Pay TV market investigation

Consultation document

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Section 1

Summary

Introduction

1.1 On 16 January 2007, Ofcom received a preliminary submission from British Telecommunications plc, Setanta Sport Holdings Limited, Top Up TV Europe Limited and Virgin Media Limited, which asks us to investigate the pay TV industry and to consider whether to make a market reference to the Competition Commission under the Enterprise Act 2002.

1.2 The submission alleges that competition in the UK pay TV industry is not working effectively and that there are features of the industry that result in competition being prevented, restricted or distorted.

1.3 These concerns led us to announce on 20 March 2007 that we would investigate the pay TV market. The eventual aim of this investigation is to determine whether there are competition issues in pay TV which require action by us.

1.4 Ofcom received a further submission in July, and a response from Sky in October.

1.5 Under our general duty to promote competition, we have been collecting evidence and carrying out analysis to gain a preliminary understanding of the operation of the pay TV market, and the outcome for consumers. We now wish to seek stakeholders' views on this initial analysis, and on what it implies for the operation of the market.

1.6 We have not yet reached a conclusion on the existence of competition problems. We will use the responses to the consultation to determine what further steps, if any, should be taken in the investigation.

The UK pay TV market

1.7 The emergence and growth of pay TV markets in the UK and elsewhere has been driven historically by cable and satellite broadcasters, providing consumers with the option of paying for a wider choice of content than had traditionally been available from free-to-air, terrestrial broadcasters.

1.8 In the UK the main cable and satellite pay TV operators are:

- Sky, created by the merger of Sky Television and British Satellite Broadcasting in 1990. Sky now has 8.2 million retail subscribers in the UK.

- Virgin Media, created by a consolidation over 13 years of the cable franchise areas created in 1984, culminating in the merger of NTL and Telewest in 2006, and the subsequent re-branding in 2007 to Virgin Media. Virgin now has 3.4 million subscribers.

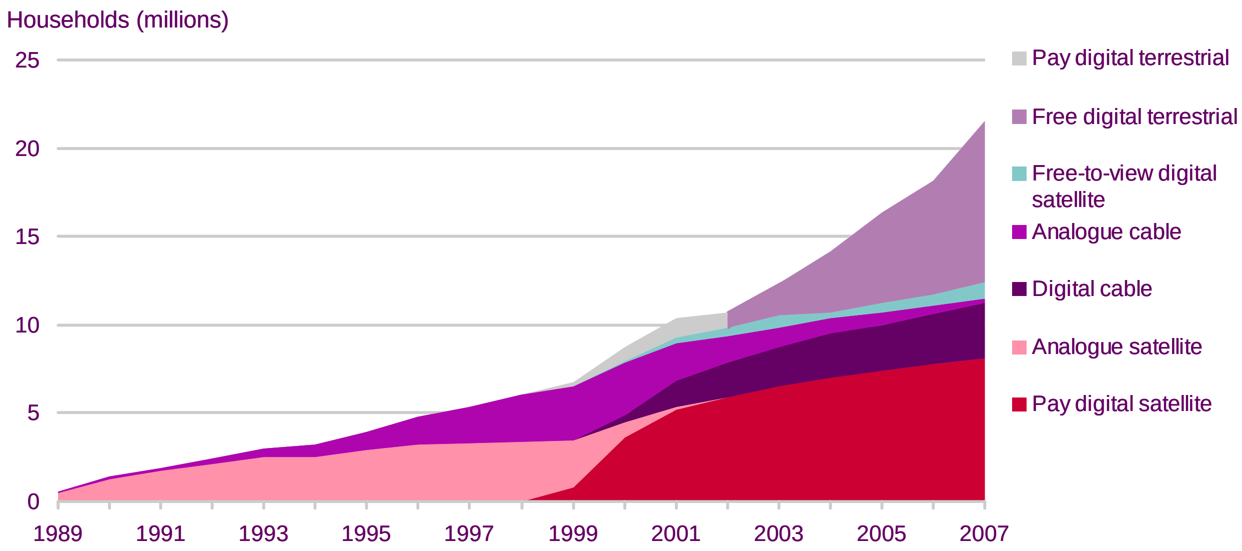
1.9 Pay TV services have also been provided on Digital Terrestrial Television (DTT). ONdigital launched its service in 1998. It re-branded as ITV Digital in 2001, in an attempt to exploit the ITV brand, but went into administration in March 2002, after attempts to renegotiate the terms of its rights deal with the Football League failed. The number of subscribers reached a peak of 1.2 million at the end of 2001.

