Prepared For:

BSkyB

Ofcom's Consultation on the UK Pay TV Industry: *Vertical Integration and Short-run/Long-run Issues*

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EXECUTIVE SUMMARY

1. In an earlier report prepared for BSkyB ("Sky"),[1] we addressed the complaint submitted to Ofcom by a number of competitors (BT, Virgin Media, Setanta and Top Up TV, or "the Complainants"), alleging that Sky has "incentives" to foreclose competition in the UK pay TV industry, and calling for an industry reference to the Competition Commission. We explained how the Complainants' case suffered from a number of logical and economic flaws, as a result of which their main conceptual construct (the "vicious circle") lacked all foundation.

2. This document reviews the analysis and the arguments contained in Ofcom's Consultation Document[2] ("the Consultation Document") on the likely "short term" and "long term" consequences of vertical integration in pay TV (in particular when combined with certain industry characteristics such as content aggregation). A major "area of concern" identified in the Consultation Document is "the vertical relationship between wholesalers and retailers of premium content": Ofcom questions whether "competition between retailers of premium content" may be distorted "where premium content is monopolised at the wholesale level by a vertically integrated wholesaler/retailer, given the incentive that such a wholesaler may have to favour its own retail business" (¶1.42). A substantial part of the Consultation Document is thus about whether vertical integration between different levels of the pay TV supply chain creates the incentive and the ability to foreclose competitors.[3]

3. While the Document is making some effort to cast the issues in more general terms, it is clear that the focus is mostly on Sky, and on the implications of integration between Sky's retailing, broadcasting and platform activities. At this stage the analysis is still ostensibly "open ended" – a number of "possible" issues are identified on which Ofcom is eliciting views, but no firm conclusions are being put forward. However, an effort to describe the potential issues in general terms should not come at the expense of precision. Even at this consultation stage, Ofcom should be more explicit in its working hypotheses, tighter in its economic reasoning, and more selective in the concerns it appears to be putting forward.

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1 *Sky's "Incentives" to Foreclose Competition in the UK Pay TV Industry A response to the complaint by BT et al.*¸ CRA and Prof. John Van Reenen, 29 October 2007.

2 Ofcom*, Pay TV market investigation: Consultation Document*, 18 December 2007.

3 The other "specific area of concern" identified by Ofcom, the "horizontal relationship between the retailing of premium content and the retailing of basic content", i.e. the practice of "buy-through", is not addressed in this document but discussed instead in Sky's own submission.

Potential issues outlined by Ofcom

4. Ofcom identifies “access to premium content” as a potentially problematic area, both in terms of “short-run” and “long-run” operation of the market.

5. In the *short run* (the period where “established firms compete with each other”), the issue is whether wholesale channel providers have the incentive to licence their content only to one retailer on each platform – a pattern which is said to fit with the observation that multi-retailer competition tends not to occur on the same platform; and whether this may be as a result of vertical integration (of the wholesale channel provider with retailing, and with platform operations). Sky is explicitly mentioned as an illustration of the concern.[1]

6. Ofcom further considers the possibility that, also in the short term, a vertically integrated channel provider/retailer may have the incentive and ability to supply a reduced amount or quality of content to third party retailers, even where it does make its premium content available to established competitors, and again whether this effect is magnified by vertical integration between the channel provider/retailer, and platform operation. Again, this is said to be consistent with market observations, and reference is made to Sky.

7. Access to premium content is also identified as a potential issue in the *long run,* as it may be used by existing operators to foreclose future market entry and expansion by “exploit[ing] certain dynamic characteristics of the market” (¶1.55).

8. Ofcom also asks whether there are significant barriers to entry into the upstream market for the provision of wholesale channels, which may be “intrinsic to content markets at the wholesale level”, such as first-mover advantages, and whether the presence of a vertically integrated incumbent may “exacerbate” these barriers. Ofcom further asks whether vertically integrated operators may have the incentive and ability to foreclose potential new retailers and/or the development of new platforms by denying them access to premium content. Again Sky is mentioned as a case in point.

Ofcom’s concerns are not justified

9. We explain in this document that, in what Ofcom describes as “the short term”, a vertically integrated incumbent is in fact likely to have an incentive to supply premium channels to established retail competitors (and indeed this is acknowledged by Ofcom). Further, to the extent that an integrated incumbent may be unwilling to supply its channels to competing retailers on platforms where it is already present,

this is not because of vertical integration, nor does it depend on the existence of strong market power upstream or downstream. A wholesale channel supplier, *vertically integrated or not,* may well tend to license premium content exclusively, especially when downstream competition would otherwise be fierce (e.g. because of less horizontal differentiation or low switching costs), in which case the benefit of exclusivity can be larger than the cost of not serving differentiated or "locked-in" consumers.

10. We also explain that arguments over refusal to supply, and supplying but at a lower quality, are analytically the same, and it is not clear why the Consultation Document goes to such an effort to draw a distinction. The analysis of refusal to supply extends also to worsening the quality of the product supplied, and Ofcom's Document does not explain why the conclusions should be different.

11. We further explain that the incentive to foreclose a downstream competitor by refusing to license valuable content is not necessarily stronger when the competitor is a recent (or potential) entrant. In the case of downstream rivals with a small presence in the market, the cost of foreclosure is small (as current sale revenues foregone are small), but the benefits of reducing competition downstream are also small. There can therefore be no presumption that there are greater incentives to foreclose recent entrants than more established rivals in a static framework. The assessment holds also in a "forward looking" perspective, whereby the small players of today could be larger rivals tomorrow. Again the two sides of the foreclosure trade-off move hand-in-hand: the benefits of foreclosure (reducing competition downstream) may be greater if one expects the current small rivals to get bigger, but the future sales foregone by refusing to license the rival will also be larger.

12. We further explain that we see no basis for a "dynamic foreclosure" concern here. Ofcom's theory that a vertically integrated operator may (1) seek to foreclose potential new retailers and/or platforms by exploiting dynamic characteristics of the market and (2) have an incentive to create additional upstream barriers are both unfounded. "Dynamic foreclosure" is not a term that can be liberally applied to all circumstances where new competitors may be emerging, using the same or new technologies. It has a precise meaning, and very strict conditions must hold for the theory to be even *prima facie* credible. Ofcom however does not articulate such conditions, nor does it show they hold in this case. Further, we believe that the crucial components of a dynamic foreclosure theory are not present in this case.

13. Finally, while we do not explicitly address in this document barriers to entry into the wholesale supply of premium channels (these are addressed elsewhere in Sky's submission), we explain that Ofcom's concerns are in fact all about incumbency, and that any such advantages are unlikely to be magnified by vertical integration.

Ofcom's analysis of vertical integration and foreclosure contains a number of flaws

14. We start in Section 2 by considering Ofcom's discussion of *vertical integration*, which is the key common factor in all potential "concerns" about "short tem" and "long term" foreclosure outlined in the document. We have reservations about various aspects

of the analysis to date, which is in our view too simplistic, generic and imprecise; contains a number of flaws; and is too focused on *Sky's* vertical integration.

15. We believe that there are logical and economic flaws (a) in Ofcom's circular assumption that *downstream* market power arises from control over valuable content upstream (an assumption which in effect involves "double counting" of market power as between the upstream channel supplier and its downstream arm); (b) in the suggestion that incentives to foreclose *increase* with the *extent* of downstream market power; and (c) in the notion that such incentives are also stronger in relation to competitors that are only recent (or just potential) entrants. Even in a static context, while it is true that the cost of foreclosure is smaller for downstream rivals with small current market shares (since the current sale revenues foregone are necessarily small), the *benefits* from foreclosing new competition downstream are also proportionally small.

16. Further, we believe the economics of (static) *downstream* foreclosure is considerably more subtle than currently allowed for in the Consultation Document. For instance, a vertically integrated firm that can use sufficiently non-linear tariffs would never refuse to sell to an efficient downstream rival; but the same result also holds (under a broad set of assumptions) if premium content is only sold for a per-subscriber fee, because the upstream firm can use the fee to soften the harshness of competition downstream. Thus thinking of foreclosure as involving a simple trade-off between upstream revenue lost (as a result of not selling, or selling less, to rivals) and downstream gains does not tell the full story. Indeed if content is widely shared, but per-subscriber fees are high to soften competition downstream, consumers may well be worse off when all retailers receive the premium content – and indeed exclusivity would be preferable. Hence Ofcom should not assume that market configurations in which every retailer gets access to every premium programme are necessarily more desirable.

17. As to *upstream* foreclosure, the interaction between vertical integration, asymmetries at the retail level and incentives to bid for content is also complex – and vertical integration does not necessarily increase the incentive to bid for content. Even allowing for an exogenous "retail advantage" for the vertically integrated firm, the incentives to bid for content of a non integrated downstream retailer (or an independent upstream firm) need not be smaller. Moreover, it seems to us that any potential advantage (e.g. experience-based informational advantages) would arise mostly from *incumbency,* and we see no reason why such advantage would be magnified when the incumbent is vertically integrated. Taken together with Sky's access obligations, it thus seems to us that traditional static upstream foreclosure arguments are of little relevance in the present case.

18. Finally, we are also concerned that the analysis of the role of vertical integration is mostly conducted in terms of *Sky's* alleged incentives and behaviour. Other types of integration, e.g. between television, telephony and internet services, are not even

mentioned in the Document. This is especially surprising in view of the emphasis given to the "installed base" and "incumbency" advantages that Sky might enjoy: in terms of installed base, size and incumbency, companies like BT (in relation to fixed line telephony and broadband internet access) are giants of the (ever broadening) field. This is not simply a "fairness" point: a proper economic analysis of the effectiveness of competition in the industry requires the regulator not to focus only on certain parts of the industry, and thereby ignore (similar) issues arising in other parts.

Ofcom's "short term concerns" about access to content are misplaced

19. Ofcom is firstly concerned about "limited intra-platform competition", in that pay TV channels tend not to be licensed to multiple retailers on the same platform, and questions whether this may not reflect the incentives (and ability) of vertically integrated firms to tie up content through exclusive contracts, in order to strengthen their positions at the retail level. In particular, Ofcom's potential concerns (e.g. see ¶6.77) appear to rest at this stage on three elements:

    - a generic, and generally inconclusive, textbook discussion of incentives that "may" exist for wholesale channel providers to supply content exclusively to some retailer(s), and where they are integrated, for refusing to supply or reducing the amount or quality of premium channels supplied mainly to "new" rival retailers;

    - a simple "vertical arithmetic" calculation not dissimilar to the one that was contained in our earlier report; and

    - the "observation" that premium content is not typically licensed to more than one competitor operating on the same platform (or using the same distribution technology).

20. But as in many other parts of the Consultation Document, a description of what "might" hypothetically happen is of course only that, and it does not in any way justify a presumption of likelihood without further, fact-specific evidence – which cannot be found in a hypothetical example such as the one contained in the Consultation Document.

21. Moreover, we explain in Section 3 that Ofcom would be wrong in adopting licensing to multiple retailers on the same platform as the "competitive" benchmark in the absence of vertical integration, and in drawing strong inferences from the observation that premium content is not typically widely licensed on the same platform. Multi-retailer licensing might well not be in the interest of content providers (because if competition between retailers on the same platform becomes fierce, it would reduce the overall rents that can be obtained from holding the rights to premium content, and this in turn would reduce the rents of the content creators); and, in addition, it might not be in the interest of the retailers (because it makes sense for retailers competing on the same platform to significantly differentiate their strategies – particularly if there are low switching costs – in order to try to lessen the intensity of downstream

competition). It should therefore not be so surprising that multi-retailer licensing does not occur. Critically, this outcome is *not* linked to vertical integration (even an independent upstream firm would choose to license exclusively), and does not depend on the presence of strong market power either upstream or downstream.

