effected on 30 September 2009. Digital capacity sufficient for the broadcasting of Five (and in Wales, S4C) was reserved on Multiplex 2. The digital capacity reserved for the use of Five and S4C on Multiplex A was reduced by the same amount.[4] Thus, since 30 September 2009, broadcasters have been able to buy or sublet capacity on Multiplex A directly from SDN and retail premium channels broadcast on that multiplex subject to a Sky DTPS licence.

Multiplex 2

2.9 Multiplex 2 is licensed to Digital 3 and 4. Prior to 30 September 2009, Sky could have acquired (available) capacity on Multiplex 2 from Digital 3 and 4 in order to wholesale its premium channels. The only relevant restriction on Sky's ability to acquire capacity on this multiplex was that it would have needed Ofcom's prior consent in order to use any of the capacity on Multiplex 2 reserved for the Channel 3 companies (which amounted to 48.5% of the multiplex's capacity). However, Channel 4's 48.5% capacity on that multiplex carried no prior consent requirement before use by Sky. Thus, a third party retailer or Sky could have sought Ofcom's consent to use capacity reserved for the Channel 3 companies, or bought or sublet available capacity from Channel 4 for the broadcast of premium channels on DTT via this multiplex subject to a DTPS licence held by Sky.[5]

Multiplexes C and D

2.10 The situations in respect of each of Multiplexes C and D are different. Arqiva is licensed by Ofcom to operate Multiplexes C and D. Between 2002 and 2006, there were restrictions on the broadcasting of pay TV channels on these multiplexes

[3] Precisely, "the holder of the C5/S4C multiplex licence will use the digital capacity specified in the direction of the Secretary of State […] for the broadcasting of services provided by the holder of the Five licence and by the Welsh Authority." Statutory Instrument 1996 No. 2760, The Independent Analogue Broadcasters (Reservation of Digital Capacity) Order 1996.

[4] The capacity reserved for Five and S4C on Multiplex A was greater than needed for broadcasting these two channels, so additional services had been provided over this capacity.

[5] From 30 September 2009, 48.5% of digital capacity on Multiplex 2 is reserved for Channel 3 licence-holders (less sufficient capacity for broadcasting Five throughout the British Isles), 48.5% is reserved for Channel 4 (less sufficient capacity for broadcasting S4C throughout Wales) and 3% is reserved for the public teletext provider (until that service ceases to be provided).

without Ofcom's consent. In 2006, these restrictions were lifted, though it remains a condition of Arqiva's Multiplex C licence that Arqiva shall not, without Ofcom's prior consent, enter into any agreements which would result in more than three digital television programme services being provided by Sky on Multiplex C. The current description in Sky's DTPS licence reflects the services broadcast on Multiplex C, i.e., Sky News, Sky Sports News and Sky Three. Therefore, it would not have been possible to broadcast another Sky service on Multiplex C without Sky seeking a variation to its DTPS licence and a lifting of the restriction in Arqiva's licence, but this could have occurred with Ofcom's consent.

2.11 A condition in Arqiva's Multiplex D licence prevents Sky from providing services without Ofcom's consent. However, again, Sky could have sought Ofcom's consent to broadcast services on the multiplex if it, or a third party, had obtained capacity.

Appendix 3

Picnic profitability

Introduction

Summary

3.1 Our analysis in the Third Pay TV Consultation indicated that Sky's proposed Picnic service would not be profitable if it paid the wholesale rate-card price for its premium channels. We argued that this contradicted Sky's claim that an efficient DTT retailer would be able to supply premium channels while paying the rate-card price. Sky contested this view, and argued that Picnic would be profitable at the rate-card price.

3.2 As noted in paragraph 7.123 of Section 7, we have updated our model of Picnic's expected profitability in response to comments from Sky. We have found that Picnic would not be profitable at the wholesale price that Sky charges for its premium channels. It would make a loss of **[✂]** on a discounted cash flow basis[6]. In order to break even, Picnic would have to pay **[✂]**, which is **[✂]** less than the cable rate-card price (£17.59) for its premium channels. Given that Picnic's business plan was designed to be stretching[7], and that it is not clear whether Picnic would have made a suitable contribution to the costs of Sky's broadband network, a lower break-even wholesale price may be more realistic.

3.3 The above estimates include all cash flows from Picnic's telephony and broadband business. Excluding cashflows from standalone telephony and broadband customers, and also excluding a portion of common costs attributable to these customers, would mean that Picnic could only afford a wholesale price of **[✂]**. Furthermore, excluding cashflows from the telephony and broadband elements of dual-play and triple-play TV bundles, but allowing for these activities to contribute to some of Picnic's common costs, gives a break-even wholesale price of **[✂]** under a conservative approach or **[✂]** under a less conservative approach.

3.4 These findings support our view that the current rate-card prices are higher than those needed for a rival retailer to be able to compete[8]. We consider that this is also true of the discounted cable rate-card price Sky charges to capacity-constrained cable platforms.

What we said in the Third Pay TV Consultation

3.5 In the Third Pay TV Consultation, we said that:

> "Our analysis of Sky's business model for Picnic indicates that the proposed service would not be profitable if Sky charged Picnic the wholesale rate-card price for its premium channels … this goes against Sky's claim that an

[6] We have modelled cash flows over 10 years and added a terminal value to capture ongoing value in the business.
[7] See paragraph 11.102 of Sky's response dated 29 September 2009 to the Third Pay TV Consultation.
[8] As we noted in our Third Pay TV Consultation, paragraph 8.74.

efficient retailer could supply on DTT at the rate-card price, as Sky itself appears unable to do so".[9]

3.6 We estimated that Picnic would make a loss if it paid the wholesale rate-card price for premium channels. In reaching this conclusion we made the following changes to Sky's original model[10]:

i) Adding transmission costs, which Sky considered not to be a retail cost.

ii) Amortising SAC according to a schedule which more accurately reflected Picnic's expected churn rate.

iii) Excluding cash flows from customers who do not take a TV product.

iv) Discounting future cash flows using an estimate of Sky's weighted average cost of capital.

v) Other small adjustments.

3.7 In the Third Pay TV Consultation, we argued that Picnic would not have been profitable if Sky had charged Picnic the wholesale rate-card price for its premium channels[11]. That is, if Sky were a standalone wholesale channel provider and Picnic a separate retail business, it would have had to offer Picnic a lower wholesale price.

3.8 We noted that, in the absence of regulated charges, wholesale prices would be likely to default to the cable rate-card, but that Picnic's negative profitability at the cable rate-card supported the view that such a price would not ensure fair and effective competition[12].

Sky's response[13]

3.9 In the Sky response to Third Pay TV Consultation, it argued that our approach to estimating Picnic's profitability, using a five-year Net Present Value with no terminal value, was inconsistent with our retail-minus and cost-plus evaluations[14], where we used a 10-year NPV including terminal value to estimate profitability. Sky then proposed changing a number of assumptions in the model of Picnic's profitability[15]:

- Changing the wholesale price of premium channels paid by Picnic from £17.59 to £16.34, which Sky described as "the discounted rate … currently offered to operators with a reduced movie service due to limited capacity".

- Removing inflation that we had applied to the wholesale price of Sky's basic channels – Sky reported that the fees were based on Sky's carriage agreement with Virgin Media which is for three years and "does not include any annual RPI adjustments".

[9] Third Pay TV Consultation, paragraph 6.69.
[10] Third Pay TV Consultation, paragraph 6.69, fourth bullet-point.
[11] Third Pay TV Consultation, paragraph 6.68, fourth bullet-point.
[12] Third Pay TV Consultation, paragraph 8.74.
[13] Please refer to paragraphs 6.80 to 6.89 of Sky response to Third Pay TV Consultation for a more detailed view of Sky's position and arguments.
[14] Sky response to Third Pay TV Consultation, paragraph 6.82.
[15] See Sky response to the Third Pay TV Consultation, paragraph 6.84 for further details on all the following bullet-points.

- Removing two-thirds of transmission costs to gain consistency with our calculations of wholesale prices and the supply arrangements offered by Sky to Ofcom in early 2008;

- In relation to standalone telephony and broadband customers, either:

  - o Methodology A – excluding additional relevant common costs that Sky allocated to telephony and broadband. This means Picnic's adjusted profit excludes more costs from standalone broadband and telephony customers than we modelled in the Third Pay TV Consultation; or

  - o Methodology B – adding back the broadband and telephony standalone revenue and costs that we excluded. This means Picnic's profitability reflects all cash flows from standalone broadband and telephony customers. Sky favoured this approach over Methodology A.

3.10 Sky argued that Picnic would be profitable under most assumptions following the two alternative methodologies (A or B in Figure 1)[16].

Evidence

3.11 We present the effect of Sky's changes in Figure 1, which shows the impact on our original five-year NPV, a five-year NPV with terminal value and a 10-year NPV with terminal value.[17]

Figure 1 Sky's changes to Ofcom's model of Picnic's profitability

[✂]

Note: Figures show profitability of Picnic over the period specified.

Source: Table 6.3 and 6.4 of Sky's September 2009 response to Ofcom's Third Pay TV Consultation

3.12 Following the Third Pay TV Consultation, we have further refined the model of Picnic's profitability, in part reflecting changes proposed by Sky in its response to the Third Pay TV Consultation. In our revised model, we have modelled a 10-year NPV with a terminal value, in line with Sky's suggestion. In view of Sky's comments, we have made adjustments to the inflation we apply to the wholesale price of Sky's basic channels. We have not accepted Sky's argument that we should reflect lower transmission costs; to the contrary, we have adjusted Picnic's transmission costs to reflect the market rate for DTT capacity. We have also not accepted Sky's argument that we should add back in broadband and telephony revenues and costs for standalone customers. However, we have made sure we exclude the full set of relevant common costs that should be allocated to standalone broadband and telephony (as proposed by Sky's methodology A). We also still consider the cable rate-card price (£17.59) to be the most relevant comparator when assessing the wholesale price Picnic could afford to pay.

[16] Sky's response dated to Third Pay TV Consultation, paragraphs 6.85 to 6.86.
[17] Sky also pointed out a small error in our model (footnote 83 of its main response). This increases Picnic's profitability by £0.7m in Sky's methodology A model but does not change profitability under Sky's methodology B. We have corrected this error.

3.13 Below we set out in more detail our refinements to the Picnic model and our reasons for making changes.

Modelling a 10-year NPV with a terminal value

3.14 In order to be consistent with our pricing model, we have modelled Picnic's 10-year NPV with a terminal value. We agree with Sky that this is the most appropriate period over which to assess Picnic's profitability. This change has the effect of increasing Picnic's profitability. In order to bring our treatments of depreciation and subscriber acquisition costs into line with this methodology, we have also revised our treatments of these expenses as follows.

No longer amortising SAC

3.15 Sky's model of Picnic's profitability amortised Picnic's subscriber acquisition costs (SAC) **[✂]** This has the effect of discounting SAC as if Picnic incurred these costs further into the future than it actually does. We have now modelled SAC by expensing it at the time at which it is incurred, which is more appropriate within a Discounted Cash Flow (DCF) framework and is consistent with our wholesale pricing model.

Taking out depreciation costs and replacing them with capex costs

3.16 Sky's model of Picnic's profitability depreciates Picnic's asset base. As with SAC, this has the effect of discounting some of Picnic's capex as if Picnic pays for it further into the future than it actually does. We have now modelled capex by expensing it at the time Picnic incurs it, which is more appropriate within a DCF framework.

