ANNEX 7

A CRITIQUE OF OFCOM'S ANALYSIS OF SKY'S INCENTIVES TO SUPPLY ITS PREMIUM CHANNELS TO OTHER RETAILERS

1. Introduction

1.1 Based on its analysis in Section 6 and Annex 8 of the Consultation Document, Ofcom states that it believes that Sky "*does have the incentive to restrict the supply of its Core Premium channels to other retailers and other platforms.*"[1]

1.2 As explained in **Section 5** of this Response, Sky has an incentive to distribute all its channels, including its premium channels, as widely as possible due to the economics of channel production (particularly premium sports channels), where costs are predominantly fixed. A range of factors will influence Sky's ultimate decision about whether to supply its channels to third party retailers and even though Sky may derive some benefits from not supplying them, we consider that these are clearly outweighed by the incentives to supply those channels.

1.3 This Annex explains why Ofcom's analysis of Sky's incentives – both static and dynamic - in relation to the supply of its premium pay TV channels is flawed, and the conclusion should be drawn that Sky would have a clear incentive to supply both Virgin Media and other retailers even in the absence of any legal or regulatory obligation.

1.4 First, we explain why Sky has no static incentive to withdraw its premium channels from Virgin Media. In **Section 5** of this Response, we explained why Ofcom's focus on Sky's incentives to supply Virgin Media is misplaced, due to a combination of commercial and regulatory risk, and that Ofcom should have focused on Sky's incentive to supply retailers on other platforms. Nevertheless, some general principles of Ofcom's model of supply to Virgin Media may inform consideration of Sky's incentive to supply retailers on other platforms. Therefore, in this Annex we address the details of that model.

1.5 Second, we explain why Sky has a static incentive to supply retailers on other platforms.

1.6 Finally, we explain that Ofcom's arguments on dynamic incentives are insubstantial: Ofcom's concerns are neither properly explained nor supported. Ofcom cannot rely on such vague theories to overturn the clear conclusion from static analysis that Sky has a strong incentive to supply its premium channels to other retailers.

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1 Paragraph 6.2 of the Consultation Document.

2. Sky has no static incentive to withhold its premium channels from Virgin Media

2.1 Vertical arithmetic models can be used as a tool to assess 'static' incentives to supply, and have been used in a number of inquiries (primarily merger cases).[2] The main use of this technique is to examine the question of whether an upstream firm has the incentive to supply downstream rivals, and even a simple model can provide a useful way to apply empirical evidence in a systematic way. The underlying principle of this technique is that withholding supply is profitable if the increased retail profits from withholding exceed the wholesale profits that are foregone by not supplying.

2.2 CRA presented a simple vertical arithmetic model in its October 2007 Paper.[3] CRA's approach was to calculate what proportion of subscribers to premium channels on Virgin Media's network would need to switch to subscribing directly to Sky in order for withholding those channels to be profitable and to consider whether that threshold was plausible.

2.3 In the Consultation Document, Ofcom uses a vertical arithmetic model to evaluate Sky's static incentives to continue to supply its premium sports and movies channels to Virgin Media. Ofcom develops estimates as to how many customers it considers would switch from Virgin Media's network to Sky if Sky withdrew those channels, and uses this as an input to a model that calculates how many years it would take for the net present value of the subsequent gain to outweigh the net present value of lost wholesale revenue. The model explicitly takes into account estimates of "*longer-term factors*" such as the direct effect of withholding premium channels from rival retailers on future subscriber movements via churn and acquisitions.[4]

2.4 Ofcom's model shows that withholding premium channels from Virgin Media would lead to a significant initial loss for Sky, of over **[CONFIDENTIAL]** per year in wholesale revenue alone, plus potentially **[CONFIDENTIAL]** of lost advertising revenue. Over time, withholding those channels leads to Sky having more retail subscribers, and (using Ofcom's assumptions) the strategy becomes profitable in later years. But because there is a substantial initial loss to be overcome, Sky must wait until the eighth year for the *cumulative discounted value* of the decision to become profitable.

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2 A vertical arithmetic approach has been used to assess incentives in a number of vertical mergers, including Thales/Finmeccanica/Alcatel Alenia Space & Telespazio, Nokia/Navteq and TomTom/Teleatlas.

3 'Sky's 'incentives' to foreclose competition in the UK pay TV industry: a response to the complaint', submitted as Annex 4 to Sky's Response to the Complaint, October 2007 (the "**October 2007 CRA Paper**").

4 For the purposes of this submission, and consistent with previous submissions, we still classify this as a model of 'static incentives', to distinguish it from the traditional economic meaning of 'dynamic incentives' under which Sky might withhold supply today in order to affect competitors' future incentives and behaviour.

2(a) *Ofcom draws the wrong conclusion from its analysis*

2.5 The conclusion that Ofcom draws from its model is that "*over a longer time horizon Sky might benefit from withdrawing supply*".[5] This conclusion is irrational. Ofcom's model shows that, if Sky were to withdraw its premium channels from Virgin Media, Sky would incur an immediate, substantial and ongoing loss in revenue in pursuit of highly uncertain future revenues with a very long payback period. This is an extremely unattractive proposition and not one that Sky would seriously contemplate (even in the absence of the constraints posed by the regulatory framework).[6]

2.6 Ofcom fails to take into account the commercial risk associated with this kind of strategy in such a fast-moving sector. Sky has stressed in its submissions the pace of change in technology and consumer tastes which create great uncertainty as to future demand and the state of competition.[7] This is a theme that Ofcom embraces selectively[8] but ignores in this analysis. The analysis should reflect the fact that the profitability of the strategy relies on Sky retaining an equally attractive sport and movies proposition for at least eight years. Amongst the most obvious risks:

- the number of subscribers that could be attracted is highly uncertain in both the short and long term;

- the attractiveness and profitability of the propositions may change. Sky's Movies proposition, in particular, is in a state of flux due to both changes in input costs (particularly exchange rate risk) and the increasing range of substitutes becoming available through both changes in the 'windows' in which movies can be distributed and changing technology, such as the ability to access a huge selection of movies on demand via a cable or broadband connection;[9]

- there is a possibility that before the strategy has paid back Sky will lose some of its sports or movie rights, as Ofcom acknowledges.[10] Although

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5 Paragraph 6.106 of the Consultation Document.

6 See paragraph 2.6(b) of **Section 5** of this Response.

7 See, for example, paragraphs 3.7 to 3.13 of Part B of Sky's Response to the Complaint, paragraph 5 of Part 1 of Sky's Response to the First Consultation Document, and Sky's response to Question 2 (Part 3 of Sky's Response to the First Consultation Document).