22. Ofcom also identifies as a separate short-term concern Sky's ability and incentive to supply "lower-quality content" to its downstream rivals. It is unclear to us why this is analysed as a distinct concern from refusing to supply content, as the analytical framework is the same. While making brief reference to Sky, Ofcom also offers no evidence that such "quality degradation" actually occurs, nor that it matters enough to retail customers that significant numbers would switch to Sky from retail rival retailers.

23. Overall the Consultation Document it is a generic and highly hypothetical description of the possible "short term" concerns without much relevant empirical evidence. It is of course in the nature of a consultation document to be open, but nothing in the discussion put forward by Ofcom to date is indicative that an issue is indeed likely to exist, and the only stylised fact that Ofcom refers to (that we do not often observe multiple licensing of premium content on the same platform) has a rational explanation that does not depend on vertical integration or foreclosure.

Ofcom's "long term concerns" about "dynamic foreclosure" and "exacerbating barriers to entry" are not well founded

24. Section 4 addresses Ofcom's concerns about "dynamic foreclosure", i.e. the ability and incentive of a vertically integrated incumbent to foreclose future downstream rivals by denying them access to content. It also addresses the hypothesis that vertical integration may "exacerbate" existing barriers to entry into the upstream market for the wholesale provision of premium channels.

25. Ofcom raises the possibility that "the behaviour of vertically integrated firms" might be driven by an incentive to reduce the effectiveness of *future, emerging* rivals. The reference to "dynamic foreclosure" theories (i.e. "the risk that firms already present in the market might either exploit or benefit from certain characteristics of the market to foreclose entry by new providers", ¶6.57) is a step forward relative to the Complainants' unstructured "vicious circle theory". The main mechanism through which an integrated wholesale channel producer could seek to achieve this is seen again to be restricting *access to premium content*. Ofcom in particular asks whether newer or smaller channel providers are at a significant disadvantage when bidding for content, and whether vertical integration by some market participants does play a part in exacerbating the barriers to entry.

26. However, as explained in Section 4, Ofcom's preliminary analysis does not amount to anything like a coherent and credible dynamic leveraging story. And even if one were to attempt to do so, it is most unlikely that dynamic leveraging effects could be significant in the pay TV industry.

27. The Consultation Document does not outline any systematic theory beyond some vague statements about the dangers of Sky killing off a promising emerging platform. But the conditions for dynamic leveraging stories to be even *prima facie* credible are known to be very strict. A critical requirement is the existence of a robust inter-temporal mechanism that links a reduction in rivals' share (and profits) today to competitive conditions in the next period. As economic analysis shows, there are very few mechanisms that credibly create such a link. It is not enough just to show that a certain practice (reducing rivals' quality, or bundling) has the potential for shifting demand away from rival(s) – what must be shown is also the precise mechanism through which the shift in share will lead to the incumbent facing less intense competition in the future.

28. A strong mechanism has been shown to exist in certain software markets, in the form of the well known "application network effects": the investment incentives of applications developers will lead to much greater availability and diversity of applications for the operating system (OS) with the largest market share; and in turn, users have an incentive to choose the OS that provides the greatest variety in applications. This creates a self-reinforcing network effect, whereby more buyers will go to the OS with many applications, the system will gain higher market share, and application developers will have an even greater preference for writing applications for that system. This problem has become universally known also as the "applications barrier to entry", and is seen as the leading reason why markets such as those for OS are prone to "tip" towards monopoly.

29. It is however difficult to find other examples of industries with robust links between periods in terms of investment incentives. Indeed we see nothing in pay TV like the well-established features of the software market that are known to drive these effects. In particular:

- There is nothing like a super-dominant player with a near-monopoly grip on a critical market, supplying a product for which there are in effect no alternatives (Microsoft's Windows OS is installed in virtually all PCs);

- There is nothing in pay TV that resembles the threat to the super-dominant firm's main market, in the form of rivals potentially developing alternative future "platforms" that could replace it – retailers and delivery systems can co-exist, as shown by the experience of other markets;

- There is nothing in pay TV like the circumstances that give rise to OS-specific application network effects: unlike the porting of software applications, content can be transported across platforms without major difficulties and costs;

- There is no network effect that we can see that is likely to cause the pay TV market to "tip" towards one particular retailer. Although Ofcom does mention "bundling efficiencies at the retail level" leading to "a tendency for a single dominant retailer to emerge on each platform", we are not aware of any credible theory of market tipping based around bundling efficiency, and Ofcom does not put one forward.

30. Ofcom also appears to set significant store by Sky's "installed base" of customers, as well as its control over a library of content, and appears to believe these are likely key factors in preventing rivals from bidding successfully for access to content. We already discussed in our previous report how these were features of *incumbency*, and not in any event a function of Sky's vertical integration. We return to this briefly, and explain why Ofcom would be wrong in attaching much significance both to Sky's customer base, and to the scope of the rights it holds, when considering the credibility of dynamic (long term) foreclosure theories.

31. There is also no evidence mentioned in the Document that bears on the question of how "secure" Sky's retail base of customers really is. Switching costs are mentioned at various points, but no evidence is provided as to their size and their effectiveness in "locking in" Sky's customers. Moreover, as made clear, for instance, in the literature on compatibility, network externalities and switching costs, installed bases can only confer a competitive advantage *if they cannot be accessed by rivals.* But access to Sky's satellite platform is regulated by Ofcom and this regulation has been reviewed quite recently, so access to retail customers on the satellite platform cannot be a factor. In addition, customers are mobile across retailers, especially on the same platform. And the importance of an *existing* base of retail customers is diminished by the possibility of selling content to third-party pay TV retailers: anyone acquiring exclusive rights to premium content and packaging it into channels would likely find it optimal to make these channels available to most downstream retailers. And because the opportunity of selling to third party retailers is anticipated at the time of bidding, it will tend to reduce differences in the bidding incentives of channel providers with large and small retail bases.

32. We also cannot see how an "installed base of content" can be part of a plausible foreclosure story. Ofcom appears to have in mind the possibility that an operator already holding valuable content may be capable of bidding more for further content, because it could extract more value from the total package. But the key issue here is whether a channel provider/broadcaster without established content could still put together a *viable* channel, i.e. one that would attract enough subscribers *given the relative prices* it charges and the price charged by the rival who has currently access to more and/or better content. A smaller operator with lower programming costs could well survive even though it (optimally) charges a significantly lower price than its better-endowed rival. It could then progressively increase the quantity/quality of its content as new rights become available (and increase its retail prices as the quality of its content improves). While Ofcom appears to believe that such an approach is not feasible (¶6.65), we do not believe this to be the case in the light of

firms' incentives to try to differentiate their offerings. Entry into most significant industries is never cheap or instantaneous, and pay TV is not special in this respect.

33. Overall we believe that the crucial components of a possible dynamic foreclosure theory are not present in this case. In addition Ofcom has not even outlined the relevant conditions that must hold for such a theory to apply – less still shown that the conditions are met or may be met in the industry under consideration. Indeed the proposed dynamic foreclosure story that appears to be of interest to Ofcom is purely about incumbency and does not rely on the vertical integration of the incumbent(s). We therefore believe also the long run concern identified in the Consultation Document to be misplaced.

1. INTRODUCTION AND OVERVIEW

34. In an earlier report prepared for BSkyB ("Sky"),[4] we addressed the complaint submitted to Ofcom by a number of competitors (BT, Virgin Media, Setanta and Top Up TV, or "the Complainants"), alleging that Sky has "incentives" to foreclose competition in the UK pay TV industry, and calling for a reference of the entire industry to the Competition Commission. We explained how the Complainants' case suffered from a number of logical and economic flaws, as a result of which their main conceptual construct (the "vicious circle") lacked serious foundation. A collection of evocative terms cannot of course replace the lack of any coherent theory of harm.

35. Ofcom's Consultation Document[5] represents a material step forward in the debate, as it seeks to place the potential issues in a more coherent and systematic economic framework. Aside from a description of the industry and a discussion of market definition, the major focus of the document is on probing how the vertical relationships between different levels of the pay TV supply chain (e.g. in Sky's case the integration between the retail and the broadcasting function) may affect market behaviour, and create the incentive and the ability to distort competition. The Consultation Document further considers certain features of the industry, such as aggregation of content into bundles, and buy-through requirements for premium packages. It considers whether – when combined with these features – vertical integration may create incentives for market foreclosure, either at the downstream or the upstream level.

36. As is appropriate for a consultation document, the analysis is ostensibly "open ended" – a number of "possible" issues are identified on which Ofcom is seeking views from all market participants, and no firm conclusions are reached at this stage. At the same time, we believe that an effort at casting the issues in general terms should not come at the expense of precision. In several cases, Ofcom points to the "possibility" of certain concerns arising as a result of vertical integration, content aggregation, buy-through, or switching costs. However even at this stage the arguments are often generic and vague. It should not be enough for there to be only a theoretical possibility that something might happen for it to be flagged as a "concern". Even at the consultation stage, we feel Ofcom should be more explicit in its working hypotheses, tighter in its economic reasoning, and more selective in the concerns it puts forward (having developed a proper framework of analysis, gathered evidence and applied its framework to the relevant facts).

4 *Sky's "Incentives" to Foreclose Competition in the UK Pay TV Industry A response to the complaint by BT et al.*¸ CRA and Prof. John Van Reenen, October 2007.

5 Ofcom*, Pay TV market investigation: Consultation Document*, 18 December 2007.

37. We have been asked by Sky to review specifically Ofcom's position on the likely consequences of vertical integration, and on the potential "short term" and "long term" issues that might arise when this is combined with certain features of the industry. This document evaluates Ofcom's preliminary arguments, cross referencing, where appropriate, the analysis developed in our earlier report.

38. We start by addressing vertical integration, as this is the critical ingredient in all of the possible "concerns" expressed by Ofcom in the final part of the document about the operation of the industry. We believe that Ofcom's description of the possible effects of vertical integration is too simplistic (even though it is a step forward relative to the Complainants' case), and too focused on *Sky's* vertical integration. In our view, a more careful analysis will suggest that the effects of vertical integration are likely to be a lot less material than Ofcom appears at this stage to believe. Taking also into account the existing regulatory framework, we believe that Sky's vertical integration should not form the basis for significant concerns.

39. We then move on to considering Ofcom's main *short term issue.* This arises from the observation that intra-platform competition is limited in pay TV, as premium channels (and indeed all pay TV channels) tend not to be licensed to multiple retailers on the same platform. Ofcom questions whether this may not reflect the incentives (and ability) of vertically integrated firms to tie up content through exclusive contracts, in order to strengthen their positions at the retail level. Ofcom also questions whether this incentive may be strengthened by (downstream) switching costs. We explain that Ofcom would be wrong in adopting licensing to multiple retailers as the "competitive" benchmark in the absence of vertical integration. On the contrary, licensing of identical content to retailers operating on the same platform should be regarded as unlikely to occur, whether or not there is vertical integration between the channel production and retailing stages.