Inflation adjustments to the wholesale price of Sky's basic channels

3.17 Sky has informed us that the wholesale prices[18] of Sky's basic channels were based on Sky's carriage agreement with Virgin Media and that this was a three-year agreement without any annual RPI adjustments.[19] We have therefore not applied inflation to Sky's basic channels for the first three years that Picnic retails them. After three years, we have applied inflation on an annual basis, reflecting the likelihood of an inflation-based increase to wholesale prices after this period. Even though there is no RPI adjustment within the current contract, we would expect an adjustment to be made at the time of re-contracting, and that adjustment would take account of forward-looking inflation expectations.

DTT Transmission Costs

3.18 In Sky's model, Picnic's DTT transmission costs reflect the price that Sky paid for capacity several years ago and not its current value. Following the Third Pay TV Consultation, Top Up TV suggested that Sky's "true" capacity costs were likely to be closer to £8m, and therefore higher than Sky's actual costs which it believed would be used in the Picnic business plan[20]. We agree with Top Up TV that it would be inappropriate to use the lower cost figures, as they do not reflect the current market rate faced by other DTT retailers. Therefore, a proper analysis of Picnic's cash flows

[18] Sky also argued this wholesale price was "probably too high". We do not consider this an argument against making inflation adjustments within the model.
[19] Sky's response dated September 2009 to the Third Pay TV Consultation, paragraph 6.84, second bullet-point.
[20] Top Up TV presentation to Ofcom on 15 September 2009, slide 10.

should reflect the full opportunity cost of transmission capacity. We also reviewed Sky's treatment of its transmission costs in **[✂]**[21]. Sky has noted that **[✂]**[22]. However, we have seen no evidence that Sky would be willing to extend these lower costs to BT Vision or Top Up TV through commercial negotiation. Therefore, a proper analysis of Picnic's cash flows should reflect the full opportunity cost of transmission capacity, as determined by the current market rate, as these are the costs that would be faced by an independent broadcaster who wished to supply Sky's channels on DTT and did not already have spare capacity.

3.19 Sky argued that we should include only one-third of the DTT transmission costs because, in our pricing work, we divided transmission costs equally between three retailers[23]. For the purpose of this Picnic profitability analysis, we continue to model full DTT transmission costs. This is because, as we understand it, the Picnic model was not based on competition with other DTT retailers. Adjusting the Picnic model to reflect other DTT retailers offering a similar proposition would also involve making further changes such as a downward adjustment to Picnic's subscriber forecasts – an adjustment which would make Picnic less profitable. Such an adjustment would also require a number of necessarily subjective assumptions, and would add complexity to the model. On balance, we considered that it would not improve the reliability of our calculations, so we have included complete transmission costs and maintained Picnic's stated subscriber forecast.

3.20 We estimate that the opportunity cost of Picnic's three DTT videostreams is **[✂]** per annum[24], which contrasts with Sky's total historic capacity costs of **[✂]** in 2008/09, forecasted to rise to around **[✂]** per annum within five years. We have therefore now used the figure of **[✂]** per annum per videostream to model Picnic's profitability.

Adjustments for customers taking non-TV products

3.21 We have considered whether we should include in our calculations of Picnic's profitability the revenues and costs from Picnic customers taking broadband and telephony products. In doing so, we have first assessed 'standalone' customers, who take broadband and/or telephony, but no television product. In step 1a, below we assess direct revenues and costs for these customers, and in step 1b, we examine associated common costs. In step 2, we look at customers who take broadband and/or telephony alongside a television product. This approach is summarised in the figure below.

[21] Letter from Stephen Nuttall of Sky to Dan Marks of BT, 15 October 2007. **[✂]**.
[22] Sky's response to Third Pay TV Consultation, Section 6, footnote 82.
[23] Sky's response to Third Pay TV Consultation, paragraph 6.84, third bullet-point.
[24] See paragraph 1.149 of Annex 7, where we explain the basis of this estimate.

Figure 2 Assessment of customers taking non-TV products

	Services taken by customers			Revenues & costs addressed in this step	
	TV	Telephony	Broadband	Direct	Common
Step 1a: Excluding revenues and direct costs of standalone broadband & telephony customers		✓ and/or	✓	✓	
Step 1b: Excluding the allocated common costs for standalone broadband & telephony		✓ and/or	✓		✓
Step 2: Excluding cash flows and allocated common costs of TV-bundled broadband & telephony	✓	✓ and/or	✓	✓	✓

Step 1a: Excluding revenues and direct costs of standalone broadband and telephony customers

3.22 In the Third Pay TV Consultation, we excluded from Picnic's cash flows direct costs and revenues for standalone telephony and broadband customers. Sky considered this approach incorrect, as the costs of Picnic were "premised on it being able to offer a standalone Broadband and Talk product" and Picnic would have a "different (lower) cost structure" if every subscriber had to take a TV product[25]. Our view still holds that we should exclude cash flows for standalone broadband and telephony customers. We consider that a new entrant should not have to offer broadband and telephony in order to be profitable at Sky's wholesale price for its premium channels. We have taken Sky's argument on cost structure into account by excluding certain common costs, thereby reflecting the lower cost structure which a more limited business would expect to have (see paragraph 3.24 below).

3.23 Sky's Picnic model also attributes some bad debt and capex costs to standalone broadband and telephony. We have therefore excluded these attributed costs along with the other costs and revenues of standalone broadband and telephony. We have attributed bad debt by revenue, which is consistent with the approach taken in Picnic's business model. We have also attributed capex costs by revenue-generating units, which is also consistent with Picnic's business model[26].

Step 1b: Excluding the allocated common costs for standalone broadband and telephony, based on subscriber numbers

3.24 We have excluded allocated common costs for standalone broadband and telephony, to allow for this part of Picnic's business to contribute to Picnic's overall common costs[27]. Doing so also allows for the possibility that Picnic might have a lower cost structure if every subscriber took a TV product.

[25] Sky's response to the Third Pay TV Consultation, paragraph 6.84, fourth bullet-point. For example, Sky stated that, if Picnic offered services only to TV subscribers, it may not have decided to launch a new brand and instead used the Sky brand.
[26] For example, one subscriber on a triple-play package counts as three revenue-generating units.
[27] Sky's model had not excluded any common costs in 2007/08. We have excluded a further [✂] of common costs allocated using subscriber numbers in 2008/09. This is the first year Picnic had subscribers.

Step 2: Excluding cash flows (direct costs and revenues and allocated revenues) and allocated common costs of TV-bundled broadband and telephony

3.25 We could go further than only excluding the cash flows from standalone telephony and broadband, by also excluding an allocation of cash flows from the broadband and telephony elements of triple-play and dual-play TV bundles. We recognise that there is a degree of judgement in identifying these cash flows due to how we allocate common revenues to the different parts of a triple-play and dual-play TV bundles. We therefore take two different approaches. In the first approach (Change 4 v1 in Figure 4 below), we exclude the incremental revenue of the broadband and telephony elements. This is the extra revenue that Picnic would receive from selling these services on top of its TV service. In the second approach (Change 4 v2 in Figure 4), we exclude the equivalent standalone revenues of broadband and telephony. This is the revenue that Picnic would have received for telephony and broadband if it sold these services on a standalone basis. Neither of these approaches is likely to give a 'correct' answer to the revenue allocation question – instead, they represent the two extremes, with the most appropriate allocation lying somewhere between them.

3.26 In both approaches, we have also excluded direct costs and direct revenues of the broadband and telephony elements of triple-play and dual-play TV bundles. Direct costs include operating costs of broadband and telephony. We have considered online revenue to be a direct revenue of the broadband business.

3.27 As with standalone telephony and broadband, we have also excluded an allocation of common costs that we attribute to the broadband and telephony elements of TV-bundled broadband and telephony. Allocated costs that we have excluded according to these two approaches include retention marketing costs, "welcome pack" costs, bad debt, "above the line" marketing, IT support, research and development, on-line development, call centre costs and "other" costs.

3.28 We have allocated these common costs first by allocating common costs to bundles based on subscriber numbers. Our method to allocate these common costs to the telephony and broadband elements of bundles depends on which approach we used to allocate common revenues; we allocate these common costs in proportion to allocated common revenues of telephony and broadband relative to those of TV. Therefore, under the first approach (Change 4 v1), we use the incremental revenue of telephony and broadband, whereas under the second approach (Change 4 v2), we use the equivalent standalone revenue of telephony and broadband.

3.29 We have also excluded allocated capex costs: as with standalone broadband and telephony, we used the approach taken in Picnic's business model (see step 1a above).

Changing the wholesale price of Picnic's premium channels

3.30 Sky argued that the appropriate wholesale price for Picnic's premium channels is **[✂]** . This figure, which is lower than the contemporary price of £17.59 charged to Virgin Media, is a discounted price for a single sports and single movies package with a reduced movies service. Sky offers this discounted price to a number of narrowband cable operators that also offer a limited movies service similar to Picnic's proposal[28].

[28] Sky response to the Third Pay TV Consultation, paragraph 6.84, first bullet-point.

3.31 **[✂]** [29]. **[✂]** [30]. We have seen no evidence that Sky would be willing to offer, through commercial negotiation, a discounted wholesale price of the sort Sky proposes should be applied to Picnic in our analysis. We therefore focus on the higher wholesale price of £17.59 in interpreting our results.

Other factors that we consider

Picnic's Broadband Network Costs

3.32 In response to Sky's argument that we should include in our analysis cash flows from non-TV services, we have further reviewed Picnic's costs of providing broadband services. It is important to check that Picnic's broadband costs cover the full range of relevant activities we would expect a comparable entrant to undertake, particularly in light of the pre-existence of Sky's broadband infrastructure providing services to Sky's DSat customers. We identified in the Picnic business plan subscriber acquisition costs, capital expenditure and ongoing variable costs which are attributable to broadband. These costs are summarised in the table below.

Figure 3 Sky's costs of providing broadband services

[✂]

*Costs are for relevant periods to June 2010. Variable costs are for on-net subscribers, which Sky forecast to account for **[✂]** of Picnic's broadband customers. **[✂]***

3.33 It appears that Picnic's budgeted variable costs cover the short run incremental costs of providing broadband services. Sky provided some limited further information regarding these cost items[31]. Picnic's budgeted broadband costs would cover BT's LLU charges, transit and peering charges, and "costs associated primarily with LLU equipment and backhaul". However, it is not clear whether Picnic would make a suitable contribution to the substantial costs of establishing Sky's broadband network. These costs are largely sunk, representing investments made by Sky in the recent past, but are costs which we would expect a comparable entrant to face. We have therefore not been able to determine definitively whether Picnic's costs cover the full long run incremental costs of providing the service.

Results

3.34 Figure 4 below presents the highest projection of the wholesale price Picnic could afford to pay for premium channels following the different changes we have made. The first column shows the highest affordable wholesale price under Sky's model (methodology B in Figure 1) provided in its response to the Third Pay TV Consultation. This is **[✂]**, which is well above the wholesale rate-card price of **[✂]**.

3.35 Under Change 1 to Sky's model, capex and SAC are expensed in the year that they were incurred, and under Change 2 Picnic pays the market rate for all its transmission requirements (i.e. it doesn't share transmission costs). Following these two changes, Picnic could only afford to pay up to **[✂]**, so it would make a loss if it had to pay the undiscounted rate-card price. Given that Picnic's business plan was

[29] Letter from Stephen Nuttall of Sky to Dan Marks of BT, 15 October 2007.
[30] Email from Mark Winterbottom to Marc Watson, Richard Young and Chris Alner, 15 July 2009. The quote is from note 4 of the attachment.
[31] Email from **[✂]** Sky to **[✂]** Ofcom, 19 March 2010.

intended to be stretching[32], and that it may not have fully covered the costs of Sky's broadband network, it may have made even greater losses. This would suggest it could only afford to pay a wholesale price lower than **[✂]**.