1.10 Freeview was launched in 2002, using the DTT spectrum released following the failure of ITV Digital. It provided a credible free-to-air alternative for those consumers who wanted multi-channel TV but did not wish to pay for it. There are now 9.3 million Freeview-only households.

1.11 The historic growth in these pay TV and free-to-air services is illustrated in Figure 1 below. It is possible to distinguish three fairly distinct periods of growth:

- Steady growth in analogue pay TV services during the 1990s, on both satellite and cable, driven by access to premium content, and in particular the acquisition by Sky in 1992 of exclusive rights to live Premier League football.
- The migration from analogue to digital at the end of the 1990s, greatly increasing the range of content and value-added services that could be delivered to subscribers.
- Over the last five years, continued growth of Sky's satellite service and of Freeview, alongside very limited growth on cable. The key dynamic in recent years has been between Sky, driving growth in pay TV, and Freeview, driving growth in free-to-air multi-channel TV.

Figure 1 Multi-channel TV penetration



Source: Ofcom, broadcasters, sales data

1.12 There have been a number of important recent developments, including:

- The consolidation and restructuring of the historically fragmented UK cable industry under the Virgin Media brand.
- The emergence of new platforms for delivering pay TV services (BT Vision, Top Up TV, Tiscali / Homechoice) based on new distribution technologies.
- The intervention by the European Commission to change the way in which Premier League football rights are sold. The current football season is the first since 1992 for which Sky has not owned these rights exclusively.

- The increasing importance of convergence, and the bundling of pay TV services with broadband and voice services.

1.13 These mean that the future development of the market cannot simply be extrapolated from the past. In such circumstances it is particularly important that our competition analysis take a forward-looking view, focussing on those characteristics of the market which are most likely to influence its development over the next few years.

The consumer experience

1.14 We have identified a set of criteria against which to assess whether the pay TV market is functioning well in terms of its impact on consumers:

- Overall consumer satisfaction levels
- Choice of platform and content
- Innovation in platform services
- Pricing of pay TV services

1.15 An initial assessment against these criteria suggests that pay TV has delivered significant benefits to consumers. This sector of the broadcast industry has grown from almost nothing in the early 1990s to one that now provides services to over 11 million consumers, and generates more revenue for the broadcast industry than any other source, as well as delivering reasonable levels of consumer satisfaction. We find that 84% of existing consumers of pay TV services are either very satisfied or fairly satisfied with their service.

1.16 Satisfaction levels of course only relate to those consumers currently purchasing pay TV services. There may be certain types of consumers who are not well served by pay TV in the sense that the pricing structure may serve to exclude them from the market. Around half of the consumers who currently take free-to-air digital TV cite price as a reason for not upgrading to a pay TV service.

1.17 Consumers have a significant level of choice, both of the TV platform which they use, and the content which they can access on this platform. There are however limitations to this choice, in relation to the geographic coverage of some distribution technologies, and the availability of some content across platforms:

- Pay TV and free-to-air services based on both satellite and DTT are available to most consumers. However, digital cable is only available to 47% of the population, and relatively few UK consumers can as yet receive IPTV services.

- The total number of channels available to UK consumers is second only to the US amongst our comparator countries (France, Germany, Italy, Spain, Sweden, US). Of the 24 most watched channels, most are available on satellite, cable, IPTV and DTT. The only exceptions are a small number of basic-tier channels owned by Sky (three Sky channels that are not available on cable, and two Sky channels that are not available on DTT).

- Sky's premium sport and movie channels are available on cable as well as via Sky's own satellite platform and via "Sky by Wire" on IPTV, while Setanta's premium sport channels are available on satellite, cable and DTT. However, Sky's cable channels do not have the same interactive capabilities as the satellite channels, and are not available in high definition. Sky's premium content is not currently provided to other retailers on DTT, although Sky has recently proposed its own DTT service.

1.18 The sector has seen significant innovation in recent years. Entirely new platforms are being developed, based on new distribution technologies. Existing platforms have been enhanced to offer a range of new services, including digital video recorders (DVRs), high definition services, increasing availability of video on demand, and increasing levels of interactivity.

1.19 We have attempted to assess whether the benefits set out above have been delivered to consumers at a reasonable level of pricing. The results are however inconclusive. Part of the reason for this is that content markets such as pay TV are characterised by high fixed costs and low variable costs. The marginal cost of producing content for additional viewers is essentially zero, making it hard to establish a simple benchmark for pricing.