8 For example, the first sentence of David Currie and Ed Richards' introduction to Ofcom's publication 'Communications: the next decade' reads, "*The reality of convergence - and the sweeping transition, from analogue to digital technologies - is radically changing the communications sector*". The foreword to Ofcom's 2008 'Communications Market Report' highlights that "*New technologies are converging to transform industry structures and user behaviour*" and "*Television consumption is changing*".

9 See **Annex 3** of this Response.

10 See, for example, paragraphs 5.72, 5.108 and 5.113 of the Consultation Document. Ofcom "*recognise[s] that there is inevitably a degree of uncertainty in predicting the outcome of future auctions*" (paragraph 5.72 of the Consultation Document) but that uncertainty is not reflected in its analysis here.

Ofcom concludes that it is likely that Sky will continue to win all such available rights in the short term, the discussion on barriers to entry is focussed on whether entry will take place in the near future on a scale that undermines Sky's alleged dominance. Its conclusions on whether Sky might lose **some** rights are less certain, and Ofcom surely cannot be confident that its conclusions will hold eight years from now. It is also important to note that the profitability of Sky's premium sports channels could be affected by the loss of rights other than FAPL, i.e. without further entry into Ofcom's narrowly defined market for premium sports channels featuring live Premier League football.

2.7 Withholding premium channels from Virgin Media results in an immediate loss and a deferred payback, and so any risk to projected outcomes in future periods reduces the attractiveness of the strategy. In this case the risk is considerable.[11] Notably, in the latter two examples above, the risk is almost entirely one-way, i.e. potential downside for Sky with no potential upside.

2.8 Sky would not be investing in new technology or fixed assets which would confer a lasting cost advantage. Sky would be foregoing revenues in an attempt to effectively 'buy' a bigger subscriber base over a long period of time. But any advantage gained would be both ephemeral and contestable - subscribers acquired as a result would have revealed that they are sensitive to Sky's premium content, and thus there is a great risk of losing them should Sky's content become less attractive in the future.

2(b) *The key inputs in Ofcom's model are heavily reliant on unsupported assumptions and data that are not fit for purpose*

2.9 As CRA explained, when introducing its vertical arithmetic model, the key variable in this analysis, and the one around which there is arguably the most uncertainty, is the proportion of customers that would switch from Virgin Media to Sky if Sky were to withhold its premium channels from Virgin Media. CRA's approach was to calculate what proportion of customers would have to switch in order for withholding premium channels from Virgin Media to be profitable.

2.10 Ofcom departs from CRA's model primarily by estimating how many customers would immediately switch and making assumptions about the number that would switch over the longer term. The latter includes both those that would switch directly from Virgin Media to Sky, and those who would join or remain with Sky were it to withhold its premium channels but would otherwise have subscribed to Virgin Media. This deterministic approach to the level of switching might be suitable if it were based on any reliable data, but it is not. Ofcom has no reliable evidence for the figures used in its base scenario, and the outcome of the model is highly sensitive to the assumptions that Ofcom makes.

11 The model uses as a discount rate Ofcom's estimate of Sky's "*company-wide pre-tax nominal cost of capital*" (paragraph 3.53 of Annex 8 to the Consultation Document). This is only appropriate for an individual project when its risk is equal to the risk of the company as a whole.

Immediate switching

2.11 Ofcom identifies a group of current Virgin Media premium subscribers who would immediately switch to Sky. Ofcom estimates the size of this group based on survey evidence, with an adjustment for stated preference bias. This input is of critical importance to the model – its impact can be seen in Ofcom's report, where it is stated that simply changing this input within 'confidence intervals' (i.e. the range that Ofcom is 'confident' the true value lies within) can change the 'payback period' from 4 years to 13 years.[12]

2.12 It is therefore inexplicable that Ofcom uses survey evidence which is simply not fit for purpose. Ofcom uses part of a consumer survey (conducted for a separate project), in which some respondents were asked what they would do if Sky Sports or Sky Movies were no longer available from their current pay TV provider. The responses from Virgin Media's customers would in theory be appropriate for use in Ofcom's model. In practice, there are several serious problems with this data:

- the research is materially out of date. The survey was conducted in December 2006, when Sky held all live FAPL rights. Since then, Setanta Sports has begun live FAPL coverage and its channels have been included within Virgin Media's basic XL package. Even under Ofcom's narrow market definition, the competitive scenario at the time of the research is very different from today's. A number of other changes to sports rights have also taken place. It is highly improbable that a survey of Virgin Media customers today would yield the same answers: the entry of Setanta alone can be expected to result in less switching to Sky, and so Ofcom's data would overstate Sky's incentives to withhold its premium channels from Virgin Media;

- the number of respondents is very small: only 49 Sky Sports subscribers and 21 Sky Movies subscribers were asked what they would do if Sky's premium channels were no longer available on Virgin Media's network. Sky does not consider that any robust conclusions can be formed based on the responses of 21 people, and even 49 is not sufficient for a variable of such importance to Ofcom's model;

- because of small sample sizes, Ofcom groups together premium sports-only subscribers and premium sports-and-movies subscribers, even though the two groups may have very different characteristics and responses. Similarly, premium movies-only subscribers and premium sports-and-movies subscribers are grouped together. This also means that some premium sports-and-movies subscribers are counted twice, further reducing the effective sample size; and

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12 Figure 31 of the Consultation Document. This effect is magnified if related assumptions, such as the degree of stated preference bias, are changed within the levels that Ofcom regards as sensitivities.

- Ofcom has previously told Sky that the data used may not be a representative sample.[13] It appears that respondents were selected precisely because they considered various channels, including Sky Sports and Sky Movies, to be "*must have*". Sky cannot be certain from the data provided, but it appears that this sample may be biased in favour of those who consider Sky Sports or Sky Movies to be very important to their subscription decision.

2.13 Sky considers, therefore, that Ofcom's "*evidence*" on switching is unreliable and is likely to be overstated.

2.14 Sky also notes that Ofcom commissioned a further consumer survey, carried out in May and June 2008, which asked a very similar question. In this survey, consumers were asked what they would do if Sky Sports and Sky Movies were no longer available from their current TV provider. Again, the sample sizes for Virgin Media subscribers taking premium channels were too small to provide robust evidence, but the proportion of those respondents who said they would switch to a different provider of pay TV services was much lower than in the previous survey: only 26% of Sky Movies subscribers (compared to the figure of 42% used by Ofcom in its vertical arithmetic model) and 38% of Sky Sports subscribers (compared to 53%).[14] If Ofcom had used these figures, which suffer from the same robustness problem as the figures actually used but are at least up to date, the model would have showed that withdrawing premium channels from Virgin Media would take twelve years rather than eight to become profitable. It is inexplicable that Ofcom has entirely ignored this evidence, and Sky fails to understand why Ofcom did not use this survey to capture a robust sample size of premium subscribers on Virgin Media's network.