3.36 Excluding cash flows and allocated common costs of stand-alone telephony and broadband (Change 3), would correspond to an even lower break-even wholesale price of **[✂]**.

3.37 As discussed above, we have used two different approaches to exclude cash flows and allocated common costs of telephony and broadband in triple and dual-play TV packages. Change 4 v1 is the more conservative approach, whereas Change 4 v2 is less conservative. Both result in break-even wholesale prices even further below **[✂]**.

Figure 4 [✂]

[✂]

[✂]

Source: Sky's model of Picnic's profitability; Ofcom analysis

3.38 Including cash flows and common costs from Picnic's telephony and broadband activities, Picnic's business as a whole (i.e. up to Change 2) would have made a **[✂]** using a 10-year NPV with a terminal value.

3.39 Excluding cash flows and allocated common costs of standalone broadband and telephony (Change 3), Picnic would make a **[✂]**. Also doing this for broadband and telephony in TV bundles would result in a loss of **[✂]** under Change 4 v1or **[✂]** under Change 4 v2.

3.40 Sky stated in its response that:

> "Even if Ofcom had shown that Picnic could not 'afford to pay' Sky's cable rate-card prices, the answer is not that Sky's wholesale prices must be reduced. If Picnic's retail mark-up is not sufficient to cover its costs, then Picnic should simply increase its retail prices.
>
> Sky notes that it would not be correct for Ofcom to infer that any price increase would reduce Picnic's profitability … The retail prices contained in the Picnic business plan reflect what Sky considered, at the time, to be profit maximising for Picnic, taking into account the impact of Picnic pricing on the profits earned on the sale of premium channels for Sky as a whole.
>
> Small increases in the retail price for Picnic could therefore be expected to increase the profitability of Picnic as a stand alone retailer. This is well established in the economics literature on double marginalisation".[33]

3.41 If Picnic's retail prices were set so as to maximise profits for Sky as a whole, we presume they would take account of potential cannibalisation of Sky's DSat subscriber base. If Picnic's prices were set lower than the intended price of **[✂]**,

[32] See paragraph 11.102 of Sky's response dated 29 September 2009 to the Third Pay TV Consultation.

[33] Sky's response dated September 2009 to Third Pay TV Consultation, paragraphs 6.87 and 6.88 and footnote 86.

this could attract Sky customers currently paying for higher-priced packages on DSat. A stand-alone retailer such as that envisaged by Sky would have no concern for such cannibalisation, so its profit-maximising retail price could be somewhat *lower* than Picnic's intended price. At the same time, as Sky suggests, a stand-alone retailer would, unlike Picnic, not take account of Sky's wholesale revenues, so its profit-maximising price could be somewhat higher (and its subscriber numbers somewhat lower). It is not clear which of these two effects would be stronger in a stand-alone retailer's pricing decision, so we see no basis for concluding that its profit-maximising price would be different from Picnic's envisaged price of **[✂]**. We cannot conclude that a retail price increase would be profitable in these circumstances.

Appendix 4

Response to CRA paper on "Dynamic Foreclosure Mechanisms"

Introduction

4.1 Our Second Pay TV Consultation discussed a number of mechanisms which were put forward as explanations of Sky's apparent unwillingness to supply its Core Premium channels to other retailers, notably that:

- A bidder for premium content rights which is vertically integrated with the leading retailer on the platform with the greatest number of likely subscribers to a Core Premium channel is able to access those subscribers more efficiently, and to monetise premium content rights more quickly; it is thus in a stronger position than vertically integrated bidders on other platforms or independent bidders[34]. As such, Sky would have an incentive to ensure that it retained the greatest number of Core Premium subscribers in order to prevent competitors from bidding up rights prices.

- If bidders for rights are more evenly matched (e.g. in terms of their retail presence), then there is a greater possibility that a proportion of key rights will be won by a firm other than Sky. This could lead to an increase in competition between wholesale suppliers of Core Premium channels[35].

- Refusing to supply premium content to rival retail platforms diminishes the total size of those platforms' subscriber bases. As a result, those platforms lose economies of scope between retailing basic-tier and premium packages, i.e. their average costs increase, placing them at a competitive disadvantage to Sky[36].

4.2 In response to the consultation, Sky submitted a paper by CRA[37]. The CRA paper, on behalf of Sky, argued that Ofcom's discussion of dynamic foreclosure mechanisms "are not founded on robust economic analysis" and "cannot be taken as the basis for intervention in the pay TV industry".

Advantages in acquiring rights

4.3 CRA argued that the first two mechanisms discussed are based on the premise that if a broadcaster can increase the size of its retail base, it gains a persistent advantage over its rivals in acquiring content rights.

4.4 CRA argued that a broadcaster would like to extract the willingness to pay of subscribers to all retailers, not just its own subscribers, i.e. to engage in wholesale as well as retail supply. It said that as long as wholesale contracting allows the content-holder to extract the willingness to pay of subscribers to other retailers, then there is no reason to believe that having a larger retail base in itself increases the revenues

[34] See Second Pay TV Consultation, Annex 8, paragraph 2.36.
[35] See Second Pay TV Consultation, Annex 8, paragraph 2.38.
[36] See Second Pay TV Consultation, Annex 8, paragraph 2.41.
[37] "Some comments on Ofcom's Second Consultation Document; Ofcom's "Dynamic Foreclosure Mechanisms", CRA International"; Annex 4 to Sky's response to the Second Consultation.

that a broadcaster earns from premium content. It noted that on this point the Parties do not complain that Sky charges them too little.

4.5 In this context, CRA noted that there is a possibility that negotiations for wholesale supply may break down for a time, and that such negotiating frictions or any other inefficiency in wholesale supply might give rise to some relationship between the size of a broadcaster's retail base and its expected returns from premium content, though total (retail plus wholesale) subscribers would remain the main determinant. CRA argues that for such a relationship to be a strong one, the risk of breakdown or the potential inefficiency of wholesale supply would have to be substantial. It said that Ofcom had provided no evidence to this effect.

4.6 CRA further noted that:

- Access to Sky's satellite platform is regulated.
- A broadcaster with a large retail base will have higher revenues than one with a smaller retail base, even if it does not win rights, so one must have regard to the increase in revenues that would arise from winning the rights. CRA argued that whether such a broadcaster would have a stronger incentive to pay for the rights was unclear.
- Sky would only seek to restrict supply of content if the benefits from doing so (in terms of deterring others from bidding for rights) were greater than the foregone wholesale revenues. CRA said that Ofcom had not attempted to demonstrate that this was the case.

4.7 CRA referred to two papers by Professor Helen Weeds. The first[38] finds that for a dynamic incentive to exist, the marginal benefit from a further increase in market share is greater for a firm that already has a larger market share. The second[39] finds that a vertically integrated broadcaster will always have an incentive to supply its premium content to downstream rivals, given frictionless wholesale contracting with a per-subscriber fee. It finds that with frictionless bargaining, a downstream advantage would not enable a vertically integrated firm systematically to win a rights auction. This result does not hold without frictionless bargaining, where a downstream advantage can translate into a higher valuation for the upstream content. But even in that case, the paper finds that the vertically integrated firm would not have an incentive to restrict supply of its content in order to gain advantage in bidding for another content right. As in the first paper, this is because the dynamic incentive depends on the marginal benefit from an increased market share being greater for a firm that already has a higher market share.

Our view

4.8 CRA acknowledged that negotiating frictions or other inefficiencies in wholesale supply might give rise to some relationship between the size of a broadcaster's retail base and the expected amount it earns from premium content. CRA did not provide any support for its claim that, in spite of this, total (retail plus wholesale) subscribers would remain the main determinant.

[38] H. Weeds (2008a) "TV Wars: Exclusive Content and Platform Competition in Pay TV", mimeo, May 2008.
[39] H. Weeds (2008b) "The 'Vicious Circle?' Exclusivity in Pay TV with Content", Working Document, October 16, 2008.

4.9 We consider that, if negotiating frictions were such as to result in a broadcaster, which was seeking to monetise sports rights, being absent from a major platform for a period of months, this could have a very substantial impact on its viability. While the available evidence on this point is limited, **[✂]** indicates the importance of avoiding such a delay. There is also a substantial risk that a rival wholesaler would fail to agree terms on some platforms, or reach terms that did not allow it to extract the willingness to pay for premium content (for example, if a platform operator had significant buyer power). We consider that for a potential bidder, having a pre-existing subscriber base of Core Premium customers can be expected to considerably reduce that risk.

4.10 In this regard, we further note that, despite Sky's professed desire to sell its Core premium channels over as many platforms as possible, these channels are absent from several significant platforms. Sky has given a number of reasons for this, notably other parties' failure to accept its prices; a negotiating stand-off due to Sky's belief that it is the most effective retailer, and others' reluctance to allow Sky to retail on their platform, regulatory gaming by others, and a failure of others to meet Sky's security concerns. Sky has also argued that its penetration on cable has been relatively poor due to Virgin Media's ineffectiveness as a retailer.

4.11 We have not accepted that these obstacles which Sky claims to have faced adequately explain the restricted supply of Core Premium channels, or the relatively low penetration on Virgin Media's platform. However, if we were to accept Sky's arguments, and unless we believed that all of these problems were unique to Sky, we might well expect that another wholesaler/retailer who acquired upstream premium content would face at least some of the same obstacles.

4.12 As regards CRA's comment that access to Sky's satellite platform is regulated, we recognise that this is likely to increase the ability of other providers to reach potential customers. It is possible, for example, that the option of seeking regulated access will have put ESPN in a stronger position in negotiating a carriage agreement with Sky. However, we consider that a retailer which has a pre-existing relationship with premium subscribers is likely to be able to be able to access those subscribers more efficiently and more quickly than one which does not. This view is supported by:

- The fact that ESPN is retailed by Sky on Sky's satellite platform **[✂]**. While ESPN is not a retailer, it could potentially have made an agreement with a retailer other than Sky, which could have had regulated access to Sky's platform. However, such a retailer would have had to establish its own customer base, whereas Sky already has a customer base of Core Premium subscribers on the DSat platform.

- Arguments from third party retailers (see paragraph 7.94) that having two separate retail arrangements for pay TV is potentially unattractive to customers.

- Setanta's failure despite retailing directly on DSat.

4.13 For these reasons, we do not consider that regulated access to Sky's platform delivers all the advantages of having a pre-existing supply relationship with a base of Core Premium subscribers.

4.14 We recognise, as CRA argued, that bidders for rights will consider the *increase* in revenues from winning rights, and hence that a broadcaster with a large retail base will earn retail revenues from premium content even if it does not win the rights. This means that bids are likely to be driven by the difference in revenues in the two scenarios. However, the key consideration for a potential bidder will be *profits,* rather than *revenues* under each scenario. If the winner of the rights is able to extract the willingness to pay for premium content through the wholesale prices it charges to retailers, this suggests that any profits earned will be won by the winner of the rights rather than retailers.

4.15 As discussed in Annex 4, Appendix 8, we consider that vertically-integrated pay TV subscribers with a large subscriber base enjoy significant advantages. These advantages would not be available to Sky if it lost the rights to its key content to a rival. We consider that Sky's willingness to pay for these rights depends on the value of the advantages which it would lose if it lost the rights, and that these would be greater for a broadcaster with a large subscriber base than one with a small base. Moreover, if a smaller rival retailer won the rights and launched a new channel, there would be a delay before Sky Core Premium channel subscribers signed up to the new channel[40].