1.20 We have therefore compared UK prices with prices in other countries. A headline comparison of revenues per head indicates that UK prices may be high compared to other countries, even at purchasing power parity exchange rates. There are however a number of difficulties with interpreting international benchmarks, especially when the services being delivered in different countries are themselves rather different. The observed differences in price may simply reflect differences in the range and quality of services being offered.

1.21 We have looked at an alternative approach and considered whether there is any evidence that companies are making excessive profits. We have focussed on the profitability of Sky, as the only pay TV provider whose published accounts relate primarily to the provision of pay TV services. We note that:

- On the one hand Sky has not made returns which could be judged to be excessive, particularly given the risk profile when the early investments were being made.
- On the other hand, the ratio of Sky's enterprise value to asset value looks quite high, even after adjustments, although this could be the case for other companies as well.
- It is possible that significant profits may be being made upstream of Sky, for example by content providers, which would not be revealed by this analysis.

Competition in pay TV

Observed characteristics of the pay TV market

1.22 We start our analysis of competition in pay TV by considering a number of characteristics which we believe to be intrinsic to pay TV markets, and the evidence for their existence. These can be grouped into four broad areas:

- Those characteristics which relate to the way in which content is aggregated at different points in the value chain.

- Those characteristics which relate to the way in which the largely fixed costs of producing content are recovered via the pricing structure for downstream services.

- Those characteristics which relate to barriers to switching, at the platform and retail level of the value chain.

- Those characteristics which relate to market structure, in particular the presence in the market of firms which are vertically integrated, and of firms which have a degree of market power.

1.23 **Content aggregation** is significant because consumers have widely differing content preferences. We observe a limited amount of content which is highly valued by large groups of consumers, plus a long tail of content that is attractive to some individual consumers, but not to others. In such circumstances content aggregation is likely to be necessary in order to assemble a credible pay TV proposition. Specific mechanisms for content aggregation are laid out in the table below.

Figure 2 Mechanisms for content aggregation

Level of value chain	Mechanism for content aggregation
Content and production	• Collective selling by the owners of sports rights • Selling on a staggered basis and for a fixed duration of key content rights
Wholesale channel provision	• Aggregation of content into wholesale channels and 'bouquets' of channels
Retail service provision	• Retail bundling of wholesale basic entertainment channels into tiered basic entertainment packs • Buy-through as a mechanism for bundling of basic and premium content • Mixed bundling of sports and movies as a mechanism to encourage the purchase of both forms of premium content

1.24 Content aggregation may also be significant from a competition perspective, because it may provide a means for firms active at particular points in the value chain to establish a degree of market power in relation to certain categories of content. The extent and effect of this market power depends on the extent to which a firm is able to aggregate all content of a particular type which is closely substitutable, and on the wider importance of this content.

1.25 We have carried out an analysis of market definitions and market power in pay TV content markets. Our initial conclusions are that distinct narrow economic markets exist for pay TV subscription channels containing premium sports and movies content, at both the wholesale and retail level of the value chain, and that Sky has market power in these markets. We note in particular that:

- Consumers do not appear to regard other forms of content as being readily substitutable for this premium content, nor do they regard premium content distributed by other means (e.g. DVDs, pay per view) as being readily substitutable for premium channels. The price which can be charged for these premium channels is therefore unlikely to be constrained to the competitive level by the availability of other content.

- Sky has a very high market share in the supply of these premium pay TV subscription channels, creating a presumption that it has market power. Other factors relevant to a market power assessment, such as the existence of high barriers to entry, support this presumption.

1.26 **Pricing structure** is a significant characteristic, because the upstream costs of producing content do not vary with the number of viewers, but are recovered at the retail level via a per-viewer subscription charge. This provides a strong incentive for retail price discrimination, in which consumers with a higher willingness to pay are charged a higher price. Pricing mechanisms at different levels of the value chain are summarised below.

Figure 3 Pricing mechanisms

Level of value chain	Pricing mechanisms
Content and production	• Production costs are high but do not scale with the number of viewers • Content rights are typically sold for a fixed fee, and on an exclusive cross-platform basis
Wholesale channel provision	• Channels are usually licensed for a per subscriber fee, often with platform-specific exclusivity clauses
Retail service provision	• Bundling and buy-through provide mechanisms for price discriminating among consumers with widely varying content preferences

1.27 It is important to emphasise that bundling and price discrimination are not necessarily a source of concern. Indeed, some form of price discrimination is almost certainly necessary in order to allow content to be distributed widely to consumers, whilst still allowing the recovery of content production and distribution costs. Our level of potential concern with bundling and price discrimination will therefore depend on the particular circumstances:

- In a situation where marginal cost of distribution is low, such practices are likely to offer overall efficiency benefits.