40. Ofcom's main *long-run issue* is identified as access to premium content – in particular the concern that newer or smaller broadcasters may be at a significant disadvantage when bidding for content, and that the vertical integration of some market participants makes it more likely that non-vertically integrated broadcasters would be denied access to premium content (or they would, at the very least, find access difficult). We show that the potential disadvantages of smaller or newer operators are greatly exaggerated, and that any potential asymmetry results from incumbency advantages which are unlikely to be systematically exacerbated by vertical integration.

41. This document is structured as follows. In Section 2 we discuss the approach to vertical integration and foreclosure. Section 3 deals with one of the "short term"

concerns identified by Ofcom[6]: whether a wholesale channel provider may have incentives to licence premium content exclusively to a downstream retailer, and in particular whether a vertically integrated operator may want to reduce the quantity and quality of the premium content it makes available to rival retailers. Section 4 deals with the potential "longer term" concern.

2. VERTICAL INTEGRATION AND INCENTIVES TO FORECLOSE

42. Following a preliminary analysis of market definition and market power,[7] and a description of certain "key characteristics" of the industry (content aggregation and the practice of buy-through) that Ofcom considers are "intrinsic to the way in which broadcast content is produced, aggregated and distributed" (¶5.120), the final part of Section 5 of the Consultation Document aims to "discuss the role of vertical integration" (¶5.1).

43. The discussion of vertical integration contained in Section 5 is brief and perfunctory. It starts by mentioning that vertical integration is a "common characteristic" at different stages of the vertical chain in broadcasting markets; it then explains why vertical integration "may enable firms to generate efficiencies" (¶5.124), but at the same time it "may also change the incentive" of firms in the industry to behave in ways that favour its own operations – as a result excluding or weakening rivals (¶5.125). It then concludes by acknowledging that vertical foreclosure "is not necessarily profitable for a vertically integrated firm" (¶5.128), and whether this is so in the present case all depends on "the particular circumstances of the pay TV industry" (*ibid.*).

44. But beyond this brief, uncontroversial introduction, vertical integration is the *leitmotif* that runs through Ofcom's entire analysis of potential concerns about the operation of the industry (Section 6). As mentioned above, a number of market characteristics that are recognised as "intrinsic" to the operation of the industry acquire special significance in Ofcom's analysis because they are combined with vertical integration (as well as "the presence of market power" in the supply of TV channels which carry certain premium content). We therefore start our review with a close look at whether the Consultation Document appropriately deals with the likely role of vertical integration in the different relevant markets.

6 As mentioned, we do not discuss here content aggregation and its effects as this is discussed separately by Sky.

7 We do not address this preliminary analysis here, as it is dealt with elsewhere in Sky's response.

45. On the positive side, we believe Ofcom's document makes a reasonable (and welcome) attempt to adopt a rigorous analytical framework, and goes well beyond the crude approach put forward by the main Complainants:

- First, we consider that Ofcom is right to seek to distinguish clearly between "static effects" of vertical integration, and possible "dynamic effects" – in stark contrast with the impressionistic "vicious circle" argument advanced by the Complainants. Already in its introductory remarks, Ofcom seeks to draw a distinction "between the shorter term and longer term impacts of a particular course of action (the latter being sometimes referred to as "dynamic incentives")" (¶5.126).

- Secondly, we note that Ofcom has been much more careful than the Complainants in distinguishing between issues that can be linked to the vertical integration of certain industry players, and issues that arise because established companies may have some incumbency advantages (see for instance ¶6.12 and ¶6.13).

- Thirdly, we believe Ofcom's choice of a "traditional" approach to the analysis of foreclosure (a framework where it is possible to put in place legally enforceable contracts with exclusivity clauses between upstream and downstream operators) is the most appropriate given the circumstances of the industry, where such contracts can be (and are) agreed between channel providers and pay TV retailers. This is preferable to an alternative approach where it is difficult to use such contracts and therefore operators have to integrate vertically to achieve the same outcomes (as in Rey and Tirole, 2006 [8]).

46. Having said this, we have reservations on various aspects of the analysis of the role of vertical integration, which in places is too vague and occasionally in our view incorrect. We believe that once Ofcom's analysis is taken further, the picture that will emerge is one where the impact of vertical integration on the effectiveness of competition in the industry is likely to be very limited indeed. Our main concerns, developed further below, are as follows:

- The analysis of potential downstream foreclosure is still too general, and imprecise. In particular:

    - As currently presented, the discussion involves significant "double counting" of market power.

8 Rey, P. and J. Tirole, "A Primer on Foreclosure", *Handbook of Industrial Organization*, 2006, http://idei.fr/doc/by/tirole/primer.pdf.

- The consequences of any market power that might be found at the retail level appear to be misunderstood. While it is well-known that a vertically integrated firm has no incentive to foreclose if there is perfect competition downstream, it does not follow that incentives to foreclose *increase* with the *extent* of downstream market power.

- It is also not the case that the incentive to foreclose might be significantly stronger in relation to competitors that are only recent (or just potential) entrants.

- The economics of (static) downstream foreclosure is considerably more subtle than what is at present outlined in Ofcom's Consultation Document. While incentives to foreclose do depend on the trade-off between lost revenues and potential gains from reduced competition, refusing to supply content is only one possible way (and a rather coarse one) to limit the effect of competition downstream. Because of this, foreclosure tends to be much less attractive to a vertically integrated firm than is often postulated in an abstract sense.

- The interaction between vertical integration, asymmetries at the retail level and incentives to bid for content is complex. In fact, as shown in Harbord and Ottaviani (2001)[9], even when combined with a significant retail advantage, vertical integration does not necessarily increase a firm's incentive to bid for content.

- As explained in our previous report, under the current regulatory framework Sky has very little *ability* or *incentive* to use its presence downstream to hamper third parties' bidding for content. Traditional static upstream foreclosure arguments are therefore of little relevance for the industry under review.

- While we agree that incumbents might have some informational advantages when bidding for premium content, the link between such potential advantages and vertical integration is far from clear.

- As static foreclosure arguments hold little force, any conclusion that vertical integration seriously hampers effective competition in the industry would have to rely on convincing dynamic arguments. However, in the current document Ofcom does not articulate any such theory in a coherent and systematic manner. For completeness, we nonetheless also address a possible dynamic "story" that

9 Harbord D. and Ottaviani, M., *"Contracts and Competition in the Pay-TV Market",* Working Paper, London Business School, July 2001.

Ofcom appears to be tentatively referring to at various points in the document.[10] To avoid repetition, possible dynamic stories are dealt with in the section on "longer term" concerns below.

2.1. "DOUBLE COUNTING" OF MARKET POWER

47. The presence of market power at different levels of the industry is addressed separately by Sky[11], and we do not return to those arguments here. But as the existence of (significant) market power is a pre-requisite for any foreclosure theory, the analysis of market power, and particularly of the sources of market power, is also relevant to the question examined here. In order to be able to argue that a vertically integrated retailer/broadcaster would do better by adopting a downstream foreclosure strategy, Ofcom would need to examine carefully the traditional "one monopoly profit" critique, and explain why it does not apply. Yet the Consultation Document never considers this question, and moreover it falls into logical contradictions by often appearing to count monopoly power/ profits *twice*.[12]

48. This can be seen most clearly in Ofcom's discussion of market power at the retail level. In the traditional analysis of foreclosure, downstream foreclosure occurs when a vertically integrated firm with significant market power in the *upstream* market uses that market power to favour its own downstream subsidiary in order to weaken or eliminate downstream competition. When evaluating the vertically integrated firm's incentives to foreclose, of course the structure of the downstream market also matters – in particular, the degree of concentration downstream and the market power enjoyed by downstream firms (including the vertically integrated firm's subsidiary). But what matters is the structure of the downstream market *at the time when the vertically integrated firm decides which downstream firms to supply, and on what terms*. This means that the market power of downstream firms, including the vertically integrated firm's subsidiary, must be assessed *ex ante,* i.e. *before* the upstream firm's input has been allocated[13].

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10 See in particular the discussion in ¶6.62 to ¶6.73.

11 See Annex [X] (Market definition and Market power).

12 The OFT explicitly recognised this in its decision on Sky's acquisition of Easynet: "Third parties initially assumed that Sky would be motivated to foreclose premium content by the extra revenue that could result. However, Sky's incentives are not changed by the merger as there is only one monopoly profit to be made from its position in premium channels and the incentive for it to maximise revenue is not enhanced through acquiring Easynet. Pre-merger, Sky extracted a monopoly profit from its premium channels through a strategy of widespread distribution. DSL will increase those to whom it can sell premium channels. The monopoly profit would not increase if Sky chose to limit distribution." ¶20, OFT, *"Anticipated acquisition by BSkyB Broadband Services Limited of Easynet group plc",* 30/12/2005, at http://www.oft.gov.uk/shared_oft/mergers_ea02/2005/bskyb.pdf.

13 To see this, consider the case of perfect competition downstream, where we know that there is no profit incentive to foreclose. By definition, no downstream firm has any market power *ex ante.* Of course if we

49. Ofcom does not follow this standard, logical approach, as it deems Sky to have significant market power in the retail of sports channels precisely *because it has better sports content*.[14] But this is a basic error, as it amounts essentially to using the *same* source of market power to justify claims of market power *both* upstream and downstream – while in a proper analysis of foreclosure incentives, market power at the retail level must be gauged before the premium content that is the basis for market power upstream is "allocated" downstream.

2.2. INCENTIVES TO FORECLOSE DO NOT INCREASE WITH THE EXTENT OF DOWNSTREAM MARKET POWER

50. Ofcom's Consultation Document often appears to assume that foreclosure is more likely if the downstream (retail) markets are less competitive – i.e., that greater market power downstream makes things worse.[15] This is, however, another "fallacy" that should not contaminate Ofcom's further thinking on this issue.

51. It is, of course, true that, if the downstream market is perfectly competitive, the upstream arm of an integrated monopolist could achieve as good an outcome by selling to all downstream firms, as if it only supplied its own downstream arm. This is because by charging the appropriate per-unit fee to all retailers, the monopoly price is achieved downstream and the vertically integrated firm makes as much profits as if it chose to exclude all competitors from the downstream market. In this sense at least *some* market power is needed downstream in order to argue that the vertically integrated firm would have any incentives to foreclose. But this does not imply that incentives to foreclose increase monotonically as the downstream market becomes less competitive. This is obvious from the other polar case where each downstream firm has its own monopoly market: clearly the upstream firm – vertically integrated or not – would want to serve every downstream firm. While this latter case may appear extreme, it has relevance for situations where a source of market power downstream may be, for instance, switching costs. The higher the switching costs, the greater the loss of revenues from not serving a downstream competitor, and the lower the loss of sales due to the strengthening of a downstream rival.[16]

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assume that one of the downstream firms has access to the premium channels on an exclusive basis, then we will conclude that this particular firm has market power; however this would be irrelevant to the examination of foreclosure incentives.

14 See, for instance, discussion in Section 4.1(A) in Annex 13 (Market definition and market power in pay TV).

15 See, for instance, ¶5.129 in the Consultation Document where Ofcom states that "[h]owever, at this stage, we note that one factor that is particularly relevant to the feasibility and profitability of anti-competitive conduct is the presence of market power."

16 A similar result obtains if downstream market power arises from product differentiation: the greater the extent of product differentiation, the lesser the incentive to foreclose.

2.3. INCENTIVES TO FORECLOSE ARE NOT STRONGER WHEN THE DOWNSTREAM RIVAL IS A NEW ENTRANT

52. Ofcom also claims that the incentive to foreclose a downstream competitor by refusing to license valuable content is especially strong when this competitor is a recent or potential entrant (see for instance ¶6.70)[17]. While this is a frequently held "folk belief", again it is incorrect.