4.16 As regards CRA's comment that Ofcom had not demonstrated that the benefits of restricting supply of content were greater than the foregone wholesale revenues, this is similar to Sky's argument which we report in paragraph 7.186 of the main document. As we note in paragraph 7.199, we do not consider that such a balancing exercise is necessary to support our conclusions.

4.17 As regards the two papers by Professor Weeds which CRA cited, we note CRA's conclusion that the papers cited do not provide a basis for a dynamic mechanism which would give Sky an incentive to restrict supply of its Core Premium channels.

4.18 However, neither do they demonstrate that such a mechanism or incentive does not exist. Within the terms of the papers: if bargaining is not frictionless (as seems likely), and if an increase in market share is worth more to Sky than to its competitors, then Sky could well have an incentive to restrict supply.

Economies of scope

4.19 CRA criticises Ofcom's view that there are scope/scale economies between the retailing of basic-tier and premium packages in the form of (a) joint marketing activities and (b) retail bundling between basic and premium services.

- <u>Joint marketing activities:</u> CRA noted that while such synergies may exist, Ofcom has not attempted to quantify them. It also argues that any such synergies are unlikely to be large enough to have a significant impact on competition, and that synergies could also exist between basic-tier packages and the other "triple play" services of broadband and telephone. CRA argued that the greatest beneficiary of such synergies must be BT, not Sky.

- <u>Bundling:</u> CRA again noted that we have not quantified the magnitude of the effect. CRA also argued that for bundling to have a possible exclusionary effect, fixed costs must be substantial. It noted that we have not quantified these costs, and that fixed retailing costs are likely to be small. It said that we cannot assume that one provider's ability to bundle automatically disadvantages and excludes its competitors.

[40] We expect that this delay would be greatest for retailers who did not already have subscribers to Sky Core Premium channels in their customer base (as was the case for Setanta), but a retailer who already supplied Sky Core Premium channels would also face some delay in signing its customers up to the new channel.

Our view

4.20 We recognise that we have not quantified synergies in joint marketing activities or bundling. However, we consider that, where there is a reasonable argument for such effects being present, we should have regard to them even where we have not been able to quantify them.

4.21 As regards retailing synergies, our view is that, while BT may already benefit from some such synergies with regard to telephony and broadband, Sky may still have an incentive to prevent its competitors (whether BT, other existing competitors, or new entrants) from gaining the benefit of (additional) synergies from the sale of Core Premium channels.

4.22 As regards bundling, we note that while fixed retailing costs may be small, wholesale level fixed costs (e.g. content production/acquisition) are likely to be large, so we would expect the ability to bundle to confer a significant advantage. As such, a firm with market power is likely to have some incentive to retain this advantage for itself, rather than conferring it on its retail competitors.

4.23 We accept that the available evidence regarding synergies and bundling would not in itself (i.e. in the absence of other evidence) provide the basis for a conclusion that Sky has an incentive to restrict supply of its Core Premium channels. However, we remain of the view that such effects may be part of the reason for Sky's reluctance to wholesale its Core Premium channels.

The Harbord and Ottaviani paper

4.24 In a submission dated October 2007, CRA stated that:

> "… there can be no general presumption that an integrated supplier has incentives to withhold supply of an upstream input to its downstream rivals. On the contrary, a supplier who can charge non-linear prices for the upstream input will always have incentives to license to all downstream outlets. In addition, a similar result can be obtained even in the absence of non-linear pricing. This is shown, for instance, in Harbord and Ottaviani (2001), who demonstrate that an integrated firm with exclusive rights to premium programming always resells its channels to a (horizontally differentiated) retail competitor as long as some form of per-subscriber pricing may be implemented (which is typical in wholesale contracts in the pay-TV industry, and which would also be the structure of charges adopted by Sky for direct retail deals on another platform)." (footnotes omitted)[41]

4.25 In the Second Pay TV Consultation we considered this paper[42]. With regard to CRA's specific claims, we did not accept that the theoretical result in the Harbord and Ottaviani paper, namely that a wholesale supplier always has an incentive to license its content to downstream retailers, applies in this case[43].

4.26 In response to the Second Pay TV Consultation, CRA stated that "although the Harbord and Ottaviani model predicts that resale **always** occurs, it might not do so in practice between retailers operating on the same transmission platform."[44] CRA

[41] October 2007Sky submission, annex 4, paragraph 51.
[42] Second Pay TV Consultation, annex 8, paragraphs 2.20-2.27.
[43] Second Pay TV Consultation, annex 8, paragraph 2.25.
[44] Sky Reponse to the Second Pay TV Consultation, annex 4, paragraph 29.

characterised Ofcom's position in the Second Pay TV Consultation as "dismissing the implication of the Harbord and Ottaviani model altogether"[45]. CRA considered that the "result that the vertically integrated firm resells the content to its rival should … be taken seriously"[46].

4.27 We do not accept CRA's characterisation of our position in the Second Pay TV Consultation as dismissing the Harbord and Ottaviani paper altogether[47]. Rather it was the original suggestion that this paper shows that a wholesaler **always** has an incentive to supply downstream competitors that we disagreed with. In any event, this paper was originally cited in support of CRA's argument that there is "no general presumption that an integrated supplier has incentives to withhold supply of an upstream input to its downstream rivals". We agree that that there is no such presumption, and have thus analysed Sky's conduct in detail in Section 7 of the main document.

[45] Sky Reponse to the Second Pay TV Consultation, annex 4, paragraph 30.
[46] Sky Reponse to the Second Pay TV Consultation, annex 4, paragraph 31.
[47] See in particular Second Pay TV Consultation, annex 8, paragraph 2.26.

Appendix 5

Omnibus survey research

Introduction and Methodology

5.1 In light of responses to the Third Pay TV Consultation we commissioned consumer research to better understand how consumers chose their pay television platform and the importance of HD television and interactive services in this choice.

5.2 We commissioned TNS[48] to include our questions on their face to face CAPI (computer assisted personal interviewing) omnibus survey. The omnibus survey interviews a representative sample of 2,000 UK adults aged 16+ each wave. Quotas (by gender, working status and presence of children) were set to ensure the sample was representative and any sample profile imbalances were corrected at the analysis stage through weighting.

5.3 Additional weighting was applied to the data to ensure that the data was representative by cabled and non-cabled area of the UK.

5.4 The survey was conducted on two waves of the omnibus survey. The first wave was conducted between 28 October 2009 and 3 November 2009. A sub-set of the questions, where the sample size was relatively small were then repeated on another wave of the survey conducted from 25 November 2009 to 29 November 2009. Reponses to questions that were asked on both waves were then combined to give a more robust sample size. The same weighting as described above was then applied to this combined data set.

5.5 The questionnaire asked respondents whether they had responsibility for household decisions about television services. If they were solely or jointly responsible they were defined as decision makers. The data presented in this report is based on the responses given by decision makers.

Key Findings

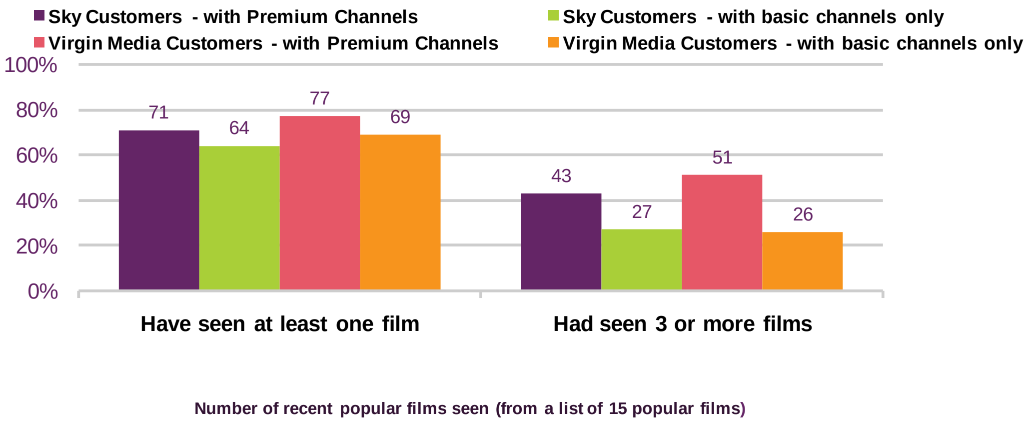
Interest in sports and movies

5.6 To objectively measure the level of interest in movies, we showed TV decision makers a list of 15 currently popular films[49] and asked how many they had seen. Premium channel subscribers were more likely to have seen films on the list. The responses given by Sky and Virgin Media customers were similar. It should be noted that the sample size of Virgin Media customers with basic channels was small (58 respondents) so results should be treated with caution.

[48] TNS are now part of Kantar Media.

[49] The list contained the top five most popular/ viewed cinema films at each of the following: the DVD rental and Pay Movie TV channel.

Figure 5 Interest in movies



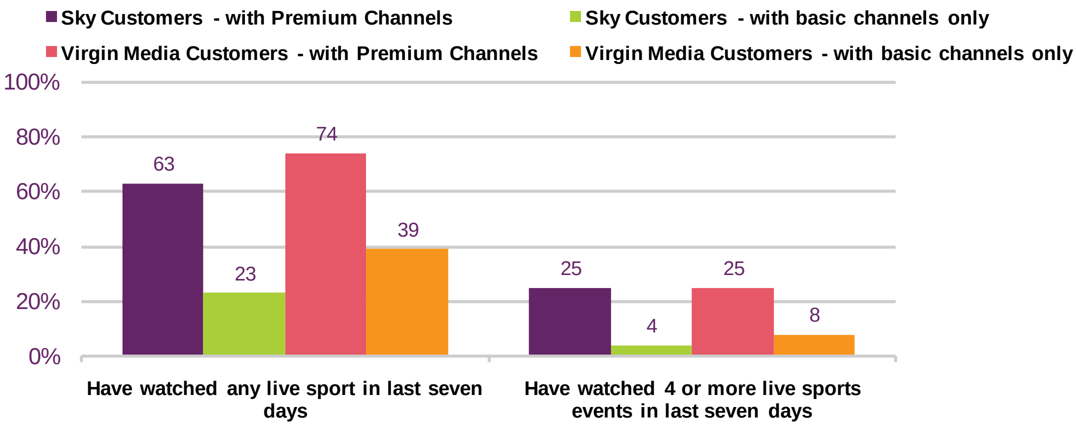
Source: Ofcom research, November 2009

Base: All decision makers (n = 350 Sky Premium customers, 230 Sky Basic customers, 58 Virgin Media Premium customers, 160 Virgin Media Basic customers)

Q. I am now going to show you a number of film posters, and would like you to tell me which, if any, of these films that were released in 2008 or 2009 you have seen? This could have been either at the cinema or on TV. Caution should be applied due to small sample of Virgin Media Premium Customers.

5.7 We also asked decision makers whether they had watched any live sports events in the last seven days. Those with premium channels were more likely than those without to have done so. Again, the responses from Virgin Media customers with basic channels only should be treated with caution due to the small sample size.