- If these practices take place in the context of a competitive market, they are likely to promote consumer welfare.

- In a situation where there is market power, such practices may still result in increased efficiency. However, much of the benefit is likely to accrue to the producer, away from the consumer.

- In a situation where the market power can be leveraged into other markets it is likely to produce additional competition concerns without any compensating efficiency benefits.

1.28 **Switching barriers** may be important, at both the retail and platform levels of the value chain, since they may result in particular platforms or retailers having a gatekeeper function between content providers and consumers. In the limiting case of very high switching costs we might regard individual platforms or individual retailers as being within narrow economic markets, within which those platforms or retailers have market power.

1.29 It is possible to identify three different types of switching:

- Between retailers on the same platform. The open nature of Sky's satellite platform means that it can support multiple retailers. The main barriers to switching between retailers on this platform are those associated with a change of contracts.

- Between retailers on different platforms, but where those platforms use the same distribution technology. Where a single distribution technology supports multiple platforms, as is the case for IPTV, consumers wishing to switch retailer may need to change or upgrade their set-top box as well as switching to a new retail contract.

- Between retailers on different platforms using different distribution technologies. Switching barriers between retailers using different delivery technologies are likely to be more substantial, as demonstrated by low historic levels of switching between cable and satellite. This is because of the cost and inconvenience associated with the provision of a new cable connection or satellite dish. Note however that these switching costs may be lower in the case of platforms based on DTT (given the presence of an existing DTT-capable aerial) and IPTV (given the presence of an existing IPTV-capable broadband connection).

1.30 In addition to the switching barriers intrinsic to pay TV, further switching barriers may be added through the bundling of pay TV and other services. For example, BT Vision is only available to consumers purchasing retail broadband from BT, so consumers wishing to switch to BT Vision may also have to change their broadband service.

1.31 **Market structure** may be important, in particular the presence in the market of firms which are vertically integrated and / or which have a degree of market power. We observe that vertical integration is a common characteristic of broadcast markets. Sky and Virgin Media, for example, both operate at the retail, platform operation, and wholesale channel provision levels of the value chain.

1.32 Vertical integration can be beneficial, in that it can enable firms to exploit synergies between different layers of the value chain and therefore deliver efficiency improvements. However, vertically integrated firms are also likely to have an incentive to favour other parts of their business at different levels of the value chain; this could be detrimental to competition. Market power can enhance the ability of firms to act on these incentives.

Operation of the market

Content aggregation

1.33 We have considered how these characteristics might play out in practice and affect the overall operation of the market. Our starting point is the importance of content aggregation. As noted above, we believe that aggregation of premium sports and premium movies content is both likely to occur in theory, and has occurred in practice. We have therefore considered what this might mean for the operation of these narrow content markets, as well as for the downstream markets which rely on access to premium content.

1.34 Our initial conclusion is that there is likely to be a strong incentive for firms to aggregate premium content as far up the value chain as is practical, in order to capture the associated benefits of aggregation. We observe that most aggregation of premium content occurs at the content production and wholesale channel provision levels of the value chain, by sporting associations such as FAPL, and by wholesale channel providers such as Sky.

1.35 This suggests that, to the extent that there are any monopoly rents associated with the aggregation of premium content, these will flow upstream. Although they may affect pricing, they are unlikely to result in excessive profits being generated by retail pay TV providers, and may not result in excessive profits at the wholesale channel level either. Any intervention to address concerns associated with any monopoly rents would also have to take place upstream, for example by preventing aggregation of content rights.

1.36 An important corollary of the above is that even in circumstances where premium content is made available to all retailers, and there is effective competition at the retail level, this competition may not drive the retail price of the premium content down to the competitive level. By setting a high wholesale price for the premium content which it supplies to all retailers, a wholesale channel provider with market power may be able to maintain high retail prices.

1.37 Aggregation of basic content is also likely to take place, but is less likely to lead to the creation of market power. Wholesale markets for basic content are relatively broad, making it considerably more difficult for one wholesale channel provider to aggregate all the basic content which might be regarded as substitutable.

The effect of content aggregation on retail competition

1.38 The existence of bundling efficiencies at the retail level suggests that there may be a tendency for a single dominant retailer to emerge on each platform. The extent to which this is the case in practice depends on a number of factors, including how many channels typically need to be included in a content bundle before bundling efficiencies become exhausted, and whether the platform has sufficient capacity to support multiple bundles of this size.