53. The reasoning goes back to the traditional trade-off faced by a vertically integrated firm that contemplates whether or not to serve a downstream rival. On the one hand, a refusal to license involves loss of revenue; on the other hand, by weakening or excluding the downstream rival the integrated firm decreases the competition faced by its downstream arm, thereby raising profits downstream. Ofcom essentially argues that, in the case of downstream rivals with small current market shares, the cost of foreclosure is small since the current sale revenues foregone are necessarily small. But the other side of the trade-off that Ofcom fails to consider is that in such circumstances, the *benefits* from reducing competition downstream would also be proportionally small. There can therefore be absolutely no presumption that foreclosure is more likely to be carried out against potential or recent entrants than against more established rivals in a static framework.

54. Does the assessment change if one takes a longer term view, and considers the possibility of the potential or recent entrant thriving and getting bigger in the future? In other words, is the concern more justified in a "forward looking" perspective, whereby the small players of today could be larger rivals tomorrow? One might argue that, in such a situation, the loss of revenues from refusing to license now would be dwarfed by the benefits from eliminating a rival for the foreseeable future. But such a logic would also be flawed: by eliminating the (small) rival today, the incumbent also foregoes the opportunity of obtaining licensing revenues from that firm in future. This opportunity cost of foreclosure must clearly be considered. Thus also in this case the two sides of the foreclosure trade-off move hand in hand: the benefits of foreclosure (reducing competition downstream) may be greater if one expects the current small rivals to get bigger, but the sales foregone by refusing to license the future larger rival will also be larger. In essence, the economic arithmetic of foreclosure must properly include all the factors.

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17 "It is important to note that the way in which these incentives play out in practice may also be different for a new entrant compared to an established retailer. This is because a vertically integrated wholesale channel provider which refuses to supply its content to a new entrant is not foregoing significant levels of revenue; i.e. the static costs of refusing to supply are low. And any short-run costs which are incurred as a result of refusing to supply content may be offset by longer term (or "dynamic") effects. These effects may arise in related markets." (¶6.70).

2.4. THE ECONOMICS OF DOWNSTREAM FORECLOSURE IS MORE SUBTLE THAN ACKNOWLEDGED BY OFCOM

55. We believe that the economics of downstream foreclosure is considerably more subtle than is acknowledged in Ofcom's document. As we mentioned in our previous paper, a vertically integrated firm that can use sufficiently non-linear tariffs would never refuse to sell to an efficient downstream rival. In fact the paper by Weeds (2007)[18] that Ofcom cites in support of possible dynamic arguments shows that, in a static context, a vertically integrated firm that can use two-part tariffs would never find it optimal to foreclose a downstream rival.

56. Harbord and Ottaviani (2001) consider a model that is very similar to Weeds', but assume that premium content can only be sold by channel providers for a per-subscriber fee, which seems to fit better with Ofcom's own assumptions (and industry practice). In their model, they also find that a vertically integrated firm would never refuse to sell the premium content to its downstream rival. However this has nothing to do with the incentive to "spread" the fixed cost of obtaining the rights over as large a base of customers as possible, since in their framework at the point where the decisions regarding sales to downstream retailers are made, the fee paid for the content is regarded as a sunk cost. In their framework the per-subscriber fee is useful to avoid harsh competition downstream (because with a per-subscriber fee, pricing by competing downstream retailers will be less aggressive). Having ensured that downstream competition is not too destructive, the upstream firm has the incentive to extract surplus from the largest possible number of customers and would not decline to licence content to other firms.

57. It is worth noting that, while any model is of course specific in some sense, there is nothing unusual about Harbord and Ottaviani's framework. They assume some market power downstream as retailers are horizontally differentiated. Premium content raises consumers' willingness to pay for the channels that carry it (in the simple sense that consumers are prepared to pay more for a service that includes premium content), and the vertically integrated firm's downstream arm is allowed to have a significant advantage (in terms of costs and/or initial content) over the other retailer(s). But even with its limitations (there are a number of modelling assumptions, and the framework is static), the paper makes two useful points. First, there is a fairly broad set of conditions under which a vertically integrated firm has no incentive to foreclose downstream rivals. Secondly, thinking of foreclosure as involving a simple trade-off between sales revenue lost and decrease in competition

18 Weeds, H., *TV Wars: Exclusive Content and Platform Competition in Television Broadcastin*g, Working Paper, University of Essex, March 31, 2007.

does not tell the full story – as the *manner* in which channel supply agreements are formulated also matters for the incentives to deny content to other distributors.

58. The model also shows that the upstream firm (vertically integrated or not) may well tend to license its premium content exclusively, especially when downstream competition is fierce (e.g. because of less horizontal differentiation or lower switching costs). In such a case, the benefit of exclusivity (in terms of softening the harshness of downstream competition) can be larger than the cost of not serving differentiated or "locked-in" consumers. What are the possible welfare effects of exclusivity at the retail level? Precisely because in their model the vertically integrated channel provider uses the per-subscriber fee to reduce the harshness of downstream competition, Harbord and Ottaviani show that consumers can actually be worse off when all retailers receive the premium content, relative to the case of exclusivity. In their benchmark model with an integrated retailer and a non-integrated one, licensing to *both* retailers increases prices by exactly the value of the premium content (and market shares are unchanged).[19] If the content were to be carried exclusively by the vertically integrated retailer instead, consumers would be better off for two reasons. First, because the integrated retailer still faces competition from the other retailer, and would therefore raise its price by less than the additional value of the content; and second, because it now competes against a stronger rival, the other retailer decreases its price. Although the setting is highly stylised, it suggests that Ofcom should not *assume* that market configurations in which every retailer gets access to every premium programme are *necessarily* more desirable.

2.5. No ability to foreclose upstream competition given regulated access to the DSat platform

59. Both the Complainants and Ofcom refer to the possibility that Sky might restrict access to the DSat platform in order to reduce the rivals' valuation of content when bidding for premium rights. But as Ofcom essentially acknowledges in the Consultation Document, access to the DSat platform is a red herring – such

19 In equilibrium, the license fees extract the full additional value of the content – call this V. Clearly, this raises the unit cost of the non-affiliated downstream firm by V but – and this is crucial – it also raises the cost of the affiliated downstream firm by V. This is because the downstream arm knows that a unit of sale taken from the rival reduces licensing revenues by V. Hence V is also the proper opportunity cost of expanding sales of the downstream rival. So, both downstream firms have the value of their product increased by V and have their marginal cost increased by V – hence nothing changes. Of course this precise result depends on the assumption that one extra unit of sale for the downstream arm displaces exactly one unit of sales from the non integrated downstream rival. This is the case in the Hotelling model considered by both Harbord-Ottaviani and Weeds. In other models, the trade-off would often be less than one to one. In such a case, the opportunity cost of the vertically integrated firm's downstream arm would be less than V, and it would gain market share downsteam.

hypothetical discrimination being precluded by the (recently reviewed) regulatory regime.

60. It is also worth noting that Sky is subject to a significant regulatory asymmetry here, as it is the only platform operator currently required to offer access to its platform to third parties. Thus, while vertically integrated broadcaster/platform operators like Virgin Media and BT have assured access to households on their platforms (and on Sky's platform), Sky needs to reach commercial agreements for carriage *after* securing content.

2.6. DOWNSTREAM ADVANTAGES DO NOT LEAD TO UPSTREAM FORECLOSURE

61. The Consultation Document also contains the suggestion that, because it has access to better information on the downstream market, the upstream arm of a vertically integrated incumbent would have an advantage in bidding for content (see for instance ¶5.124). In turn this suggests that the advantage from better information is somewhat magnified when the incumbent is vertically integrated.

62. It is not unreasonable in principle to question whether operators with extensive experience in channel retailing (including premium channels) might have *some* informational advantages over others that do not. The main source of such advantages could be information that can be gathered from the actual behaviour of subscribers.[20] There are, however, various reasons why informational advantages are in fact unlikely to lead to significant advantages in bidding for content.

63. First, as a factual matter, similar information can be obtained fairly readily through market research. Further, in practice, informational advantages are likely to relate to "historical" information that is less valuable when bidding for future rights because of changes in consumers' preferences (and the difficulty of correctly predicting the level of interest for future sports events that is also affected by the future performance of the British teams and athletes).

64. Secondly, we note that the model of Harbord and Ottaviani allows for an exogenous "retail advantage" in favour of the vertically integrated firm, and is therefore informative on the effects of such an "advantage" on the incentives to bid for content. They show that because the firm acquiring the rights has the opportunity to wholesale the channels to its downstream rivals, and because (as explained above) the per-subscriber fees make it possible to extract the full value of the premium programming, a rival downstream retailer (or, for that matter an independent

20 The reasoning is similar for potential "*learning by doing*" advantages that may be more than strictly informational in nature – e.g. on the best way to get subscribers to sign up, and not to churn.

upstream broadcaster) would have *exactly* the same incentives to bid for content as a dominant vertically-integrated operator.

65. Thirdly, any experience-based informational advantage is at most a direct, unavoidable consequence of *incumbency,* with limited bearings on the issue of vertical integration. To see this, consider first the situation where the incumbent is vertically integrated, and assume further that, because of the informational advantage, the incumbent secures exclusive rights to sought-after content – which is then packaged into channels that can be wholesaled to any number of retailers. As we have argued above (and in our first submission) the incumbent channel provider would likely find it optimal to sell these channels broadly. Still, for argument's sake let us also assume that the integrated channel provider might find it profitable to make the channels available only to its own retail arm.

66. Compare this to what might happen if the content rights were won instead by an independent channel provider. The independent channel provider is also likely to want to sell the corresponding channels rather broadly. If broad licensing takes place in any event, what is then the welfare loss associated with the fact that, due to some information advantage, the vertically integrated firm gets the rights in the first place? Note we are not arguing that there can *never* be any welfare loss. The point is that the question must be considered very carefully before asserting that incumbency-related informational advantages – likely to be small in the first place – are a major problem that is magnified by vertical integration of the incumbent.

67. What if there are indeed incentives for exclusivity? Does vertical integration make a difference then? The key point here is that, even if the content is in the hands of an independent channel provider, then the incumbent retailer could still use its incumbency-related informational advantages to successfully bid for an exclusive contract if such exclusivity is actually worth paying for. It is therefore not at all clear that vertical integration would make *any* material difference to the eventual market outcome at the retail level.

68. Finally, we note that to the extent that any "informational advantages" exist, most of them arise from investments made by the first-mover from which it is legitimate to expect a return. It would be inherently wrong to characterise as detrimental to consumers or competition the fact that one firm has been in a line of business longer than another, and has built up experience in serving consumers that it can put to good use. It is also commonly recognised that new entrants are typically expected to be able to overcome at least some of the barriers that earlier entrants (i.e. incumbents) had to jump themselves.

69. In conclusion, we believe that in examining this issue Ofcom should carefully take into account (a) whether there is any evidence that informational advantages are large; (b) that any such advantages arise in any case because of incumbency; and (c) that there is no reason to believe that vertical integration magnifies any potential negative consequences of potential informational advantages.