Figure 6 Interest in sports



Source: Ofcom research, November 2009

Base: All decision makers (n = 350 Sky Premium customers, 230 Sky Basic customers, 58 Virgin Media Premium customers, 160 Virgin Media Basic customers)

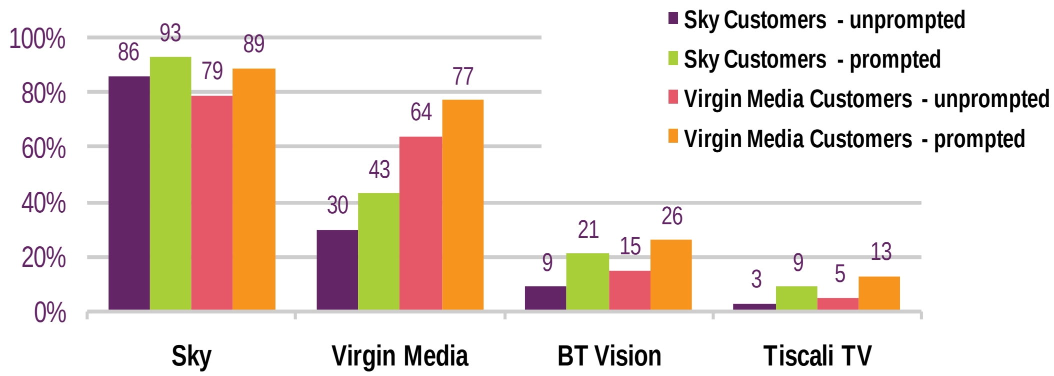
Q. Have you watched any live sports events, such as football, cricket or rugby in the last seven days, either on television or in person at the venue?/ How many events have you watched in the last seven days? If you are not sure, please give me your best estimate.

Caution should be applied due to small sample of Virgin Media Premium customers.

Awareness of premium channel suppliers

5.8 We asked decision makers with a pay TV service which platforms they thought they could get Sky Sports channels 1, 2 or 3 from. The results reveal that awareness of availability of these channels is higher on the Sky platform than Virgin Media amongst both Sky and Virgin Media customers (before and after prompting). Awareness that these channels are available on Virgin Media was lower amongst Sky customers than it was amongst Virgin Media customers. It should be noted that Sky Sports is not available on BT Vision, so the results indicate some consumer misunderstanding.

Figure 7 Awareness of which providers provide Sky Sports



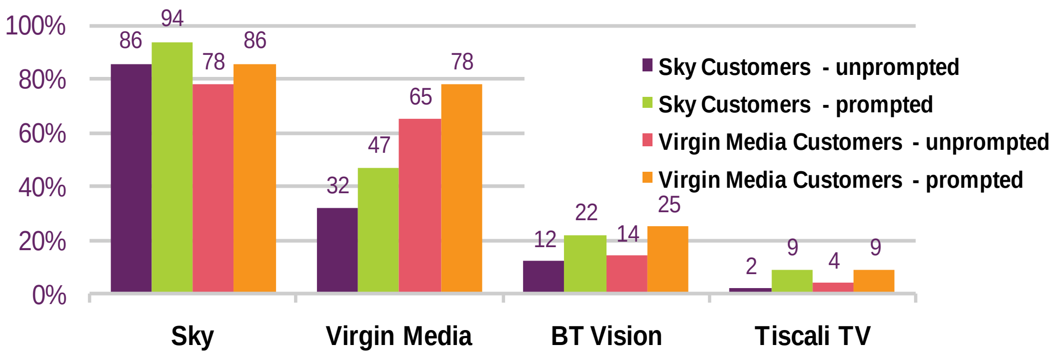
Source: Ofcom research, November 2009

Base: All decision makers with a pay TV service (n = 580 Sky customers, 218 Virgin Media customers)

Q. Which TV suppliers do you think you can get Sky Sports 1, 2 or 3 channels from?

5.9 We also asked the same group of respondents which platforms they thought they could get Sky Movies channels from. The results again reveal that awareness of availability of these channels is higher on the Sky platform than Virgin Media amongst both Sky and Virgin Media customers (before and after prompting). Awareness that these channels are available on Virgin Media is again lower amongst Sky customers than it is amongst Virgin Media customers. It should be noted that Sky Movies is not available on BT Vision, so again the results indicate some consumer misunderstanding.

Figure 8 Awareness of which providers provide Sky Movies



Source: Ofcom research, November 2009

Base: All decision makers with a pay TV service (n = 580 Sky customers, 218 Virgin Media customers)

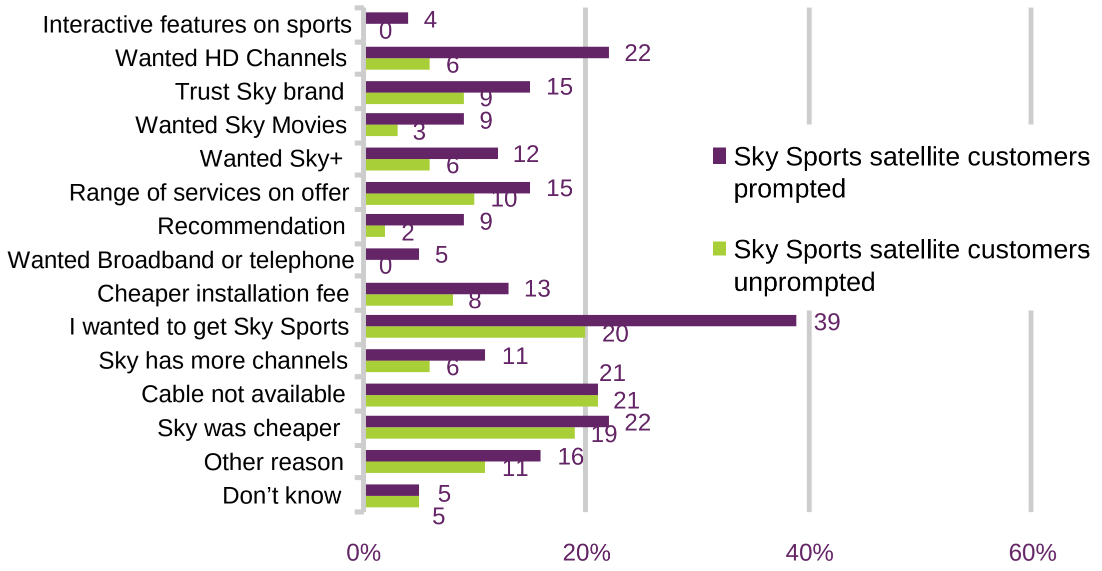
Q. Which TV suppliers do you think you can get Sky Movies channels from?

Note that Sky Movies is not available on BT Vision, so the results indicate some consumer misunderstanding

Reasons for platform choice

5.10 We asked Sky Sports satellite customers (i.e. those who subscribe to Sky Sports on the satellite platform) who considered Virgin Media before they chose their platform why they chose Sky as their TV supplier rather than Virgin Media. Before prompting, one in five of these customers said that it was because they wanted to get Sky Sports. After prompting this figure rose to almost two in five (39%). This is consistent with the data in Figure 7, which suggests that awareness of availability of Sky Sports channels on other platforms is relatively low. Note that caution should be applied to this data as the total number of respondents was small (53).

Figure 9 Reasons for choosing Sky as TV supplier rather than Virgin Media



Source: Ofcom research, November 2009

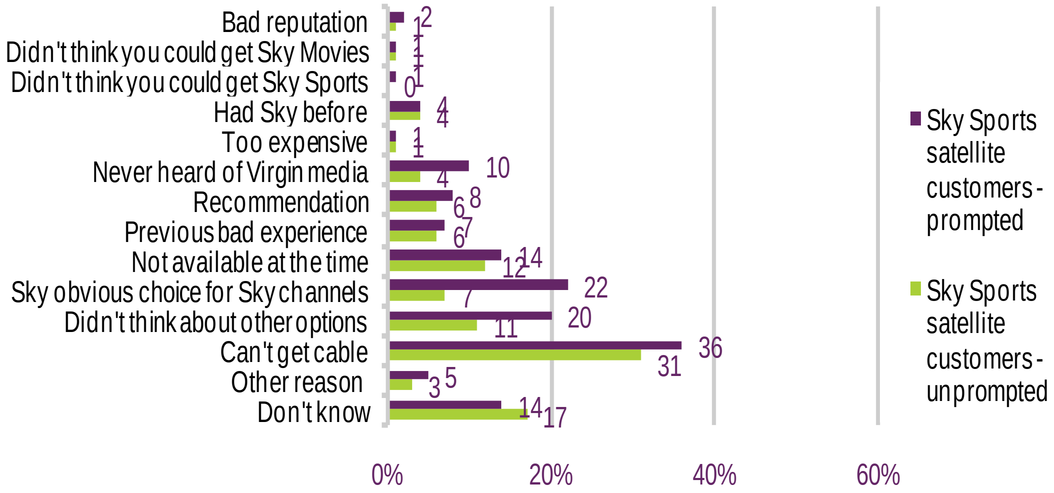
Base: All decision making Sky Sports satellite customers who considered Virgin Media (n = 53)

Q. Why did you choose Sky for your TV service rather than Virgin media? / Why else did you choose Sky for your TV service rather than Virgin Media? (Prompted)

Caution should be applied due to small sample

5.11 We asked Sky Sports satellite customers who did not consider Virgin Media for their TV service why they did not. Unprompted, one in ten (11%) of these customers said that they didn't think about other options (increasing to 20% after prompting). Seven per cent said that Sky seemed the obvious choice for Sky channels without promoting – this rose to 22% after prompting.

Figure 10 Reasons why Sky Sports customers did not consider Virgin Media for TV service



Source: Ofcom research, November 2009

Base: All satellite decision makers with Sky Sports who didn't consider Virgin Media (n = 242)

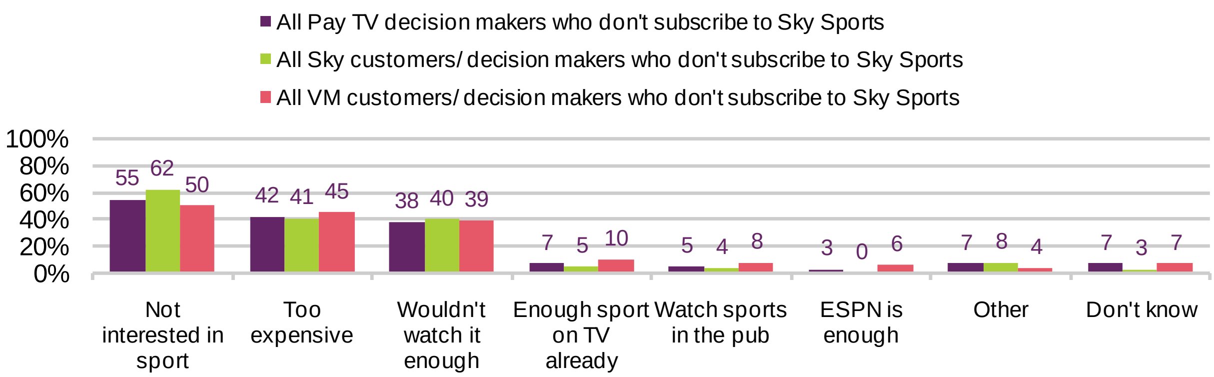
Q. Why didn't you consider Virgin Media or Cable TV for your TV service?/ Why else didn't you consider Virgin Media or cable TV for your TV service ? (Prompted)

Reasons for not subscribing to premium channels

5.12 Amongst pay TV customers who do not subscribe to Sky Sports, over half (55%) said that this was because they were not interested in sport, around four in ten (42%) said that it is too expensive and a similar proportion (38%) said that they wouldn't watch it enough. Amongst those who had viewed one to three sporting events in the past week, almost two-thirds (64%) said that Sky Sports is too expensive.