2.15 It is notable that Ofcom has failed to consider whether its assumptions about switching are consistent with other available evidence. The obvious example to consider is the closure of ITV Digital on 1 May 2002. At the end of April 2002, immediately prior to its closure, ITV Digital had around **[CONFIDENTIAL]** premium subscribers and around **[CONFIDENTIAL]** subscribers in total. On Ofcom's theory, the majority of those subscribers would have switched to Sky or cable providers within a short period of time. There is however no evidence of such a major subscriber movement. Sky's Chief Executive at the time, Tony Ball, described Sky's subscriber gain from the closure of ITV Digital as "*tens of*

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13 **[CONFIDENTIAL].** Sky therefore questions whether the cable subscribers responding could be considered to be representative of all cable subscribers to Sky's premium channels.

14 ICM Research Online TV Content Survey, question 10, provided to Sky by Ofcom. Sky has assigned those who responded "*Don't know*" in the same proportions as respondents who did answer to ensure consistency with Ofcom's approach in its vertical arithmetic model. The figures we quoted may be inflated since they assume that all who would switch to a different pay TV supplier choose Sky.

thousands" in analyst presentations, and that figure included basic subscribers.[15]

2.16 **Figures 1 to 4** below show total and premium subscribers to (a) Sky and (b) the cable companies which later became Virgin Media, over the period around the closure of ITV Digital, with a blue bar indicating the six-month period after ITV Digital's closure. The charts relating to Sky subscribers include best-fit linear trend lines for the period, as the number of Sky retail subscribers has grown throughout this period. We also include charts showing a 12 month moving average of subscriber numbers in order to remove seasonal effects. Although it is impossible to know exactly what subscriber numbers would have been if ITV Digital had not closed, the data do not suggest any reason to believe that Sky or cable providers attracted a significant proportion of ITV Digital's subscribers within six months of ITV Digital's closure. Nor is there any evidence of a long-term effect. Therefore, Sky considers that there is little reason to believe that a large proportion of Virgin Media's customers would subscribe to Sky in the event of Sky's premium channels being withdrawn.

Figure 1

[CONFIDENTIAL]

Figure 2

[CONFIDENTIAL]

Figure 3

[CONFIDENTIAL]

Figure 4

[CONFIDENTIAL]

The only adjustment Ofcom makes to its survey "*evidence*" is an allowance for "*stated preference bias*", to allow for the possibility that "*respondents may have exaggerated the likelihood of switching to alternative providers*".[16] It is notable that Ofcom's adjustment

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15 Reported at, for example, http://business.scotsman.com/channelfive/BSkyB-viewers-swell-as-MPs.2348343.jp and http://www.warc.com/News/TopNews.asp?ID=11984.

16 Paragraph 3.49 of Annex 8 to the Consultation Document.

is 10%, i.e. if 60% of respondents said that they would switch, Ofcom assumes that only 54% would actually switch. This is in stark contrast with Ofcom's approach in its First Consultation Document, where it appeared to believe that this bias was much more significant. In that document, although its research found that 32% of subscribers to Sky Sports and 43% of subscribers to Sky Movies would drop part or all of their current subscription following a 10% price rise, Ofcom defined separate retail markets because of "*the context of prices that may be above competitive levels and the fact that stated preference survey results frequently over-estimate actual switching levels*".[17] Given that Ofcom found no evidence that prices were above competitive levels, stated preference bias would have had to be in the region of **[CONFIDENTIAL]**% to support such a conclusion.[18]

<u>*Longer term switching*</u>

2.17 Ofcom also considers that the effects of withholding premium channels from Virgin Media will benefit Sky in the longer term via effects on three further types of switching behaviour:[19]

(a) "*Delayed switching of current Virgin Media premium subscribers*"

(b) "*Reduced churn of Sky's own premium subscribers*"; and

(c) "*Choices of 'new' consumers*".

2.18 This further switching is based on "*[Ofcom's] central assumptions on our view of how consumers may react*": [20] in other words, Ofcom has **no evidence** that any of these possible effects are significant. And yet these effects together account for 60% of the retail subscribers that Sky gains over the lifetime of the model and the cumulative effect on the model's predictions is substantial. Without at least two of these effects, the model shows that withholding premium channels from Virgin Media would never be a profitable strategy for Sky.

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17 Paragraph 4.24 of Annex 13 to the First Consultation Document.

18 In order to conclude that there may be a separate retail market for Sky Sports, Ofcom would have to find that increasing its price by 10% would be unprofitable. Since there are no marginal (per subscriber) programming costs for Sky Sports, raising price would be unprofitable if at least 9.1% of subscribers dropped part or all of their subscriptions. Ofcom's survey found that 63% of subscribers would keep their current subscription and 30% would drop at least some element of it (the remainder did not know, and so we scale up 30% out of 93% to give 32%, consistent with Ofcom's approach in the vertical arithmetic model). So stated preference bias must be (32% – 9.1%)/32%, which is 72%. Sky Movies does have a marginal cost, which implies that a price rise would be unprofitable if at least **[CONFIDENTIAL]**% of subscribers would drop part or all of their subscriptions. Therefore to reach a conclusion that Sky Movies forms a separate retail market, stated preference bias would have to be at least **[CONFIDENTIAL]%**.

19 Paragraph 3.26 of Annex 8 to the Consultation Document.

20 Figure 30 of the Consultation Document.

2.19 Sky has examined the evidence available on longer-term switching. First, Sky notes that none of the charts presented above give a clear indication of any significant longer-term effect of the closure of ITV Digital on Sky or cable operators' premium subscriber numbers. Furthermore, the evidence available following the removal of Sky's basic channels by Virgin Media indicates that the effect appeared to be largely confined to the short term. **Figure 5** shows Sky's booking figures in cable areas and non-cable areas.[21] **[CONFIDENTIAL]**.

Figure 5

[CONFIDENTIAL]

2.20 A further problem with Ofcom's assumptions is that they imply that consumers' choices about subscription television and, in many cases, broadband and telephony, are largely or entirely driven by premium television channels.