2.7. Sky is not the only vertically integrated player

70. We are concerned that the analysis of the role of vertical integration is mostly conducted in terms of *Sky's* alleged incentives and behaviour, with very few references to other vertically integrated retailers. In this respect, we note that a "vertically integrated retailer" should not be narrowly understood just as one that holds premium content rights as conventionally defined. It is sufficient that the retailer is also a channel producer, and it is irrelevant if it may not have been successful in bidding for content rights in the past: if vertical integration does provide any advantage, then such a retailer would have access to them. Further, we are also concerned that other types of integration, such as integration between television, telephony and internet services are not discussed. This is especially surprising in view of the emphasis given to the "installed base" and "incumbency" advantages that Sky might enjoy. In terms of installed base, size and incumbency, companies like BT (in relation to fixed line telephony and broadband internet access) are the giants of the (ever broadening) field.

71. Note that this is not simply a "fairness" point. A thorough economic analysis of the effectiveness of competition in the industry requires Ofcom not to focus selectively on certain parts of the industry while ignoring (similar) issues arising in other parts.

3. "Short term" concerns: Retail access to premium content

72. In Section 6 of the Consultation Document, Ofcom seeks to draw together various strands of its analysis and establish whether there is at least a *prima facie* case that the functioning of the industry is being impaired. As a starting point, Ofcom discusses what it sees as the pervasive tendency towards "content aggregation" (or "bundling") "at different points in the value chain" (¶6.7). It recognises that the motivation for bundling of content is essentially that it "increases the value of that content to suppliers" (¶6.2 and ¶6.8), and goes on to say that the welfare implications of such aggregation depend crucially on "whether or not the different items of content which are being aggregated are close substitutes for each other" (¶6.7). It also distinguishes between "aggregation due to coordination between suppliers (horizontal) and aggregation by purchasers (vertical)" (¶6.11).

73. The discussion of bundling and its potential effects is generic and hypothetical, and as such relatively uncontroversial but also entirely inconclusive. Ofcom outlines a number of *potential* effects on competition that *may* flow from aggregation/bundling of content at various levels of the supply chain – from the creation of market power for certain categories of premium content (with the benefit of the aggregation flowing however upstream to the rights holders), to adverse effects on competition at the retail level. As mentioned before, while we understand it is in the nature of a Consultation Document not to reach premature conclusions, we also see no reason

why at this advanced stage in the investigation Ofcom could not be more selective and less open-ended about the potential implications of aggregation – even in the context of vertical integration and with some market power. For instance, the discussion of how aggregation of content into channels can create market power does acknowledge – at least in part – that much of the market power is in the hands of the generators of content; but then it is clearly at the level of sales of rights that one should intervene, if at all – not at levels of the supply chain that are further downstream.

74. We consider first in this section what Ofcom categorises as hypotheses about the "short-run operation of the market" in particular "ongoing competition between firms present in the market" (¶6.27 to ¶6.56). We will discuss concerns about "longer-term dynamic effects, associated with new market entry" in Section 4 below.

3.1. Summary of Ofcom's "short-run" concerns about "access to premium channels"

75. The first potential short-term issue identified by Ofcom is whether "vertically integrated operators have the incentive and ability" to disadvantage downstream competitors by restricting their access to premium channels.

76. Ofcom also identifies as a distinct possible short-term concern Sky's ability and incentive to supply *lower quality* content to its downstream rivals. We are puzzled at Ofcom's effort to draw a distinction between the two, as the arguments over refusal to supply and supplying but at a lower quality are analytically the same. It is not clear to us why Ofcom goes to such an effort to distinguish them (e.g. ¶6.77). Because the analytical framework is the same, we do not analyse the concern about "lower quality" in detail below. We just note here that in order to identify this as a "concern", Ofcom should at least produce evidence that the quality "degradation" in question would not be matched by a reduction in wholesale prices, and moreover that it would matter enough to retail customers that they would switch in significant numbers to Sky from rival retailers – but no such evidence is provided.

77. The analytical framework adopted by Ofcom to analyse short-term foreclosure incentives correctly treats vertical integration as a form of exclusive dealing – a situation where a "wholesale channel provider" in effect contracts exclusively for supply of that content with a downstream retailer. Ofcom recognises that even "monopolisation of content at the wholesale level does not necessarily imply a lack of competition at the retail level" (¶6.29). The reason is "there is an incentive to licence channels to multiple retailers because it is likely to increase the number of consumers who subscribe to that content" (¶6.30). On the other hand, there may be an incentive to licence exclusively to specific retailers (and in particular, to one's downstream arm) "if retailers are able to exploit this exclusivity to strengthen their position in the retail market", *and* "there is a mechanism [for the two sides] to share

the benefits associated with retail exclusivity", which "clearly" is the case with vertical integration (but may also be there without it) (¶6.30).

78. Ofcom provides an illustrative example of the respective costs and revenues "facing a hypothetical vertically integrated supplier", based on hypothetical numbers, and goes through some comparative statics concluding that a strategy of refusing to supply premium content to a rival retailer would be profitable if the proportion of customers that would have otherwise subscribed to the rival, but switch instead to the integrated operator, is above two-thirds.

79. Ofcom notes in particular "the role of switching costs" between retailers in determining such proportion: the lower the switching costs, the more likely it is that customers would "follow" premium channels away from their current retailer if that retailer does not get access to that channel anymore. As switching costs are likely to be lower "when consumers are switching between retailers on the same platform", Ofcom postulates that "a vertically integrated wholesale channel provider would be much more likely to make its content available to alternative retailers on other platforms where it is not present than to alternative retailers on platforms on which it is present" (¶6.35).

80. Ofcom concludes that there is, in practice, some evidence that this is the case, in particular Sky making its channels available to other platforms ("especially those such as cable where it is not itself present as a retailer"), but not to other retailers on the satellite platform, nor on DTT where it is intending to launch a retail service. More generally, there are "several examples of third party channels being licensed to different retailers on different platforms, but very few examples […] to multiple retailers on the same platform" (¶6.36).

81. However, as we explain below, it would not be right for Ofcom to rely on these elements for drawing the conclusion that there are justified concerns about the functioning of the industry.

3.2. Incentives to restrict retail access to premium content

82. Ofcom postulates that the incentive of a wholesale channel provider to licence channels to multiple retailers may be offset by the benefit of exclusivity, particularly where the channel provider is vertically integrated and would therefore "share in the benefits associated with retail exclusivity" – and especially if the retailer(s) exclusively distributing the content can thus "persuade customers to switch to their service" and perhaps sell them other services on top.

83. As described, Ofcom's potential concerns rest at this stage on three elements:

- a generic, and generally inconclusive, textbook discussion of incentives that "may" exist for wholesale channel providers to supply content exclusively to some retailer(s) (or, where they are integrated, for refusing to supply new rival retailers altogether or for supplying "lower quality" content);

- a simple "vertical arithmetic" calculation not dissimilar to the one that was contained in our earlier report; and

- the "observation" that premium content is not typically licensed to more than one competitor operating on the same platform (or using the same distribution technology).

84. The first element is of interest only insofar as it explicitly recognises that vertical integration is never a sufficient condition to justify a presumption in favour of incentives to foreclose. In our view, it is too often the case that such a presumption is made automatically by competition authorities and regulators, and the onus appears to be on vertically integrated operators to prove they do not have incentives to foreclose, rather than the other way round.[21] But as in many other parts of the Consultation Document, a description of what "might" hypothetically happen is of course only that, and it does not in any way justify a presumption of likelihood without further, fact-specific evidence.

85. Such evidence cannot of course be found in a hypothetical example such as the one contained in the Consultation Document. As mentioned, our earlier report contained a simple "vertical arithmetic" calculation comparing potential costs and benefits of a withholding strategy; the analysis in Ofcom's document is in effect a simplified version of our calculations (presumably to respect the confidentiality of Sky's actual figures). Of course for *some* parameter values (namely if Sky expected a very significant proportion of subscribers to rival retailers to switch to its own retail offer) it is always possible to conclude that incentives to foreclose exist – because the

21 A similar concern was expressed, for instance, by Shapiro and Hayes in their response to the European Commission's Discussion Paper on the Application of Article 82 (available at http://ec.europa.eu/comm/competition/antitrust/art82/020.pdf). At page 6 they state "We recognize that the Discussion Paper states that these presumptions regarding exclusionary effects can be rebutted by the dominant firm. However, in cases where the conduct is ongoing and no harm to consumers is evident, this approach shifts the burden of proof onto the dominant firm too easily, without any showing that the conduct is in fact likely to cause such harm." These concerns have also been expressed by some of the current advisers to the Complainants (see for instance Gerardin, Ahlborn, De Nicolò and Padilla's response to the Commission's Discussion Paper available at http://ec.europa.eu/comm/competition/antitrust/art82/057.pdf). They state at page 31 that "The allocation of the burden of proof is likely to have a determinant role in Article 82 cases concerning dynamically competitive industries. In such industries, while the anticompetitive effects of a given practice, if any, may be easy to measure, its pro-competitive effects, while certainly important, will be difficult to measure with precision. Thus, the balancing test will be hard to make and the party with the burden of proof is likely to lose the case. Fortunately, the allocation of the burden of proof can be made by reference to objective criteria in this type of industries at least. As explained earlier, given the expected costs of a false conviction in these industries, it is preferable to allocate the burden of proof to the plaintiff."

benefits outweigh the cost. But without specific evidence on the actual likelihood of switching to the integrated operator from rival retailers in response to a specific withholding strategy, the analysis can only provide a framework for outlining the potential issue – not an indicator of whether an issue is likely to exist.

86. We also believe that the significance of switching costs is overstated. Low switching costs make it less likely that there is licensing to multiple retailers on the same platform but on the other hand, they level the playing field when it comes to bidding for content in the first place.[22]

87. It would also be entirely inappropriate to draw strong inferences from the observation that premium content is not typically licensed to more than one retailer operating on the same platform. This should not be surprising for two reasons: it might not be in the interest of the content providers and, in addition, it might not be in the interest of the retailers, and indeed of consumers[23]:

22 The reason is that if switching costs are low, there is less segmentation at the retail level and a single retailer with access to premium content could access most of the interested consumers. This decreases the incentives to license the same channels to several retailers. Similarly, with low switching costs, customers move easily to whichever retailer is offering the most attractive content. Anticipating this, companies bidding for the rights to premium content need not worry much about having access to their “own base” of customers (e.g. through vertical integration).

23 As discussed briefly later in this report, having many retailers offering similar channels is not necessarily to the advantage of customers. Customers enjoy variety and – as was recognised in the football league case (see section (iv) - paragraphs 268 to 271, Restrictive Trade Practices Court, Football Association Premier League Limited and the Football Association Limited and the Football League Limited [1999] UKCLR 258) – differentiation across retailers might serve this need for variety as well as – if not better than – a configuration where variety occurs mostly within each retailer’s offerings.

- First, if competition between retailers using the same platform becomes especially fierce, this would potentially reduce the overall rents that can be obtained from holding the rights to premium content. This in turn would reduce the rents of the content creators, with adverse effects on their incentives to invest in developing such content in the first place.[24] In that view, unless retailers operating on the same platform are significantly differentiated in other dimensions, expecting systematic within-platform licensing is unreasonable as it would likely significantly reduce the value of intellectual property rights upstream. In other words, in the absence of sufficient differentiation or switching costs at the retail level, exclusivity would likely be optimal for the upstream rights-holder, *whether or not it is vertically integrated with one of the downstream retailers.*

- Further, it is not at all clear that licensing of the same premium content to several retailers on the same platform is in the interest of these retailers. As discussed in Section 2, an upstream channel provider should essentially be able to extract the full value of the premium content through an appropriate price structure. Indeed, in the benchmark model of Harbord and Ottaviani, retailers make exactly the same profit in the equilibrium where they both get the additional channels as they would get if neither of them got the premium channels. It would therefore make sense for retailers that compete on the same platform to significantly differentiate their strategies: rather than expect all retailers to market similar channels with similar premium content, one should expect them to try to lessen the intensity of downstream competition. This could be done either by offering different premium content or by differentiating in a more "vertical" direction, with one of the retailers offering less popular content than the other.