5.13 A small minority (3%) said that ESPN is enough for their needs, and all of these were Virgin Media customers.

Figure 11 Reasons why pay TV customers do not subscribe to Sky Sports (Prompted)



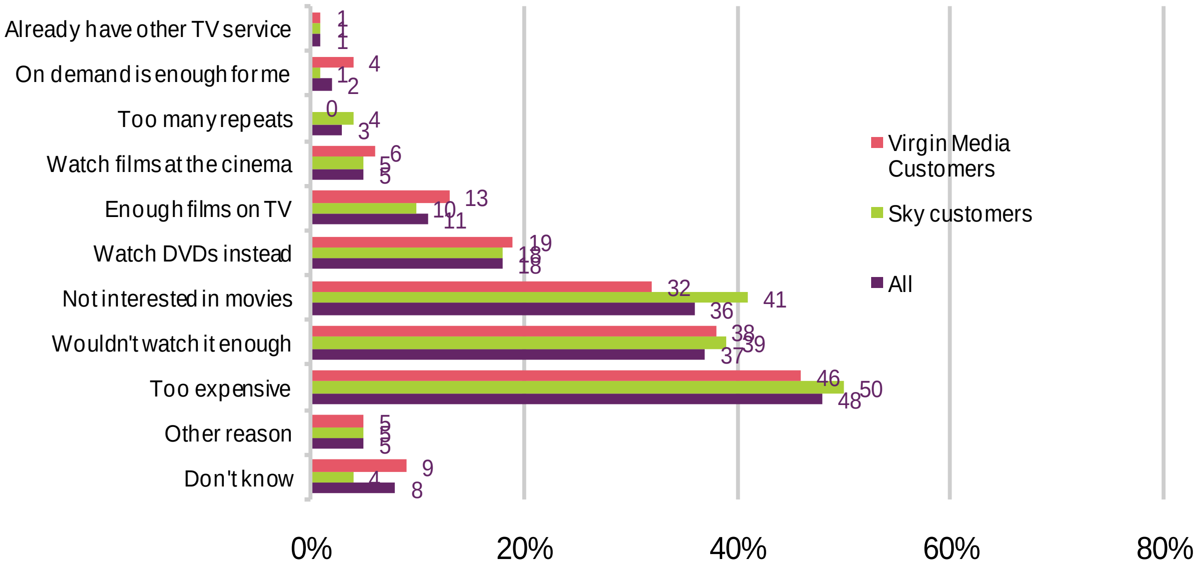
Source: Ofcom research, November 2009

Base: All decision makers with a pay TV service who do not currently subscribe to Sky Sports (n = 508, 309 Sky customers, 165 VM customers)

Q. Why don't you subscribe to Sky Sports ? Any other reasons? Why else don't you subscribe to Sky Sports (Prompted).

5.14 Amongst Pay TV customers who do not subscribe to Sky Movies, over a third (36%) said that this was because they were not interested in movies, around half (48%) said that it is too expensive and just over a third (37%) said that they wouldn't watch it enough.

Figure 12 Reasons why pay TV customers do not subscribe to Sky movies (Prompted)



Source: Ofcom research, November 2009

Base: All decision makers with a pay TV service who do not currently subscribe to Sky Movies (n = 576, 355 Sky customers, 185 VM customers)

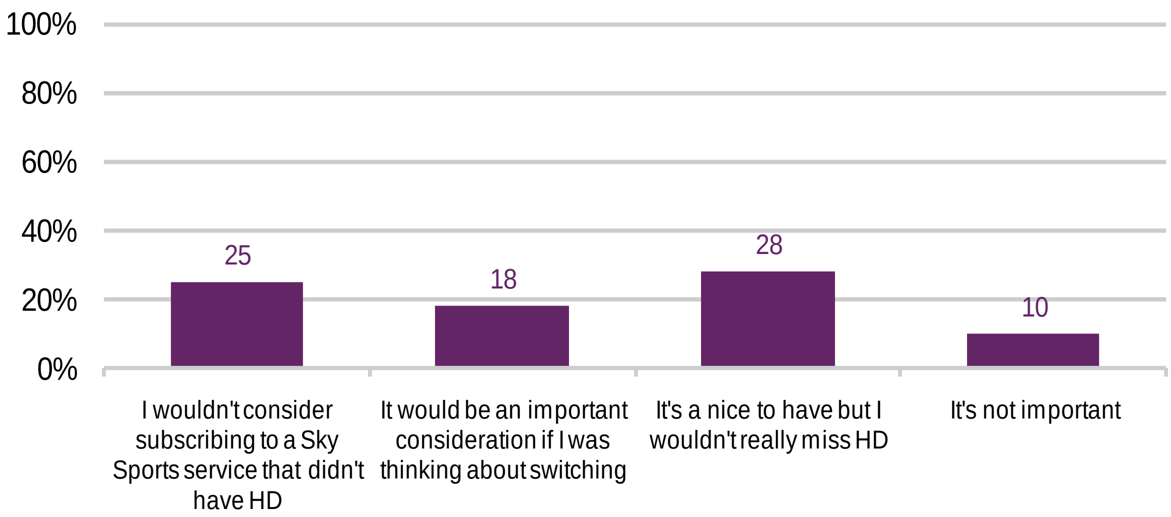
Q. Why don't you subscribe to Sky Movies? Any other reasons? Why else don't you subscribe to Sky Movies (Prompted).

Note that "too expensive" is likely to be a 'catch all' response that includes factors such as poor value, lack of interest, budgetary constraints. It does not imply that the respondent considers the service to be over-priced.

The importance of HD services

5.15 We asked pay TV decision makers who subscribe to and watch Sky Sports HD which of four statements best described how important HD on Sky Sports was to them. A quarter of these respondents agreed with the statement that "I wouldn't consider subscribing to a Sky Sports service that didn't have HD". It should be noted that the sample size for this question was small (67 respondents) so results should be treated with caution.

Figure 13 Importance of High Definition to Sky Sports viewing



Source: Ofcom research, November 2009

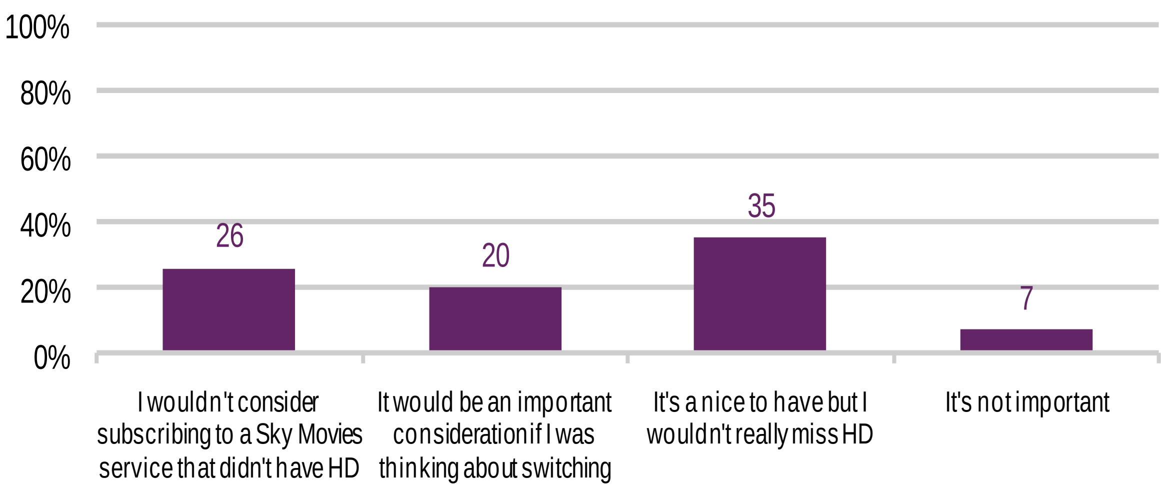
Base: All decision makers with a pay TV service who subscribe to high definition and watch Sky Sports HD (n = 67)

Q. Which of these statements best describes how important high definition TV is to you and your household when you watch Sky Sports 1, 2 or 3?

Caution should be applied due to small sample.

5.16 We asked a similar question, about Sky Movies, to pay TV decision makers who subscribe to and watch Sky Movies HD. The response was similar; a quarter (26%) of these respondents agreed with the statement that “I wouldn’t consider subscribing to a Sky Movies service that didn’t have HD”. It should be noted that the sample size for this question was small (88 respondents) so results should be treated with caution.

Figure 14 Importance of High Definition to Sky Movies viewing



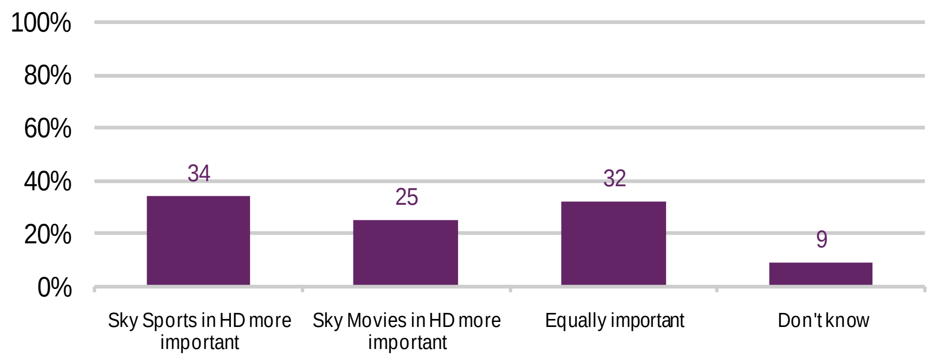
Source: Ofcom research, November 2009

Base: All decision makers with a pay TV service who subscribe to high definition and watch Sky Movies HD (n = 88)

Q. Which of these statements best describes how important high definition TV is to you and your household when you watch Movies channels? Caution should be applied due to small sample.

5.17 We asked pay TV decision makers who subscribe to and watch both Sky Movies HD and Sky Sports HD which is more important to them. The results suggest a range of opinion, with Sky Sports appearing to be more important on average across the sample. It should be noted that the sample size for this question was very small (45 respondents) so results should be treated with particular caution.

Figure 15 Whether HD is more important when watching Sky Sports or Sky Movies



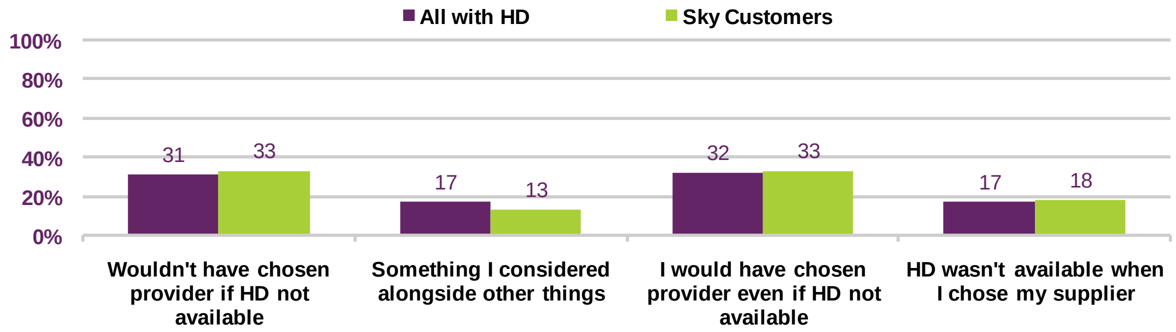
Source: Ofcom research, November 2009

Base: All decision makers who watch Sky Movies and Sky Sports HD (n=45)

Q. Is high definition more important to you when watching Sky Sports, or when watching Sky Movies. Caution should be applied due to small sample

5.18 We asked pay TV decision makers who subscribe to and watch HD channels which of four statements best described how important it was to them when they chose their pay TV supplier. A third (33%) of Sky HD customers said that they would not have chosen another supplier if HD was not available. It should be noted that the sample size for Virgin Media customers for this question was very small (37 respondents) so they are not shown on the chart.