2.21 To take effect (iii) as an example, Ofcom assumes that exactly the same number of 'new' consumers would subscribe to pay TV, but 90% of those who would have chosen Virgin Media instead come to Sky. Sky considers this figure implausible. It is likely that some will come to Sky, but many will still choose Virgin Media (due to the range of other factors that attract them) and others will not take a subscription from either provider. Although this may seem a relatively innocuous assumption, changing the assumption for effect (iii) can make a significant difference to the model's outcome, as demonstrated by two examples in **Table 1**.

Table 1

Changing assumptions about households who will move from free to air to Virgin Media if Sky continues to supply premium channels to Virgin Media

	Destination of subscribers (who would have joined Virgin Media from FTA in the base case)			Payback period for Sky
	% to Sky	% to Virgin	% remain FTA	
Ofcom's assumption	90%	10%	0%	8 years
Variant 1	50%	10%	40%	12 years
Variant 2	50%	40%	10%	Beyond life of model (>12 years)

2.22 The impact of the assumption behind effect (ii) is even stronger. If withholding premium channels from Virgin Media did not affect Sky's churn, then the model predicts that such withholding would *never* be profitable.

21 In practice it is not possible reliably to track whether new additions are switchers from cable. Sky considers that this analysis is the best available proxy.

2.23 Sky does not consider that the scale of any of these assumptions is justified, and Ofcom's "*sensitivity analysis*" is limited to small adjustments in them. Ofcom should either seek evidence to show that these effects are plausible, or remove these factors from its model.

2(c) *Ofcom's model suffers from a serious conceptual flaw*

2.24 There is also a conceptual flaw in the model, which Ofcom does not appear to have recognised. Ofcom has made a number of unsubstantiated assumptions about subscriber movements, as described above, but has not considered their aggregate effect. In fact the model predicts that Sky withholding its premium channels from Virgin Media will *increase* the total number of households who subscribe to Sky's premium channels.

2.25 The model covers 12 years, and shows that by the end of year 12, withholding premium channels from Virgin Media would lead to Sky gaining nearly **[CONFIDENTIAL]** premium subscribers. Yet, in Ofcom's model, Virgin Media has only **[CONFIDENTIAL]** subscribers at any time if Sky continues to supply its premium channels. Therefore, in Ofcom's model withholding those premium channels has somehow persuaded nearly 100,000 *extra* households to take out a premium subscription, even though consumers have less choice of retailers of premium channels and the model does not assume any extra marketing activity or price change by Sky. [22]

2.26 This result is completely implausible, and incompatible with the standard view, which is that making channels available over more platforms will increase the total number of subscribers to them.[23]

2.27 **Figure 6** illustrates this flaw. It shows the number of subscribers Sky gains (based on Ofcom's model) from withholding its premium channels from Virgin Media. Intuitively, since Sky is not changing its premium channels in any way (content, price or marketing), there is no reason why simply withholding supply of them would attract extra customers. Therefore, the theoretical maximum subscriber gain Sky could hope for is to attract every one of the premium subscribers Virgin would otherwise have had (in the 'base case' where Sky does supply). That is shown on the chart: Sky's gain exceeds that amount in year 7.

2.28 In reality, however, it is virtually impossible that Sky would attract all of those subscribers. Some would be unable or unwilling to put up a satellite dish; others' choices are driven by other aspects of Virgin's services (e.g. broadband, telephony, basic channels, VoD) and they would not be motivated to switch by the non-availability of premium channels. Ofcom's model allows for this to some extent by noting how many subscribers Virgin retains and who *would have*

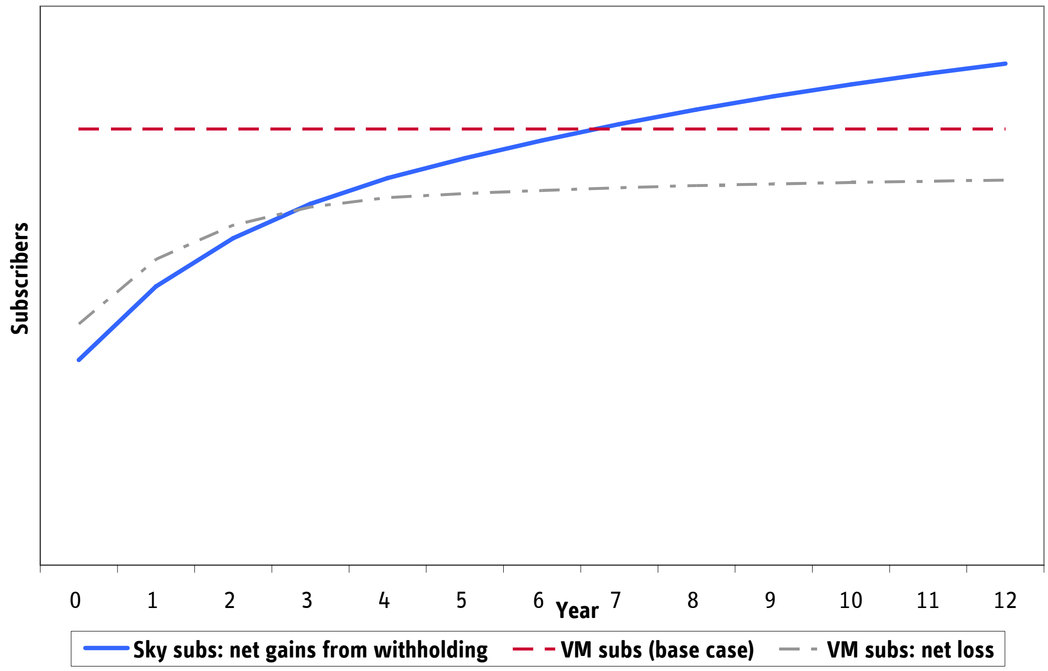
22 Even under an alternative scenario where Sky also experiences no retail premium subscriber growth if it supplies its premium channels to Virgin Media, i.e. the total number of premium subscribers remains constant over time, withholding premium channels from Virgin Media still causes the total number of premium subscribers to grow by nearly 100,000 over the lifetime of the model.

23 As Ofcom recognises in its modelling of Sky's incentives to supply retailers on the DTT platform.

taken premium channels if they were supplied. These subscribers should be subtracted from Virgin's base case premium subscribers to give Virgin's *net loss* of subscribers, i.e. the net number that leave Virgin and become available to Sky, and this net loss is the more realistic maximum possible subscriber gain. This is also shown on the chart below: according to Ofcom's model, the number of subscribers Sky gains exceeds this in year 3.