88. In addition, Sky is not the only company that does not license its premium content to other retailers on the same platform. Setanta (with newly acquired rights to Premier League football matches) behaves in the same manner.

89. To summarise, we would anticipate that if competition downstream is fierce (and there are low switching costs which is the case for intra-platform competition), in practice multi-retailer licensing would *not* occur. However (a) this is not linked to vertical integration: under realistic conditions when contracts cannot be used to fully extract downstream surplus, an independent upstream firm would also choose to license exclusively; (b) this does not depend on the presence of strong market power (dominance) either upstream or downstream: as mentioned, Setanta has not licensed it own premium content to more than one retailer by platform either; and (c) low switching costs make it less likely that there is licensing to multiple retailers on

24 One should add that, were upstream channel suppliers to be forced into licensing to several retailers on the same platform, content creators would likely exercise the outside option of supplying the premium content themselves to extract higher rents. This is not uncommon. It happens in the United States with sports leagues and, we understand, the Scottish Premier League ("SPL") came very close to doing it. Similarly, movie studios are capable of providing their content directly to end users.

the same platform, but also level the playing field when it comes to bidding for content in the first place.

90. Overall, we believe the Consultation Document outlines *possible* short term concerns in a manner that is not unreasonable; however, it is still a generic and highly hypothetical description without much reference to relevant facts. As we have argued elsewhere, it is of course in the nature of a consultation document to be open, but nothing in the discussion put forward by Ofcom is indicative that an issue might indeed be likely to exist, and the only stylised fact that Ofcom refers to (that we do not often observe multiple licensing of premium content on the same platform) has a rational explanation that does not depend on vertical integration or foreclosure.

4. "LONGER TERM" CONCERNS ABOUT THE OPERATION OF THE INDUSTRY

91. In the final part of Section 6, Ofcom discusses the possibility that "the behaviour of vertically integrated firms" might be shaped by considerations other than an attempt to reduce the effectiveness of their *current* competitors; and might indeed be driven by an incentive to reduce the effectiveness of *future, emerging* rivals (and/or a strengthening of their current rivals). However, Ofcom does not really specify a theory beyond some vague "Microsoft-style" argument about Sky killing off promising emerging rivals. We believe the Consultation Document does not make even a *prima facie* case for concerns about dynamic leveraging. As discussed further below, Ofcom would need to properly recognise the preconditions that would be required for such a theory to apply, it would need to identify those conditions explicitly, and in particular it would need to outline the empirical evidence necessary to ensure the conditions are met.

92. If what Ofcom has in mind is indeed a dynamic foreclosure argument along the lines of that advanced in the Microsoft case, it must be aware that a number of conditions were central to that case. In particular (as discussed below) it would be critical for Ofcom to demonstrate the existence of a credible mechanism linking a particular commercial practice in one period to rivals' loss of share, and further linking this loss of share to rivals' lack of ability to invest, and therefore exit (or marginalisation) from the market. In the absence of such a clear inter-temporal mechanism, the mere fact that rivals would do *less well* than they would have liked is no evidence for an exclusionary strategy. Ofcom would also have to demonstrate that the characteristics of the market are likely to lead to "tipping" in favour of the player who gains an advantage, without real prospects for others to remain in the market.

93. However, there is no equivalent to "applications network effects", the mechanism which is at the core of the Microsoft dynamic leveraging theory. Because "porting" software applications to different systems is costly, application developers tend to write for the dominant platform, marginalising others. Here, "content" can be

transported across many platforms without difficulty. Further, no theory is specified in the document as to why and how tipping would occur, nor is there evidence of this occurring. We do not see this industry as one where the "winner takes all", and Ofcom does not explain why this should be so.

94. We also note that Ofcom appears to set significant store by Sky's "installed base" of customers, as well as its control over a library of content, and appears to believe these are key factors in preventing rivals from bidding successfully for access to content. We already discussed in our previous report how these were features of *incumbency*, and not in any event a function of Sky's vertical integration. We return to this briefly below, and explain why Ofcom would be wrong in attaching too much significance both to Sky's customer base, and to the scope of the rights it holds, when considering the credibility of dynamic foreclosure theories.

4.1. OFCOM'S "LONGER TERM CONCERNS"

95. The explicit reference by Ofcom to "dynamic foreclosure" (i.e. "the risk that firms already present in the market might either exploit or benefit from certain characteristics of the market to foreclose entry by new providers" - ¶6.57) is to some extent a step forward relative to the Complainants' unstructured "vicious circle theory". As discussed in our first report, the Complainants appeared to be trying to echo a "dynamic foreclosure" story: by talking evocatively about Sky's "vertical integration", and "upstream" and "downstream" bottlenecks, the Complainants concluded that Sky was able to pay more for content because of its larger customer base, which in turn strengthened its position at the retail level and so on. As explained in our first report, however, the story lacked a systematic framework and analytical rigour.

96. Ofcom's document strives for a more coherent approach, explicitly considering whether there may be scope for a dynamic "theory of harm" – i.e. aimed at stalling the entry and growth of smaller competitors (and in a rapidly evolving world, significant future competitors) by preventing their entry into "the wholesale channel provision market" (¶6.62 and thereafter). The main mechanism through which an integrated wholesale channel producer could seek to achieve this is by restricting *access to premium content*. Ofcom in particular raises two main questions:

- Are newer or smaller channel providers at a significant disadvantage when bidding for content?
- Does the vertical integration of channel provision and retailing of some market participants make it more likely that other retailers or platform operators would be denied access to premium channels or would, at the very least – find getting access difficult?

97. In support of potential concerns in relation to the rights acquisition markets, Ofcom notes that a new entrant at the channel supply level is likely to face "substantial

challenges" (¶6.62) in bidding for premium content rights against a vertically integrated incumbent. This is because the latter "will typically have built up a portfolio of content rights over a number of years" (¶6.63), and contract duration is likely to mean that rights "could be contestable only on a staggered basis" (¶6.63) over the next few years. Combined together, these two factors "suggest that there are likely to be important first-mover advantages" (¶6.64): a channel provider "that already has the rights to a significant range of content can potentially extract more value from the next set of rights to come available than could a new entrant […] and will therefore be able to pay more" (*ibid)*.

98. Ofcom also suggests that while some of these barriers may be "intrinsic to content markets at the wholesale level, a vertically integrated incumbent may have incentives to create additional barriers to entry" (¶6.67). It mentions specifically the "example" of Setanta and Sky, whereby "Sky may have an incentive to restrict access to the retail market by restricting access to its satellite platform" (*ibid.)* even though it acknowledges that this incentive will be restricted by regulation.

99. We address Ofcom's analysis below, and explain why we believe that it does not amount to anything like a coherent and systematic dynamic leveraging story.[25] And even if one were to attempt to do so, it appears most unlikely that dynamic leveraging effects could be strong in the relevant markets.

4.2. "Getting access" to content and "bidding successfully" for content

100. As a first organisational point, it is important to make a clear distinction between a retailer or platform operator "getting access" to premium channels and a channel provider "bidding successfully" for content. In the presence of channel provision to third party retailers, "getting access" does not require placing a winning bid for content rights. The relationship between vertical integration and "getting access" through channel supply agreements was addressed in our discussion above about the role of vertical integration and will not be revisited here. In the rest of these comments we will therefore concentrate exclusively on "bidding for content", and in particular on whether a possible disadvantage in bidding for content can be part of a possible mechanism for dynamic foreclosure.

25 As mentioned, one of the few references to the economic literature discussed by Ofcom is Weeds (2007) (¶6.70, footnote 56). Weeds' paper considers a framework where future retailing profits increase non-linearly with current retail market share, and shows that if this future profit component is large enough and sufficiently convex, then the upstream rights-holders would choose to only license to its own retail arm. We do not discuss the paper here in full, but we note that it would be very difficult to find a reasonable way to evaluate whether the "sufficient convexity" and "sufficient size" conditions are satisfied. In our view, Weeds (2007) does not provide a robust basis for concluding that wholesale channel providers that hold rights to valuable content have incentives to withhold this content from downstream competitors.

101. Before proceeding to consider dynamic-type arguments, it also is worth recalling that – as explained above – the opportunity for channel provision to third party retailers substantially decreases any notional disadvantage of smaller bidders. Informational advantages are also discussed above and we do not return to them here.

4.3. NECESSARY INGREDIENTS FOR A "DYNAMIC FORECLOSURE" STORY

102. As already explained in our previous submission, the requirements for a credible dynamic foreclosure argument are strict. Indeed the most important example of a "dynamic leveraging" theory of harm being coherently and successfully presented by an Agency is the Microsoft case – but the conditions that made the theory robust in that case were highly specific and do not apply here.

103. In this section we draw from the Microsoft case to identify the conditions that need to hold for a dynamic foreclosure theory to be at least *prima facie* plausible. Although the Microsoft case was about "adjacent" rather than vertically related markets, the analysis of the foreclosure mechanism is inherently the same as for a vertically related market. There is a direct analogy between exclusive dealing in a vertical chain, and bundling between complements; similarly, interoperability degradation can be interpreted as analogous to an exclusive dealing arrangement in which certain functionalities on the PC client operating system ("OS") are only made available under exclusivity conditions to the dominant firm's server OS, and not to competing OS. The requirements for a dynamic foreclosure story to be credible are therefore essentially the same.

4.3.1. Incentives for dynamic foreclosure in the "server" part of the Microsoft case

104. In the "*server"* part of its case against Microsoft, the European Commission concluded that Microsoft was using its effective monopoly in the market for desktop (PC) OS to leverage power into the adjacent market for server OS.[26] Such leverage was achieved by introducing artificial limitations to interoperability between desktops running on Microsoft's dominant OS and servers. In particular, Microsoft was found to have made versions of its PC OS (Windows) increasingly harder to access by non-Microsoft servers through a practice of embedding undisclosed links that could not be used by other server vendors to deploy their own comparable functionalities when interoperating with a Windows PC OS (several examples of this were

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26 Servers are computers whose function is to link up 'clients' in a network, allowing resources to be shared among multiple users and supporting the delivery of applications. At the simplest level, servers perform basic infrastructure services such as allowing clients to share printers and files, or handling the authorisation and authentication of users. For a computer network to perform efficiently, clients and servers in the network need to communicate and interoperate as seamlessly as possible.

documented by the Commission in the case). This directly reduced the competitiveness of rival server OS, by limiting their relative quality.