Figure 16 Importance of High Definition in choice of Pay TV supplier



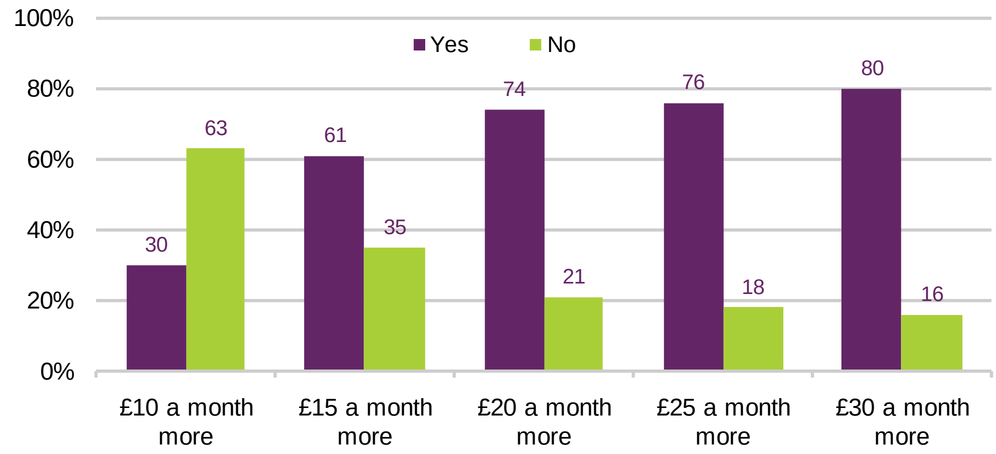
Source: Ofcom research, November 2009

Base: All decision makers with someone in household who watches HD channels (n = 213, 173 Sky customers)

Q. How important to you was the availability of High Definition TV in your choice of pay TV provider?

5.19 We asked pay TV decision makers who subscribe to Sky HD channels whether they would be willing to consider seriously downgrading to a standard definition service if the monthly subscription price for HD increased by different amounts. We asked this question in order to gauge the importance of HD services; the results are not intended to assess the impact of price changes. The results indicate that many subscribers think that HD services are important and valued. For example, 16% said that they would not be willing to seriously consider downgrading to a standard definition service if the HD service increased in price by £30 a month and almost two-thirds (63%) said they would not do so if there was a £10 monthly increase in price.

Figure 17 Whether Sky HD customers would consider downgrading to standard definition if the monthly subscription price increased



Source: Ofcom research, November 2009

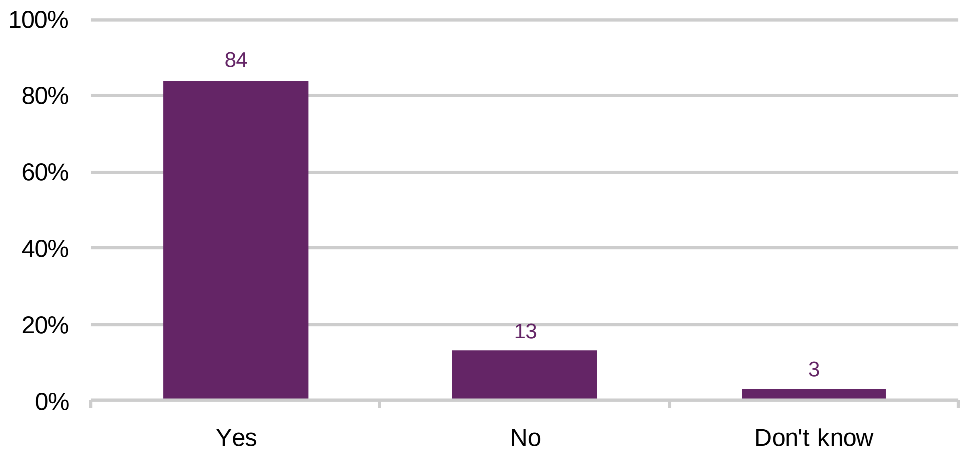
Base: All decision makers who subscribe to Sky HD service (n=191)

Q. If the price of High Definition TV subscription was '£X' a month more than standard definition service, would you seriously consider cancelling your HDTV subscription to downgrade to a standard definition television service?

The importance of interactive service features

5.20 Amongst Sky Sports subscribers the majority (84%) were aware that interactive service features are available if viewing through a Sky satellite set top box.

Figure 18 Awareness of interactive features



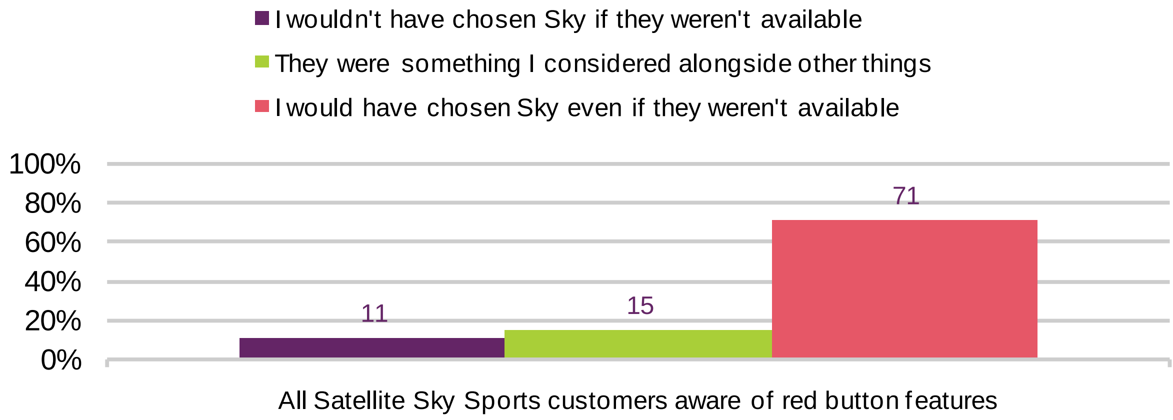
Source: Ofcom research, November 2009

Base: All decision makers with a pay TV service who subscribe to Sky Sports (n=326)

Q. Did you know that you can get some extra features using the red button on Sky Sports if you are watching the channel through a Sky Satellite set top box?

5.21 The majority (71%) of Sky Sports satellite subscribers say that they would have chosen Sky even if the interactive features were not available. Eleven per cent said that they wouldn't have chosen Sky if interactive features were not available.

Figure 19 Importance of interactive features when subscribing to Sky Sports



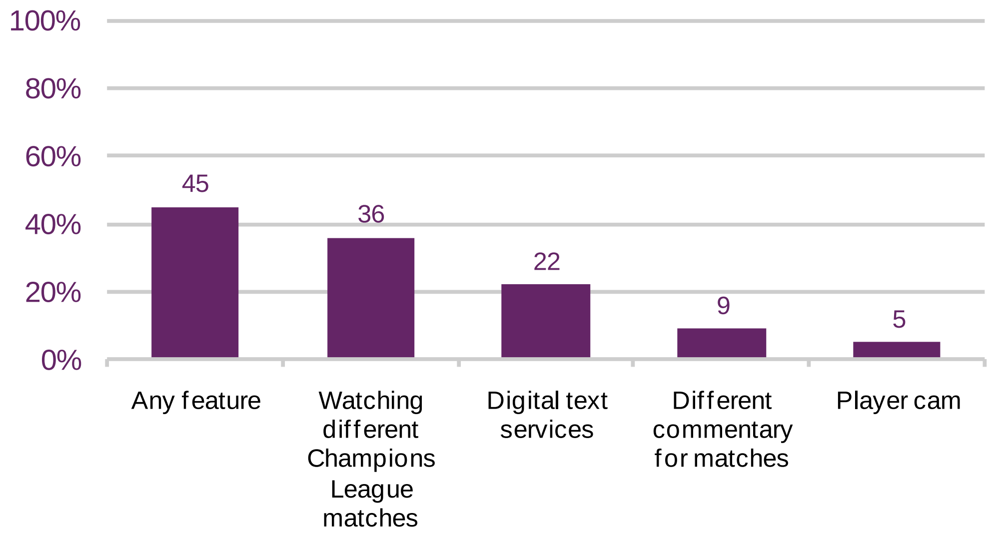
Source: Ofcom research, November 2009

Base: All decision makers with a satellite pay TV service who subscribe to Sky Sports and are aware of Red Button features (n=224)

Q. Which of these statements best describes how important the availability of these extra 'red button' features on Sky Sports was to you in your choice of Pay TV provider?

5.22 Figure 20 shows that digital text services and watching different Champions League matches are the most used interactive features on Sky Sports.

Figure 20 Interactive features used by Sky Sports subscribers



Source: Ofcom research, November 2009

Base: All decision makers who subscribe to Sky Sports (n=326)

Q. Which, if any, of these red button interactive features do you use?

5.23 We asked Sky Sports customers who are aware of interactive features whether they would be willing to seriously consider downgrading to a service that did not have interactive features if the monthly subscription price for the channel with interactivity increased by different amounts. We asked this question in order to gauge the importance of interactive services; the results are not intended to assess the impact of price changes. The results indicate that the majority (71%) said that they would seriously consider downgrading to a channel without interactivity if the interactive service increased in price by £10 a month.

Figure 21 Whether Sky Sports customers would consider switching to a Sky Sports subscription without interactive features if it was cheaper

Source: Ofcom research, November 2009

Base: All decision makers who subscribe to Sky Sports and who are aware of the Red Button features on Sky Sports (n=265)

Q. Would you seriously consider changing to a Sky Sports subscription without the interactive red button features if it was £X cheaper than what you currently pay?

Comments on the survey

5.24 As Sky has requested similar details on research in the past we sent a copy of the survey questionnaire and results to them. Sky sent us some comments on the survey, which broadly fell into two categories. The comments are summarised in the tables below, along with our responses. Sky also stated that is was not in a position to comment on Ofcom's interpretation of this survey (which was not provided to Sky) (March 2010 Sky Submission, paragraph 1).

5.25 Figure 22 summarises the comments that were made about the sample and hypothetical questioning technique. These are issues that affect many consumer surveys. We recognise the limitations of hypothetical questioning and survey sampling. However we consider that this survey is a valid part of our evidence base, provided that – as with all such surveys – the results are interpreted with due caution.

Figure 22 Comments on the methodology and limitations of hypothetical research

Summary of comments by Sky	Ofcom response
Hypothetical situations Sky commented that some of the questions are hypothetical and such questioning can be subject to hypothetical bias in responses. The questionnaire contains no way of dealing with such bias.	We acknowledge and are aware of the limitations of survey research, particularly in regard to hypothetical questioning. We apply appropriate caution and weight to the evidence collected from such questioning.
Small sample sizes Sky commented that parts of the survey do not have sufficient number of respondents for the results to be reliable – particularly in relation to the views of respondents who are not Sky subscribers.	We are aware that smaller sample sizes carry wider error margins. Where sample sizes are less than 100 we apply particular caution to the results.
Representative of sample populations Sky commented that the responses to some questions suggest that some groups are disproportionately represented in the survey sample. For example: Sky broadband subscribers amongst all Sky subscribers, Virgin Media subscribers who subscribe to Sky's Sports channels among Virgin Media households, and Pay TV subscribers who live in non-cable areas among UK pay TV subscribers.	To some extent this is to be expected with any survey research, although we agree that incidences of sub groups should be broadly similar to known population statistics. With any survey research it should be expected that some sub-groups will be disproportionately represented. Quotas have been set amongst demographic groups to ensure the sample is representative of the UK adult population at a high level, but it is impractical to set precise quotas to ensure that the incidences of every relevant sub-group within the sub groups accurately reflect the incidence in the population. Our survey sample is based on adults, whereas available market data is based on subscribers, so direct comparisons between these statistics cannot be made and we would expect to see some differences if attempts are made to compare the figures. For example we know from other research that the incidence of 'bundled' services such as TV and broadband is greater in homes with more people living in them. We would therefore expect to see higher incidences of these services in a sample of adults than in data based on 'household' subscribers. The same principle is likely to apply to Virgin Media subscribers who subscribe to Sky Sports. Our survey has been weighted to ensure it is representative of cabled and non-cabled areas. Therefore we do not believe that these groups are disproportionately represented to any significant degree.