Figure 6

Sky subscriber gains and Virgin Media subscriber losses in Ofcom's model when Sky withholds supply of premium channels [SCALE REDACTED AS CONFIDENTIAL]



2.29 In other words, Ofcom's model predicts that Sky will have more subscribers to its premium channels in total (wholesale plus retail) if it withholds supply of those premium channels from Virgin Media. It is therefore unsurprising that the model finds this to be a profitable strategy in the long term. But this prediction is entirely implausible. Since it derives from the combination of various assumptions, there is no single obvious way to 'correct' for this error. However, it is clear that this problem significantly *overstates Sky's profits* from withholding its premium channels and therefore significantly *underestimates* the time taken for such a strategy to become profitable.

2(d) *Ofcom's model suffers from serious data errors*

2.30 Ofcom's model also suffers from a number of data errors, of which the most significant are as follows:

- Ofcom uses a very narrow definition of variable costs. Pay TV retailers incur relatively small truly fixed costs, some per subscriber variable costs, and a number of 'lumpy' costs – for example, if Sky adds a single subscriber, its call centre costs are not affected, but if Sky adds a significant number of subscribers, Sky will need more call centre capacity.[24] Ofcom's use of per subscriber costs as a proxy for variable costs would be a reasonable approximation if Sky were adding a small number of retail subscribers. But in Ofcom's model, Sky gains **[CONFIDENTIAL]** additional retail subscribers by withholding premium channels from Virgin Media, and therefore can be expected to incur further 'lumpy' costs. Therefore Ofcom understates Sky's retail costs and so overstates Sky's incentive to withhold its premium channels from Virgin Media;

- Ofcom has misinterpreted data that Sky provided on Sky's retail costs.[25] The variable costs that Sky submitted relate to Sky's UK residential activities only, and not, as Ofcom believes, to Sky's commercial operations or activities in the Republic of Ireland.[26] Therefore Ofcom uses too large a subscriber figure when converting these total variable costs into per subscriber variable costs. This understates Sky's retail costs and overstates Sky's incentive to withhold its premium channels from Virgin Media;

- Ofcom's reported switching data for Sky Sports subscribers does not sum to 100%: it is claimed that (using Ofcom's "Scenario 2" as an example) 34% would remain with Virgin Media, 53% would switch to Sky and 10% would switch to another provider. These sum to 97%. Sky does not have the information to determine what the correct proportions would be, but they should sum to 100% (as the data for Sky Movies subscribers do).

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[24] See, for example, Sky's response to question 20 of Ofcom's information request of 18 July 2007, where Sky submitted the costs that Ofcom uses in the model. For example, **[CONFIDENTIAL].**

[25] *Ibid.*

[26] The fixed costs in that response did include both commercial and Republic of Ireland activities, because Sky was not able to separate them from UK fixed costs.

3. Sky has no static incentive to refuse to supply on DTT

3.1 Ofcom also carries out a similar modelling exercise to assess Sky's incentives to supply other retailers on DTT, using a 'steady-state' model. This model indicates that Sky would have an incentive to supply its channels to other retailers, even at wholesale prices well below those currently paid by cable operators.[27]

3.2 Sky recognises that there is a degree of uncertainty around these figures, but notes that the finding of an incentive to supply is relatively robust to the assumptions used. This supports Sky's argument that it has a clear incentive to supply other retailers.

3.3 Ofcom suggests that incorporation of "*longer-term*" static factors, such as those used in the model of supply to Virgin Media, might change this conclusion. Specifically, paragraph 6.97 of the Consultation Document says:

> "*…given the small (or non-existent) existing subscriber base of a potential new customer, and the lower new switching costs to new platforms, particularly those on DTT, failing to supply retailers is likely to be profitable within a significantly shorter time period than is the case with Virgin Media*".

This is a rather vague allusion to two points made elsewhere in the Consultation Document, and proper examination shows that the evidence simply does not support Ofcom's argument.

3(a) *Size of subscriber base*

3.4 Ofcom's first point relates to the current size of a retailer's subscriber base. CRA argued that there can be no presumption that it is more profitable to withhold its premium channels from a smaller retailer: both the costs and benefits of withholding increase with the size of the retailer.[28] NERA made a similar point in its submission on behalf of BT.[29] After considering these arguments, Ofcom "*agree[s] in principle that Sky's incentives to wholesale to new platforms may not differ systematically from those for existing platforms*".[30] Ofcom gives no other reason why the size of a retailer's subscriber base may affect Sky's static incentives to supply.[31] Ofcom qualifies this statement by adding:

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27 **[CONFIDENTIAL]**

28 Paragraphs 11, 15 and 53-54 of CRA's paper 'Ofcom consultation on the UK Pay TV industry: vertical integration and short-run/long run issues', submitted as Annex 4 to Sky's Response to the First Consultation Document (the "**April 2008 CRA Paper**").

29 Paragraphs 41-42 of NERA Economic Consulting's paper, 'Pay TV Market Investigation: Comments on Ofcom Consultation', 14 March 2008, submitted as Annex 2 to BT's response to the First Consultation Document.

30 Paragraph 2.55 of Annex 8 to the Consultation Document.

31 In paragraphs 6.78 to 6.81 of the Consultation Document, Ofcom also suggests that Sky may have dynamic incentives to refuse to supply new retailers. Dynamic incentives are discussed in

"*However, our view is that new platforms may possess characteristics that make a refusal to supply more likely*".[32] But the only example Ofcom gives of such a characteristic is that "*recent pay TV retail entrants have tended to be based on the DTT and DSL distribution technologies, which have large bases of installed equipment. Therefore, switching costs incurred by consumers in relation to these platforms are lower*".[33] Therefore, it appears that Ofcom's claim must rest on the costs of switching to Sky or Virgin Media being higher than the costs of switching to retailers on other platforms.

3(b) *Switching costs*

3.5 It is true that lower switching costs may reduce the incentive to supply in a vertical arithmetic framework. But Ofcom's discussion of switching costs lacks rigour.