105. Microsoft was found to have both the *ability* and the *incentive* to limit interoperability between its Windows PC OS and rivals' server OS. The *ability* arose from Microsoft's formidable position in the PC OS market, where it held over 90% of the installed base. This near-monopoly was reinforced by network effects arising from the well-established "applications barrier to entry": a structural barrier stemming from the fact that customers want OS for which a large number of applications have been written (and are likely to be written), and at the same time application developers want to write applications for OS that already have a large customer base. There were therefore strong network effects arising from third party developers writing mainly to Microsoft's interfaces, further strengthened by Microsoft's dominance in PPAs ("personal productivity applications", the "must have" software applications for all businesses: word processing (Word), spreadsheets (Excel), presentation software (PowerPoint) and e-mail (Outlook)). The difficulty of "porting" applications between OS cemented Microsoft's near-monopoly.[27]

106. As to *incentives,* limiting interoperability benefited Microsoft in the short run because it directly reduced the quality of a rival server OS relative to an "all-Microsoft environment", and thus shifted market share (and profits) to Microsoft's own server OS (in much the same way as an increase in rivals' relative cost would do). As mentioned, a key ingredient for this effect was Microsoft's "near monopoly" in PC OS and applications software, which meant that in practice there was no real alternative for users to a Windows PC OS and applications.

27 What is distinctly different in the software industry is the existence of types of software that provide "hooks" between application software and the operating system. These are programmes (including the operating system itself) that expose the application programming interfaces (APIs) to which the developers of applications can write their software. In today's world APIs are not always standardised, and instead are frequently proprietary. This means that, in many circumstances, a software company must either write several versions of its applications, or write its applications for one specific set of proprietary APIs. The first strategy is widely considered to be prohibitively costly. Given this, it is, ceteris paribus, most profitable to write for the system that is most widely distributed.

As a result, investment incentives of applications developers will lead to much greater availability and diversity of applications for the operating systems with the largest market shares. In turn, users will have an incentive to choose the operating system that provides the greatest variety in applications. This creates a self-reinforcing network effect. More buyers will go to an operating system with many applications and given that such an operating system will have higher market share, applications developers will have an even greater preference for writing applications for that operating system. This problem has become universally known as the "applications network effect", or the "applications barrier to entry" into markets for operating systems and is seen as the leading reason why markets for operating systems are thought to be likely to "tip" towards monopoly.

107. Crucially, what made the short-term foreclosure incentive very plausible was the fact that, unlike most strategies of raising rivals' costs, the costs to Microsoft of implementing a degradation of rivals' relative quality were small relative to the greater profits generated from increased market power. While raising rivals' costs sometimes involves expensive investments, degrading the interoperability of non-Microsoft server OS only involved the refusal to disclose information on new functionalities, or some small changes in the existing ones. But this did not entail an explicit cost to Microsoft. Significant "implicit" costs were also highly unlikely: there would be a cost if customers reacted to interoperability limitations by not using PCs altogether. But customers are much more likely to simply select a Microsoft OS for their servers, and therefore the cost to Microsoft of denying rivals access to particular Windows functionalities was small.

108. Most relevant for our purposes is the potential for the strategy to affect competition in the *long-run*. The Commission found that in the long-run, limiting interoperability was profitable for Microsoft because this protected its main source of power – the monopoly over PC OS and key applications – and further ensured Microsoft would have a grip over future substitutes to the PC and its OS (internet-enabled devices, such as wireless devices, mobile phones and non-desktop devices such as PDAs ("personal digital assistants")). In a world where mobile phones, wireless and non-desktop devices were viewed as likely to grow rapidly as Internet-enabled devices, servers had the potential to become the new "hub", and Microsoft had an incentive to protect its entrenched position in PC OS and applications from the threat of future innovations. A successful rival server OS would not succeed in attracting application developers, currently reluctant to write software to alternative OS, and provide effective competition to Microsoft's bundle of dominant PC OS and application software.

109. In this sense, Microsoft's conduct was in keeping with its proven history of adopting "defensive leveraging" strategies, i.e. moving into an adjacent/emerging market to dominate it and to protect its existing monopoly, by thwarting the emerging technology or by seeking to dominate it (see the well known U.S. examples of Netscape and Java).[28] The "passing off" of monopoly power from one market to the next – described as "swinging from monopoly to monopoly", or "extending the monopoly real estate" – was possible because of the technical interdependence of software products, and the control of interoperability information through market power in already dominated markets.[29]

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28 See for instance the expert witness report by Frederick Warren-Boulton available at http://www.usdoj.gov/atr/cases/f2000/2079.htm.

29 Microsoft's defence of its desktop monopoly historically involved attacking products that are seen as "alternative applications platforms" (AAPs) potentially posing a threat to Windows. The first such AAP targets were middleware – web browsers and Java, and Microsoft's effort to suppress competition in these has been well documented.

110. Microsoft's incentive was shown to hold in formal models, the key to which was the applications barrier to entry – an explicit mechanism specific to software markets, that provides a link between rivals' profit reductions in the short term to a long-run reduction in their competitiveness. For instance, Kühn (2001)[30] formally shows that by shifting market share in server OS to itself in the first period, Microsoft could induce developers to switch their investment to applications for its own server OS: this increases the probability of Microsoft winning out in the next generation competition, and the price Microsoft can obtain for its server OS in the future, since there are limits to the extent to which those benefits can be competed away in the first period competition. The ability to extract profits from the second period thus essentially depends on sales success in the first period, and therefore interoperability degradation becomes a profitable strategy in a dynamic context.

111. Kühn's formal economic model is close in spirit to that of Cremer, Rey and Tirole (2000)[31], inspired by the WorldCom/MCI case. Their model also showed how because of network effects, the dominant firm has an incentive to degrade its connection with its rivals. The two mechanisms are very similar – there is a close analogy between "multiple-homing" in the WorldCom/MCI case and "writing applications for different interfaces" in the Microsoft case.

4.3.2. Analogies with foreclosure mechanisms in bundling

112. Similar reasoning can be developed with respect to exclusion through *bundling* strategies (these were at the core of the "Media Player" part of the Commission's case against Microsoft).

30 Kühn, K-U. (2001), *The Incentives to Degrade Interoperability in the Market for Work Group Server Operating Systems: A Simple Modelling Approach*, mimeo. Kühn used a two-period model, with some customers buying servers in the first period, and some new customers in the second period. A software developer thinking of investing in developing new server-side software for the second period naturally cares about how many customers are already "committed". If the developer knows that more servers have been sold by A than by B, he will have a higher return from developing a successful application for server A, and *ceteris paribus* will have an incentive to do just that. This incentive of developers to write more applications for the more widely used OS gives a PC monopolist an incentive to favour its server OS (server A) in the first period by limiting the ability of rival server OS (server B) to interoperate with its PC OS. Limits on interoperability shift server shares in period one in favour of server A, which leads developers to shift their efforts towards writing applications for server A. As a result, when the next generation of customers comes along (i.e. server buyers in the second period), they see the differences in the relative quality also in terms of differences in application software offered. Server A thus will also win out in the next period.

31 Cremer, Jacques & Rey, Patrick & Tirole, Jean, 2000 "Connectivity in the Commercial Internet," *Journal of Industrial Economics*, vol. 48(4), pages 433-72, December.

113. A major weakness of bundling theories in providing support for concerns about market exclusion is that in most circumstances, bundling simply leads to increased competition – as single-product rivals seek to make their product more attractive (reducing prices or increasing quality). In order to establish that certain bundling practices have a significant impact on competition, it is thus necessary to show that in the specific market in question there exists some credible mechanism *linking bundling in one period to competitive conditions in the next*. One must be able to show that first, bundling shifts demand away from rival(s), and secondly, that this leads to the bundling firm facing less intense competition in the future. It is typically hard to find a credible link between bundling "today" and competition "tomorrow", and again software markets appear to provide special ground for a plausible mechanism that can generate a link from current market share to future advantage.

114. The most important paper exploring dynamic foreclosure effects in the context of bundling is Carlton and Waldman (2002),[32] which develops several models based on the idea that complements to current products may develop into (or facilitate the entry of) substitutes for those of the incumbent firm. By bundling a tying product with its own complement, and thus reducing the market presence of the rival's complement, the incumbent can prevent the emergence of serious competitive threats.

115. Again, "application network effects" are the powerful intertemporal mechanism by which leveraging strategies from one period can have permanent effects in the future. Bundling tends to reduce the proportion of consumers willing to buy the rival product, and therefore again the application software offered in future is more likely to be developed for the incumbent OS. This in turn will reduce the value of owning the rival software, reinforcing through expectations the market share effect. Indeed for software that relies on third party plug-ins there is a point at which the expectations about applications network effects can generate catastrophic effects because consumers (and applications developers) no longer believe that the software will be upgraded in the future. Hence relatively small disadvantages to rivals generated by bundling can have significant exclusionary effects.[33]

32 Carlton, D., and Waldman, M., "The Strategic Use of Tying to Preserve and Create Market Power in Evolving Industries" (2002) 33 *Rand Journal of Economics, pg. 194-220*.

33 For a fuller discussion, see Kühn, KU, Stillman, R., and Caffarra, C., *Economic Theories of Bundling and their Policy Implications in Abuse Cases: An Assessment in Light of the Microsoft Case,* European Competition Journal, March 2005. By bundling the OS with its own media player software, the operating system monopolist can generate a sunk cost effect on the consumer. The consumer will only purchase the rival software in addition to the bundled product if the price is less than the value to him of the quality differential. However, in an unbundled market, the consumer would be willing to pay the marginal cost of production plus the perceived quality differential to the rival firm. This means that the price that can be extracted by the rival is lower, and – in most models – the sales quantity is reduced.

4.3.3. The key requirements for the a dynamic foreclosure story to be even *prima facie* credible are missing in the pay TV industry

116. In most cases the link between today's actions and future ability to compete is difficult to establish (for a discussion, see for instance also Rey, Seabright and Tirole, 2001)[34]. These types of stories are typically speculative and hard to make in a credible way because it is difficult to establish in a multi-period context that the ability to compete tomorrow depends on the intensity of competition today.

117. Software markets tend to be different, because of product-specific network effects and applications barriers to entry which provide direct linkages between "today" and "tomorrow". There is also a documented "persistence of dominance" effect. Thus while in most circumstances long-run anticompetitive effects are difficult to generate, in software cases there are clear mechanisms linking the two periods, and both short-run and long-run benefits. The long-run effects explain the incentives to adopt a certain strategy even if it were costly in the short-run. Furthermore, there is virtually no cost to inducing the long-run effect.

118. But even then, not all software products can generate such effects. First, the "applications network effect" must occur *at the level of a given brand,* rather than the whole industry; that is, that the value of adopting a particular product increases with the number of other adopters of the *same brand* (otherwise the network effect could not be used by a dominant firm to exclude rivals, as all would benefit from it). In most cases, brand-specific network effects arise due to the use of proprietary standards. Secondly, it must be the case that the products in question expose or have the potential to expose a rich set of APIs to applications software developers, i.e. the software must have the potential for developing into middleware.

119. The conditions for dynamic foreclosure stories to be even *prima facie* credible are thus strict, and rarely hold. A fairly isolated example is OS-specific application network effects, which are well understood and provide robust links between periods in terms of investment incentives. However such links are absent in other industries where foreclosure effects are highly questionable. We see nothing in pay TV like the well-established features of the software market that could drive these effects. In particular:

- There is nothing like a super-dominant player with a near-monopoly grip on a critical market, supplying a product for which there are in effect no alternatives (Microsoft's Windows OS is installed in virtually all PCs);

34 Rey, P., Seabright, P. and Tirole J., "The Activities of a Monopoly Firm in Adjacent Competitive Markets: Economic Consequences and Implications for Competition Policy", IDEI Working Papers 132, Institut d'Économie Industrielle (IDEI), Toulouse, revised 2002, http://idei.fr/doc/wp/2001/activities2.pdf.