5.26 Figure 23 summarises specific comments made that are specific to the questions asked in this survey or the way in which responses are interpreted. We respond to each of these in the table.

Figure 23 Comments on the framing of questions and analysis of responses

Summary of comments by Sky	Ofcom response
Ambiguity/ incomplete hypothetical situations Sky commented that a number of the hypothetical situations put to respondents are too incomplete and/ or ambiguous for their response to be meaningful.	With any hypothetical questioning it is important to describe a simple, clear concept to respondents. In our questionnaire design we have had to strike a balance between detail and simplicity. We believe we have the balance right and that responses are relevant and useful.
Regularity of movie viewing Sky commented that the process adopted for categorising consumers in terms of the frequency with which they watch recent movies is unlikely to produce reliable results. Sky also noted that the list of movies shown to respondents was based on movies in August, during the school holidays and therefore includes more children's movies than might be expected at other times of the year.	We believe that our question was well designed and the resultant data provides an objective measure of consumers level of interest in movies. The list of 15 films contains a mix of genres, that are likely to be of interest to the full range of different age and interest groups.
Prompted responses Sky commented that in several parts of the survey unprompted, then prompted responses were obtained from respondents. Sky note that there are substantial differences between prompted and unprompted questions and assert that it is a highly unusual approach to survey design.	We believe that asking questions in this manner is a commonly used survey research questioning technique. It is because of the differences in unprompted and prompted responses that are typically found that it is important to distinguish between the two questioning approaches. In general we consider unprompted responses to under-state and prompted responses to over-state reality. By capturing both prompted and unprompted responses to questions we believe that we obtain a range within which the real figure must lie. Ofcom has used similar questioning techniques in other research in the past, for example in 2008 PSB research (http://www.ofcom.org.uk/consult/condocs/psb2_phase2/annex8.pdf) and the 2009 Consumer Experience report. (http://www.ofcom.org.uk/research/tce/ce09/research09.pdf)
Aggregation of responses Sky commented that some responses have been aggregated in ways that are not possible to examine (an example is given).	The aggregated responses referred to do not feature in the research annex or statement and as such are not relied on.
Incorrect responses Sky commented that some respondents gave responses that appear to be incorrect, due to imprecise knowledge of the products and services used by their households. For example, Sky noted that some Virgin Media customers said that they watch Sky Sports channels in High Definition or use interactive features to watch different Champions League matches, when such a service is not available to them.	The examples given by Sky are not *necessarily* incorrect responses, as Virgin Media customers could have access to these services in locations other than their home (for example a friend's house or in a public house). However we agree that it is likely that some of these responses are incorrect, as a consequence of imprecise knowledge of products and services. We note that consumer knowledge is imperfect, and that the survey results are indicative of this. However, an incorrect response given to one question does not mean that the respondent's answers to other questions are not valid.

5.27 Sky also made a number of comments regarding specific results arising from the survey, in relation to:

- The importance of premium sports and movie channels.
- The effectiveness of competition and the competitive position of Virgin Media.
- The importance of high definition television services.
- The importance of Sky Sports interactive services.
- Consumer switching.

5.28 We address Sky's comments under each of these points below.

The importance of premium sports and movie channels

5.29 Sky argued that our survey provides no support for the proposition that Sky's premium sports and movies channels are of particular significance. Sky noted that less than one fifth of subscribers mentioned sports channels, and only 6% mentioned movies channels, as a reason for subscribing to pay TV, whereas 52% mentioned access to a range of channels. Similarly, Sky noted that Sky Sports was mentioned by only a fifth of viewers as an important feature of their pay TV service service.

5.30 Most respondents gave only one answer to the "reasons for subscribing" question, to which there were a wide range of possible answers (responses were not prompted, although they were 'probed' – i.e. respondents were asked if they had 'any other reason' for subscribing). As such, the responses can be taken as the primary reason for subscribing, but not necessarily the only reason.

5.31 Furthermore, it is to be expected that respondents who did not subscribe to sports channels would not mention sports channels as their primary reason for subscribing to pay TV. Nearly 43% of Sky Sports subscribers mentioned sports channels as their reason for subscribing, while 18% of Sky Movies subscribers mentioned Movies channels as their primary reason. This is broadly consistent with the results of Ofcom's 2008 'willingness to pay' omnibus survey (see Figure 36 of the main document).

5.32 Similarly, 71% of Sky Sports subscribers mentioned Sky Sports channels, or sports generally, as among the most important features of their service. Among Sky Movie subscribers, 22% mentioned Sky Movies and 9% mentioned new release films. Although they were asked for three features, respondents on average mentioned two features in responding to this question.

5.33 We therefore consider that the survey supports the view that Sky Sports is highly important to those households who subscribe to it. It also, though to a lesser extent, supports the view that movies channels are important.

The effectiveness of competition and the competitive position of Virgin Media

5.34 Sky argued that the survey showed Virgin Media was at no disadvantage in competing for premium pay TV subscribers, because:

- When asked why they chose their pay TV provider, the main reason given by Virgin Media subscribers was that it was cheaper and/or provided a competitively priced offer. Also, very few Sky subscribers said they did not consider Virgin Media because it was too expensive.
- There was no evidence of a lack of awareness of the availability of Sky's premium channels on Virgin Media: half of those living in cable areas indicated they could get Sky's sports channels from Virgin Media, with a similar result for movies.

5.35 Virgin Media customers are generally likely to consider that Virgin Media is competitive with Sky (otherwise they would have an incentive to switch). The figure cited by Sky relates to all Virgin Media customers, not premium subscribers (only a small number of respondents were Virgin Media premium subscribers). That nonpremium Virgin Media customers see their provider as competitive with Sky on price has little bearing on the question of whether Sky is acting on an incentive to weaken Virgin Media as a competitor in the provision of premium channels.

5.36 While few Sky customers who considered Virgin Media said they did not chose Virgin Media because it was too expensive, most respondents gave only one answer to this question without prompting. With prompting, more than 25% said that they chose Sky because it was cheaper / competitively priced, while over 20% said they wanted to get Sky Sports.

5.37 We accept that a substantial number of Sky subscribers are aware that Virgin Media offers premium channels. However, our view that Virgin Media is at a disadvantage when competing for premium pay TV subscribers is strongly evidenced by Virgin Media's low share of the retail market for packages including Core Premium channels, and the low penetration of such packages among Virgin Media subscribers, as discussed in Section 7 of the main document. Set against this evidence, we do not consider the fact that half of Sky subscribers are aware that Virgin Media offers premium channels demonstrates that Sky faces strong competition from Virgin Media for the supply of these channels.

The importance of high definition television services

5.38 Sky said that HD-related questions were all addressed to the minority of consumers who had taken up such services, who were untypical of the population. Sky also noted that few subscribers mentioned HD as a reason for subscribing to pay TV, or as among the most important features of their service, or as a reason for choosing Sky over Virgin Media.

5.39 As noted above, one third of Sky subscribers said that HD was crucial to their choice of pay TV provider, and almost two-thirds said that they would not switch to a service without HD to save £10 per month. Indeed the premium paid by Sky's HD subscribers (around £10 per month) indicates the importance of this service to these subscribers.

5.40 We recognise that early adopters of HD may be untypical of subscribers generally. However, we consider that their responses provide evidence of the extent to which HD comes to be seen as a "must have" after it has been adopted, whereas non-users of HD are very unlikely to have an informed view on the subject.

5.41 Most people gave only one reason for subscribing to pay TV, and on average two important features of their service. Given the importance of content as a driver of demand, the fact that most subscribers do not have HD, and the fact that many of those who do will have started their pay TV subscription before HD was introduced, we would not expect HD to be a leading reason for subscribing to pay TV, or among the top two important features of their service for most subscribers.

5.42 Our concerns in relation to HD are generally forward-looking, as we consider that it will be an increasingly important differentiating feature of pay TV services in future. We recognise that a survey, which offers a snapshot of the present, can throw only a limited light on the future importance of HD.

The importance of Sky Sports interactive services

5.43 Sky noted that one in ten respondents who were aware of interactive services said they would not have subscribed to Sky had the service not been available. Sky considered this figure implausibly high, although it did not advance any reason for this view. However, it said this suggested that interactive services influenced the subscription decision of only a small percentage of pay TV subscribers.

5.44 Sky noted the finding that over 40% of Sky premium subscribers would not seriously consider switching to a Sky Sports package without interactive services for a saving of £5 per month. Sky said that at face value this indicated that Sky subscribers placed considerable value on interactive services. However, Sky argued that this question made no effort to deal with obvious potential for hypothetical bias, and that it asked subscribers only whether they would "seriously consider" switching, not whether they would actually do so.

5.45 We recognise that interactive services are less important than content and HD services. Only 9% said they would not have subscribed to Sky had the service not been available. However, as no other pay TV provider offers packages including Core Premium channels with interactive features, this suggests that these subscribers would not subscribe to Core Premium channels at all if they did not have interactivity. Even if the proportion of potential subscribers with this strength of preference for interactivity is relatively small, this does not contradict our view that, given a choice of pay TV providers offering Core Premium channels, a significant proportion would choose a provider who offered interactive services over one who did not.

5.46 The finding that over 40% of Sky premium subscribers would not seriously consider giving up interactivity to save £5 (and 20% would not seriously consider doing so to save £10) supports the view that interactivity is important to a significant number of subscribers.

5.47 We recognise the possibility of hypothetical bias in this response. However, the question relates to a hypothetical price saving. We consider the risk of hypothetical bias greater where customers are asked about a price increase, because respondents have an incentive to exaggerate their price responsiveness (as a signal to their provider that they should not increase prices). Moreover, the purpose of this question was not to make a quantitative prediction of what would happen in a future scenario. Rather, it was to gauge the strength of demand for interactive service by asking about them in concrete terms.

5.48 As noted, Sky said that the question asks subscribers only whether they would seriously consider switching, not whether they would do so. We consider it unlikely that respondents, having just said they would seriously consider doing something, would then go on to say that they would not actually do it. If they knew they would not change their behaviour in these circumstances, they would have no reason to consider doing so. Given the hypothetical nature of the question there is likely to be some uncertainty among consumers about their future actions, which could not have been addressed by putting the question differently, so we consider the distinction Sky makes to be spurious.

Consumer switching

5.49 Sky noted that significant caution should be exercised in relation to respondents' stated willingness to switch between on-demand movie services and a Sky Movies subscription, given the hypothetical nature of the questions.

5.50 Again, our purpose in asking these questions was to gain an insight into the importance of different services, rather than to provide a base for predicting the likely scale of switching under specific scenarios. Our conclusions do not rely on responses to these questions.