3.6 Ofcom says:

> *"Although changing to any new platform requires a new set-top box, and may involve dealing with whatever contractual terms bind the customer to their current provider, IPTV or DTT-based platforms involve reduced additional changes in hardware to cable and satellite. IPTV-based platforms use the existing telephone line, and DTT-based platforms the existing aerial*".[34]

3.7 The most easily comparable aspect of switching costs is the price of equipment and installation. All pay TV subscribers need a set top box and further equipment for the box to receive a signal. Although most homes will already have a telephone line and an aerial installed, consumers do not generally pay for the equivalent equipment needed to receive a pay TV service from Sky or Virgin Media (a satellite dish and a cable connection respectively) because they are subsidised by the retailer. Table 2 shows the lowest prices charged by retailers for a set top box and all other necessary reception equipment, installation and connection. It is readily apparent that these 'switching costs' do not vary greatly between platforms.

Section 5 of this Response, but none of Ofcom's suggested dynamic incentive "*mechanisms*" appear to relate specifically, or with greater force, to new or small retailers.

32 Paragraph 2.55 of Annex 8 to the Consultation Document.

33 *Ibid.* The same point is also made at paragraph 6.62 of the Consultation Document.

34 *Ibid.*

Table 2

Costs of joining a retailer

Retailer	Cheapest set top box	Connection/Installation	Total	Installation
Sky	Free	£30.00	£30.00	Included
Virgin Media	Free	£30.00	£30.00	Included
Tiscali	Free	£30.00	£30.00	Included
BT Vision	Free	£30.00	£30.00	Self-install*
Top Up TV	£89.99	Free	£89.99	Self-install
Top Up TV with 12 month Setanta subscription	Free	£20.00	£20.00	Self-install

**Professional installation also available for an extra fee*

Sources: advertised prices on retailers' websites as of 4 November 2008

3.8 Additional set-up costs are harder to compare because they will not apply to all customers, but Sky considers that, again, they do not support Ofcom's argument. These costs may include:

- for Sky, some people may consider the need for a satellite dish to be an inconvenience;
- for any DTT service, some consumers may require an aerial upgrade;
- for any IPTV service (including BT Vision's hybrid service), the consumer must take broadband from that provider, which may incur further switching costs including, in some cases, a BT line connection fee; and
- for BT Vision and Top Up TV, the consumer must install and set up the equipment (or, in the case of BT Vision, optionally pay an extra installation fee), which will be unattractive for some consumers.

3.9 Accordingly, even a cursory investigation would have revealed that the costs of switching to an operator using DTT or IPTV are broadly in line with costs of switching to Sky or Virgin Media. If "*longer-term*" vertical arithmetic exercises were carried out for different retailers, the precise results would depend on a number of inputs which may differ between retailers, but there can be no presumption that Sky would have less incentive to supply newer or smaller retailers. Therefore Sky considers that the analysis performed by Ofcom is equally applicable to its incentives to supply *all* retailers.

Conclusion on static incentives

3.10 Ofcom's own analysis shows that Sky would have a strong incentive to supply its premium channels to other retailers. In the short term or "*steady state*" supplying is profitable, and the inclusion of "*longer-term factors*" shows that any strategy of withholding premium channels would involve significant losses in the short term in pursuit of speculative and risky future benefits. Although Sky agrees that that the precise results are indicative rather than definitive, they provide no evidence or basis on which to conclude that Sky has an incentive to withhold supply of its premium channels; in Sky's opinion, they demonstrate a clear incentive to supply, especially once allowance is made for the failings of Ofcom's modelling.

4. Dynamic incentives do not change the conclusion of the static analysis

4.1 As discussed above, Sky considers that Ofcom's own static analysis shows a clear incentive for Sky to supply its premium channels to other retailers. It is generally recognised that, in some circumstances, even if firms have a 'static' incentive to supply rival retailers, 'dynamic incentives' not to supply may outweigh that incentive. In an economic context, it has been established that *under certain conditions* firms may have incentives for 'dynamic foreclosure', i.e. refusing to supply downstream rivals today in order to force them out of the market or limit their size. These conditions were established in the *Microsoft* case and have been discussed at length by CRA in papers submitted to Ofcom.[35]

4.2 Ofcom's erroneous conclusions with respect to static incentives, however, mean that it has not developed any robust or meaningful arguments in relation to dynamic incentives. Its arguments are tacked on to the end of Ofcom's extensive discussion of its modelling of Sky's static incentives, and largely relegated to a brief discussion in an annex. The longest discussion of any individual "*dynamic mechanism*" is four paragraphs, and in total they are described in just over two pages. As a result, it would be impossible for Ofcom plausibly to argue that it has found sufficiently credible and strong dynamic incentives to overturn a finding that Sky has strong static incentives to supply its premium channels to rival retailers.

4.3 For completeness, however, in this section we address briefly Ofcom's arguments in relation to dynamic incentives, so far as is possible from their brief explanation in the Consultation Document.

4(a) *Ofcom's "possible dynamic mechanisms"*

4.4 Ofcom identifies four "*possible dynamic mechanisms*"[36] which might provide Sky with a dynamic incentive to withhold supply of premium channels from third party retailers. These are as follows:

(i) impact on the price of content rights;

(ii) impact on Sky's position in the wholesale supply of premium channels;

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35 For example, the October 2007 CRA Paper explained that there must be specific mechanisms that can render a short-term gain in market share persistent and irreversible, and at **Annex 7** to this Response, CRA explains why Ofcom's alleged "*dynamic mechanisms*" do not meet the required standard.

36 Paragraph 2.32 of Annex 8 to the Consultation Document.

(iii) impact on competition for basic-tier subscribers; and

(iv) impact on Sky's buyer power when purchasing basic channels.

4.5 All of these "*mechanisms*" start from the premise that Sky's decision on whether to supply its premium channels to other retailers affects consumers' choice of platform and retailer, and Sky wants to prevent other operators from building retail subscriber bases which could allegedly form the basis for increased future competition in relation to either:

(a) the purchase of premium content rights, in the case of "*mechanisms*" (i) and (ii); or

(b) retailing basic pay TV channels, in the case of "*mechanisms*" (iii) and (iv).