- There is nothing in pay TV that resembles the threat to the super-dominant firm's main market, in the form of rivals potentially developing alternative future "platforms" that could replace it – retailers and delivery systems can co-exist, as shown by the experience of other markets;

- There is nothing in pay TV like the OS-specific application network effects, whereby application developers have reduced incentives to use rival server OS as an alternative platform and therefore the attraction of such rival OS is greatly reduced. Unlike the porting of software applications, content can be transported across platforms without difficulty and costs;

- There is indeed no network effect that we can see that is likely to cause the pay TV market to "tip" towards one particular retailer. Although Ofcom does mention "bundling efficiencies at the retail level" leading to "a tendency for a single dominant retailer to emerge on each platform", we are not aware of any theory of market tipping based around bundling efficiency.

120. In addition, Microsoft also had a history of pursuing defensive leveraging strategies, and had been explicit about the benefits of excluding rivals by exploiting its advantages in PC OS. Microsoft itself had recognised the advantages it enjoyed in server OS through its control of the desktop, and its senior management had been explicit in how they would use this advantage to drive out actual and potential threats. Explicit statements of intent along these lines played a major role in firming up the case that Microsoft was indeed engaging in foreclosing strategies.

121. Ofcom's Consultation Document is nowhere near making even a plausible *prima facie* case. It hints at "dynamic foreclosure" stories but does not recognise anywhere that the conditions for these stories to be even *prima facie* credible are demanding. The suggestion appears to be that, by refusing to license desirable premium content to certain downstream competitors – and especially to emerging rival platforms/retailers – a vertically integrated operator such as Sky is seeking to prevent the emergence of another platform/retailer that could soon become another credible bidder for content. The strategy – as we understand it – would thus amount to weakening or excluding rivals at the downstream level in order to protect market power at the upstream level (and indirectly at the downstream level). But it is for Ofcom to demonstrate if, and how, such a "story" can be made tight by showing the conditions discussed above actually hold.

4.4. THE ROLE OF "INSTALLED BASES" OF RETAIL CUSTOMERS AND CONTENT

122. Ofcom also appears to assume that competing downstream retailers simply cannot be credible bidders for content in competition with Sky. The reason for this appears to be the greater "retail customer base" enjoyed by a large vertically integrated dominant bidder (e.g. ¶6.18), as well as Sky's existing rights over desirable content. We explain below why these features – which are in any event a function of Sky's incumbency and not of vertical integration – cannot be used as part of a credible foreclosure story.

4.4.1. Access to an installed base of customers?

123. In a strict sense, access to a greater number of (potential) retail *customers* increases the revenues that can be obtained from a given set of rights. Since some (notably sports) content is often sold for a fixed fee[35], all else equal a larger (potential) retail customer base makes it more likely that a firm could bid higher than its rivals when they compete for content. However, as has been made abundantly clear for instance by the literatures on compatibility, network externalities and switching costs, installed bases can only confer a competitive advantage *if they cannot be accessed by rivals.*[36]

124. First, as access to Sky's satellite platform is regulated by Ofcom and this regulation has been reviewed quite recently, it seems reasonable to conclude that access to retail customers on the satellite platform cannot be a factor. And if one was indeed concerned about competitors' access to downstream installed bases, then it seems one should look first at the nearly 4 million cable customers who are not directly accessible *at all* by competing retailers.

125. One might try to argue that even if access to the DSat platform is not an issue, installed bases of customers at the retail level might still matter. However we believe there are at least two reasons to think that their role is not important:

- In the first place, the importance of existing bases of retail customers is diminished by the possibility of signing channel supply agreements with third party retailers. As explained above, a channel provider who has acquired the exclusive rights to premium content and has packaged it into channels would generally find it optimal to make these channels available to the majority of downstream retailers. Since subsequent channel provision to third parties is anticipated at the time of bidding, this will tend to reduce differences in the bidding incentives of channel providers with large and small retail bases.

- Further, we believe that customers are actually quite mobile across retailers, especially for retailers operating on the same platform. When evaluating such mobility in the context of its effect on upstream bidding behaviour, the relevant question is "would retail customers switch if their current retailer lost some premium content to some rival retailer?" It is hard to believe that they would not. The German experience (see ¶3.56 in Ofcom's Consultation Document) directly

35 As discussed in our first report, the same is not true of movies content.

36 See, for Example Besen S.M. and Farrell, J., 1994, "Choosing how to compete: Strategies and tactics in standardization", *Journal of Economic Perspective*, 8:2, pp. 117 – 131; Crémer, J., P. Rey and J. Tirole, 2000, "Connectivity in the Commercial Internet", *Journal of Industrial Economics*, 48:4, pp. 433-472.

suggests that even non-commercial subscribers are mobile when faced with a substantial degradation in channel content.

126. And as also argued above, high levels of switching costs would in fact *increase* a channel provider's incentive to license premium content to all. This makes it hard to believe that retail switching costs would be a significant factor when bidding for content. If they are low, then consumers would switch easily, following the content, and retail bases do not matter. If they are high, then channel supply to many downstream retailers will occur anyway and the *ex ant*e bidding incentives of firms with large or small "installed bases" are broadly equalised.

4.4.2. Access to an "installed base of content"?

127. The possible role of an installed base of content is more subtle. Let us take sports channels as an example. On the surface, the argument that only a channel provider/broadcaster that already has access to significant sports content can extract the fullest value of additional rights is superficially appealing: a channel that covers a variety of good quality sports events is more attractive than a channel with only a couple of high quality items surrounded by filler content (e.g. own shows discussing the events, sports news, etc).

128. However the relevant point is not simply whether a firm with established existing content can extract more value from additional content. It is rather *whether another channel provider/broadcaster without much established content could put together a viable sports channel*, i.e. one that would attract enough subscribers *given the relative prices* it charges and the price charged by the rival who has currently access to more and/or better content. Since the smaller firm incurs lower programming costs, it is perfectly possible that it could survive even though it (optimally) charges a significantly lower price than its better-endowed rival. It could then – if it so wishes – progressively increase the quantity/quality of its content as new rights become available (and increase its retail prices as the quality of its content improves).

129. Ofcom does not appear to believe that such an approach is feasible (¶6.65). The argument rests on two claims. The first claim is that the bidding for content (for sports rights in particular) is so staggered and the (exclusive) contracts long enough that it is hard to accumulate enough significant content quickly. The second claim is that in any event, the incumbent "is able to extract more value from those rights" (¶6.65). We believe neither of these can give rise to foreclosure concerns.

Is it so hard to accumulate significant content for a new entrant?

130. The first claim (that bidding for content is often staggered and therefore it is difficult to accumulate enough content in a reasonable enough timeframe) should itself be decomposed into two elements.

131. The first element is factual, and has to do with the frequency of contract renewals across a wide variety of sports (or for the supply agreements with the film studios), and whether, given the timing of these renewals a rival could acquire a reasonable portfolio of premium rights over a relatively brief period of time. Ofcom believes the time period should be brief essentially because it considers that with long delays between rights purchases, a channel supplier would effectively be sitting on some very valuable rights for some time without getting any revenues from them.

132. We believe Ofcom's emphasis on the need to assemble a portfolio of valuable rights quickly are not justified – as for example they ignore the possibility of sub-licensing in the interim period (i.e. before some more content becomes available and can be acquired) and/or for movie rights the launch of entertainment channels including both first run pay TV film rights and library film rights.

133. The second element is what would really qualify as "enough" significant content. There seems to be some presumption in the Consultation Document that – for instance – a sport channel can only be profitable if it shows large numbers of Premier League games, cricket, British rugby, golf and ATP/WTA tennis. Apparently (see ¶5.30), the more the better. However Ofcom does not provide evidence to suggest that this relationship really holds.

134. It is also important to keep a sense of perspective. Entry into most significant industries is never cheap or instantaneous. The industry under review is not special in this respect. Entry into the steel market, for example, requires the time-consuming building of plants that will not be used immediately at capacity and the sourcing of inputs that might include costly "use or pay" minimum quantity requirements. We do not see why the (moderate) difficulties that an entrant might face in collecting sufficient initial sports rights deserve more scrutiny than similar barriers faced by potential entrants in other important markets. Nobody seems to suggest that incumbent steel makers should make their spare capacity available to potential entrants so that these can get a foothold in the market. We also note that Sky itself did not benefit from any regulatory assistance on this front when it first entered the UK TV industry.

135. There is also danger in offering excessive protection to every new entrant and/or new technology. If new platforms and/or new entrants are to be given immediate access to premium content, the result may well be the promotion of less efficient technologies. In a similar vein, heavy-handed intervention risks stifling programming creativity. If most wholesale channel suppliers get access to "crucial" content as a result of regulatory intervention, then the incentives to be creative in looking for new content, creating new proprietary content and/or combining existing content in new ways can be seriously affected.

Can the incumbent really extract "more value" from the same rights?

136. There are two aspects to Ofcom's second claim (¶6.65). The first element seems to be that, somehow, there are increasing marginal returns to obtaining more content. In other words, Ofcom seems to think that the value of 300 more hours of live football is higher for a channel provider who already has live rights to 300 hours than to a channel provider who does not currently hold such rights. To an economist this is surprising. Even if one allows for some preference for variety (i.e. I like to have a choice of games, even if the number of games that I watch does not increase), clearly consumers have decreasing marginal utility from actually watching extra games and this marginal utility must vary considerably across consumers. Decreasing marginal utility means that even fanatical sports fans should be willing to pay less for an extra 50 games if they already have access to 250 than if they only have access to 20. Hence, if rights to an extra 50 games become available, a channel provider that starts with fewer games adds more value to its channels.

137. The second element (see for instance ¶6.65) is that the incumbent has an additional incentive to bid hard "in the hope that it eventually acquires sufficient content for the upstream market to begin to "tip"". Again such a presumption needs to be taken with caution, for two reasons. First, Ofcom – or the Complainants – do not explain in any way why the upstream market would have a tendency to "tip". "Tipping" is a possible feature of markets with significant network externalities (and significant degrees of incompatibility). What would give rise to such network externalities (and the necessary incompatibility)? There is nothing that we can see in the provision of television channels that would justify in our view the expectation of tipping. And further, if the incumbent has a great incentive to reach the hypothetical tipping point, why would rivals not have an equally large incentive to make sure that such a tipping point is not reached? As is well known, whether the incumbent will generally manage to outbid a smaller opponent depends on the precise specification of the "game" being played, and size and incumbency do not uniquely determine this.[37]

138. In summary, we believe that the crucial components of a possible "dynamic foreclosure" theory – a coherent and robust mechanism to ensure an inter-temporal link between rivals' performance in the short term and their future exit (or marginalisation); a credible prospect of the industry being prone to tipping; and material evidence to support these arguments – are not present in this case. We also note that the proposed "dynamic foreclosure" story sketched by Ofcom relies entirely on incumbency and not on vertical integration of the incumbent: it is

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37 See Tirole, J., 1988, *The Theory of Industrial Organization*, MIT Press, Chapter 10; Gilbert R.J. and D. Newberry, 1982, "Preemptive Patenting and the Persistence of Monopoly", *American Economic Review*, pp. 514 – 526 and Reinganum, J., 1983, "Uncertain innovation and the Persistence of Monopoly", *American Economic Review*, pp. 741 – 748.

incumbency, not vertical integration that accounts for the alleged initial advantage in bidding for content in the upstream market. It is therefore entirely unclear how this advantage can be linked to vertical integration.