4.6 All four of these alleged "*mechanisms*" fall a long way short of the bar set in *Microsoft*. There, the presence of features not found in the pay TV sector (such as significant network externalities and 'drastic' competition, where the leading firm could conceivably be forced out of the market in the future) made dynamic foreclosure theories plausible, because the gain from withholding supply was so large – *Microsoft* was protecting not only its position of market power, but also its ability to survive in that market. In this case, the burden is on Ofcom to demonstrate that there are in reality significant relevant dynamic incentives to withhold supply. Critically, Ofcom fails to demonstrate that any gain to Sky in terms of market share would be persistent and irreversible.[37]

4.7 Two of the "*mechanisms*" ((iii) and (iv)) are attributed to LECG, but even LECG mentions them only in passing, rather than offering any evaluation of them as a serious basis for withholding premium channels. Furthermore, Ofcom makes no serious attempt to evaluate any of its theories: there is no consideration of evidence for them, other than **[CONFIDENTIAL]** in relation to "*mechanism*" (ii). Nor is there any attempt to quantify the dynamic benefits to Sky of withholding its premium channels from other retailers, let alone to assess whether such benefits could plausibly outweigh the static costs. Sky would be trading off large, certain losses now, against wholly speculative benefits in the future. As with the "*longer-term*" consideration of static incentives, any such future benefits would have to be heavily discounted for risk. Half-baked theories are insufficient reason for Sky to withhold its premium channels, and equally insufficient to form the basis for intrusive regulation.

4.8 Ofcom's failure in this regard is inexplicable since Ofcom notes that "*CRA has repeatedly argued that it is important to identify and evidence mechanisms which link short-run conduct with longer-term ability to compete*"[38] and Ofcom itself says

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37 See *inter alia* paragraphs 9 and 120 of the October 2007 CRA Paper, and paragraphs 69 to 71 of CRA's paper 'Sky's "Incentives" to Foreclose Competition in the UK Pay TV Industry: A response to the comments of LECG and NERA', submitted to Ofcom in July 2008 (the "**July 2008 CRA Paper**").

38 Paragraph 2.29 of Annex 8 to the Consultation Document.

"*We also agree with CRA that it is important to explain carefully the relevant dynamic effects and consider whether those effects are plausible, in light of the available evidence.*"[39] Ofcom's actual examination falls well short of that standard.

4.9 Notably, Ofcom says of the last of these "*mechanisms*" that "*…we have not considered this particular mechanism in detail, particularly as LECG **provided no evidence to support its assertion** or to **explain why it leads to detrimental effects, particularly for consumers***".[40] (Emphasis added.) But Ofcom has provided no proper evidence to support **any** of its assertions on this subject, and has failed to explain why they lead to a detrimental effect for consumers. Ofcom cannot rely on a cursory mention of half-formed theories.

4.10 We explain in the following sections why none of the "*mechanisms*" put forth by Ofcom stands up to proper consideration as a credible dynamic mechanism.

4(b) *Issues related to the purchase of premium content rights*

4.11 Ofcom suggests that if a retailer builds a large subscriber base, that retailer will become a stronger rival to Sky in bidding for premium content rights, which could potentially lead to two consequences for Sky:

- Sky would have to pay higher prices for rights (mechanism (i) above);[41] and
- Sky would be more likely to lose rights when they become available (mechanism (ii) above).[42]

4.12 This section deals with both "*mechanisms*" together since, as Ofcom acknowledges, they are closely linked. Both are based on a theory that the value to a vertically integrated operator of content rights increases with the *current* size of the operator's retail subscriber base. However, Ofcom's analysis of these issues is virtually non-existent, and what little there is contains inconsistencies and glaring omissions. Ofcom also fails to examine the consequences of its "*mechanisms*" for competition and consumers.

<u>*Ofcom's analysis is inconsistent*</u>

4.13 Ofcom's theories are based on its analysis of barriers to entry in premium channel provision. Sky's alleged advantage in bidding for rights is derived from its position as "*the leading retailer on the platform with the largest number of likely subscribers [to premium channels].*"[43] Sky considers that Ofcom's analysis

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39 Paragraph 2.30 of Annex 8 to the Consultation Document.

40 Paragraph 2.44 of Annex 8 to the Consultation Document.

41 Paragraphs 2.33 to 2.36 of Annex 8 to the Consultation Document.

42 Paragraphs 2.37 to 2.40 of Annex 8 to the Consultation Document.

43 See paragraph 5.63 or Annex 8 (paragraph 2.36) of the Consultation Document.

is deficient[44] and Sky has no significant advantage. If Sky is correct, then the "*mechanism*" by which the decision to supply affects bidding for rights does not exist.

4.14 In the alternative, if Ofcom's analysis were correct, then by virtue of being the leading retailer on the leading platform Sky would always win all available rights. It is entirely implausible that Sky's decision to supply or withhold premium channels could cause so many subscribers to change platform in the foreseeable future that Sky would no longer be the leading retailer on the platform with the largest number of likely subscribers to those premium channels. Therefore Sky would have no incentive of this type to withhold its premium channels from other retailers: under Ofcom's own theory it would certainly not affect Sky's chances of winning rights, and any effect on the price Sky would pay would be negligible.

Ofcom's theory overlooks a countervailing effect

4.15 Ofcom fails to recognise that withholding content from a retailer may **increase** that retailer's incentive to bid for rights. For example, if BT wishes to retail content for which Sky currently holds the rights, it has two options: to reach a wholesale agreement with Sky, or to bid for some or all of the rights directly. If Sky supplies its channels to BT, this may reduce BT's incentive to bid for rights.[45]

Ofcom's analysis is not relevant to many important potential bidders

4.16 In order to consider how this theory might operate, it is helpful to distinguish between two types of potential bidders:

(a) any existing or potential channel provider who is not the "*leading retailer*" on a platform. These operators' valuations of rights are **not** affected by Sky's decision to supply premium channels,[46] and hence withholding premium channels from them does not give Sky any advantage in bidding against them; and

44 See **Annex 5** to this Response.

45 This issue has been noted by several industry analysts recently. For example, *The Sunday Times* wrote that Ofcom's proposal "*could… make it less likely for rival broadcasters to get into a bidding war for the [Premier League] football rights, given that they would be able to acquire the channels anyway*". Available at: http://business.timesonline.co.uk/tol/business/industry_sectors/media/article5438786.ece.

Steve Unger's reported comments at the Westminster Media Forum suggested that Ofcom is aware of this issue, but there is no mention of it in the Consultation Document.

46 Ofcom's theory states that Sky can make more money on the DTH satellite platform than any other bidder for rights because (a) Sky is the leading retailer on that platform and can make more money from a given wholesale arrangement than any other retailer, and (b) a vertically integrated wholesaler-retailer can make more money from rights than a deal between a separate wholesaler and retailer. Similarly, Virgin Media can make more money on its platform than any other bidder, etc.

(b) *"leading retailers"*. Under Ofcom's theory, the only type of rival who could realistically be affected by Sky's decision to make its premium channels available, would be one that needs to enter into the supply of premium channels and whose ability to do so is affected by the size of its subscriber base. Even if Ofcom's theory were valid, in practice this category contains only platform operators (and potential platform operators): it includes operators who are not currently vertically integrated into the supply of premium channels, such as BT, and may also include platform operators who are already vertically integrated into channel supply, such as Virgin Media (Virgin Media would need to *expand* into premium channel supply, rather than enter *de novo* – Ofcom's analysis contains no consideration of possible barriers to expansion).

4.17 The first category – which includes Setanta, ITV, the BBC, Channel 4, Five, Disney/ESPN, the Hollywood Studios[47] and any other potential entrant unconnected with a specific platform – would be unaffected by any withholding strategy from Sky. Therefore, Sky would gain from withholding its premium channels only if the competitive constraint in the purchase of rights comes entirely from bidders in the second category. In other words, Ofcom thinks that Sky would be willing to incur a significant static loss from withholding its premium channels but gain no resultant bidding advantage against any firm in the second category. This is implausible. Furthermore, for every retailer in the second category, the countervailing effect discussed above also applies, so the direction of any effect on them is *ambiguous* – i.e. if Sky were to withhold its premium channels from them, the amount they would be willing to bid for rights may increase or decrease.

Ofcom fails to analyse the consequences for competition and consumers

4.18 Even if Ofcom's theories were valid, and Sky did have some incentive to withhold its premium channels in the hope of gaining an advantage in competition for rights, Ofcom fails to consider what the impact would be, i.e. whether there is any consumer detriment from Sky gaining such an advantage, and Ofcom's very brief consideration of relevant evidence to support its "*mechanisms*" is incorrect.

4.19 Ofcom makes no effort to explain how consumers are harmed by Sky paying less for rights, and very little to explore the consequences of Sky winning fewer rights. It is not sufficient simply to claim that if Sky wins fewer rights, there will be more competition and prices will fall. Ofcom must explain its theory of competition between suppliers of premium channels, and how wider ownership of the same limited set of rights leads to lower wholesale and retail prices. For example, Sky notes that splitting FAPL rights between Sky and Setanta did not

47 Ofcom's discussion of barriers to entry in Annex 7 of the Consultation Document concludes that the Studios are unlikely to enter at a scale which would erode Sky's market power. Because that is the context for the assessment, Ofcom does not reach proper conclusions on the relevant question here, which is whether one or more could enter at all (including the possibility of a hybrid movies and general entertainment channel such as HBO).

result in reduced prices for consumers wanting to watch all televised FAPL matches.[48]

4.20 The only evidence Ofcom offers for this theory of competition is **[CONFIDENTIAL].** Therefore Ofcom provides no evidence which actually supports its theory.

4(c) *Issues related to retailing basic channels*

4.21 Ofcom argues that Sky may have an incentive to withhold supply of its premium channels in order to affect competition in the provision of basic channels, either by raising rivals' average costs or by increasing Sky's buyer power for basic channels. This includes "*mechanisms*" (iii) and (iv) above.

4.22 In "*mechanism*" (iii), as far as can be discerned, Ofcom's argument is that there are economies of scale and scope among retailing basic-only pay TV services and premium pay TV services, and Sky has an incentive not to supply its premium channels to other pay TV retailers in order to increase those retailers' average costs to a level higher than they might otherwise be.[49] This "*mechanism*" is mentioned only in passing by LECG; Sky is not aware of any consultation respondent putting this forward as a properly specified theory.

4.23 Ofcom's analysis is entirely inadequate, for a number of reasons:

- the extent of economies of scale is an empirical matter. Ofcom offers no evidence that they are important in pay TV retail services. In Sky's experience, both fixed costs and scale economies are small at the retail level;[50]

- Ofcom also refers to economies of scope. This is not the argument made by LECG, who referred only to scale, and Ofcom's extremely brief chain of reasoning appears to conflate economies of scale and scope. Nevertheless, the extent of economies of scope is again an empirical issue which Ofcom does not examine; and

- Ofcom's analysis is incomplete. Ofcom does not explain how the size of other operators' costs should have any significant impact on Sky, or why Sky would be willing to incur substantial losses in order to influence those costs. It is important to note that traditional theories of 'raising rivals' costs' for competitive advantage relate to *marginal* costs,

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[48] Although it is difficult to make a precise comparison because (a) Setanta's FAPL coverage is bundled with other content and channels, and (b) the content of Sky's sports channels also changed, it is possible to compare what a consumer wishing to watch all live televised FAPL matches would have had to pay. On the DTH satellite platform that Sky Sports subscriber could buy a season ticket to Prem+ for the 2006/07 season for £50, whereas Setanta cost £9.99 per month the following season. Therefore he would have had to pay at least £99.90 to subscribe to Setanta for ten months, an increase of £49.90.

[49] Paragraphs 2.41 to 2.43 of Annex 8 to the Consultation Document.

[50] See **Section 5** of this Response.

and Ofcom offers no reason to think that marginal costs are affected by this "*mechanism*".

4.24 As "*mechanism*" (iv), Ofcom raises an allegation made by LECG that refusal to supply premium channels to other pay TV retailers provides Sky with increased buyer power in relation to licensing basic pay TV channels.[51] Again, this is mentioned only in passing by LECG, and indeed Ofcom states that "*we have not considered this particular mechanism in detail,[52] particularly as LECG provided no evidence to support its assertion or to explain why it leads to detrimental effects, particularly for consumers.*" Given that Ofcom appears to have dismissed this mechanism, we also do not address it.

Conclusion on dynamic incentives

4.25 The focus of Ofcom's analysis is Sky's static incentives to supply its premium channels. Ofcom clearly does not regard dynamic incentives as a crucial part of its argument, and its analysis is cursory. It consists of little more than half-developed theories of possible "*mechanisms*" and Ofcom gives no serious consideration to their plausibility, let alone evidence for them. Sky has demonstrated above that static incentives show a clear incentive for Sky to supply its premium channels. If Ofcom wishes to claim that Sky has an incentive to withhold its premium channels, given that static analysis shows the opposite, then dynamic incentives become a key part of Ofcom's argument: Ofcom must show that dynamic incentives to withhold premium channels exist, and that they are sufficiently large and certain to outweigh static incentives to supply. The analysis of dynamic incentives in the consultation document is wholly insufficient for this purpose and cannot be used as a basis for regulation.

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51 Paragraphs 2.43 to 2.44 of Annex 8 to the Consultation Document.

52 In fact, Ofcom has not addressed ***any*** of the alleged "*mechanisms*" "*in detail*", and has not addressed this "*mechanism*" ***at all***.