1.39 Where a single dominant retailer emerges on a platform solely because of retail bundling efficiencies, this may be a source of concern, but one which we should take a cautious approach to remedying. This is because (as noted in paragraph 1.27 above) the bundling of content in circumstances where there is market power may still result in improved efficiency, even though much of the benefit of this increased efficiency is likely to accrue to producers rather than consumers.

1.40 It may be appropriate to intervene in such circumstances in order to ensure that a greater proportion of the benefits of content aggregation flow through to consumers, but there is a significant risk that any intervention will also reduce efficiency. For example, an intervention to make content available ‘à la carte’ will increase the ability of consumers to tailor their purchases to their personal preferences, but is also likely to increase the stand-alone price of this content, potentially undermining any benefits associated with such an intervention.

1.41 However, we also note above that where content aggregation results in the creation of market power, which can then be leveraged into other markets, it is likely to produce additional competition concerns without any compensating efficiency benefits. Such leverage is likely to be of particular concern from a competition perspective.

1.42 We identify two specific areas of concern in relation to the potential for leverage:

- **The vertical relationship between wholesalers and retailers of premium content.** The level of competition between retailers of premium content is likely to depend on what premium content is made available to them by wholesalers, and on what basis. This question is likely to be particularly relevant 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.

- **The horizontal relationship between the retailing of premium content and the retailing of basic content.** The level of competition between retailers of basic content is less likely to depend on what basic content is made available at the wholesale level, given that aggregation of basic content at the wholesale level is unlikely to create market power. However, retail competition in basic content may still be restricted if the availability of premium content is restricted, and if there is a strong linkage at the retail level between the sale of premium and basic content, due to mechanisms such as buy-through.

1.43 We therefore consider that the way in which competition plays out in practice may depend to a significant extent on whether vertically integrated firms make their premium content available to other retailers, and whether buy-through is enforced at the retail level. In what follows we consider the incentives which might influence these outcomes. We first consider the short-run operation of the market, in which established firms compete with each other, and we then consider longer-term dynamic effects associated with potential new market entry.

Short-run operation of the market – access to premium content

1.44 Our initial analysis suggests that wholesale channel providers, including those which are vertically integrated, may be willing to license their content to retailers on other platforms, but not to retailers on platforms or distribution technologies on which they are already present. This means that each channel is likely typically to appear once on each established platform.

1.45 In reaching these initial conclusions we have considered the following questions:

- Do vertically integrated operators have the incentive and ability to prevent downstream competitors' access to content?

- Do vertically integrated operators have the incentive to supply reduced quality and / or quantity of content to downstream competitors?

1.46 It is important to note that monopolisation of content at the wholesale level does not necessarily imply a lack of competition at the retail level. Where a wholesale channel provider has successfully aggregated content or acquired a set of aggregated content on an exclusive basis, it may nonetheless seek to license its channels to multiple retailers. Whether it does so in practice is likely to depend on the balance between the following incentives:

- There is likely to be an incentive to license channels to multiple retailers in order to maximise subscription revenues and advertising revenues. Channels are typically licensed on the basis of a per-subscriber charge, while advertising revenues are typically based on the number of advertising impacts delivered. Both will be maximised by making channels available to all retailers.

- There is likely to be an incentive to license channels on an exclusive basis to specific retailers if:
  - Retailers are able to exploit this exclusivity to strengthen their position in the retail market, by using their access to content to persuade consumers to switch to their service; and
  - There is a mechanism for the wholesale channel provider to share in the benefits associated with retail exclusivity. Such a mechanism clearly exists for vertically integrated wholesale channel providers and retailers. A mechanism also exists in the absence of vertical integration, in that a third party channel provider can share the benefits of retail exclusivity by including an exclusivity premium in its per subscriber subscription charge.

1.47 A key factor in determining the outcome of these incentives in the short run is likely to be the cost of switching between retailers. Where switching costs are high, a vertically integrated wholesale channel provider would be likely to have an incentive to make its content available to other retailers, since by doing so it would gain additional wholesale revenue, without a significant impact on its retail business. Where switching costs are low, a vertically integrated wholesale channel provider would be likely to have an incentive to deny content to other retailers, in order to protect its own retail business.

1.48 We noted above that switching costs are likely to be higher when consumers are switching between retailers on different platforms than they are when consumers are switching between retailers on the same platform, or different distribution technologies. A vertically integrated wholesale channel provider is therefore more likely to make its content available to alternative retailers on other platforms where it is not present than to alternative retailers on any platform or distribution technology on which it is present.

1.49 This fits with what we observe, in that wholesale channel providers do tend to make their content available to retailers on other platforms, but do not appear to make their content available to other retailers on the same platform, or to retailers on other platforms using the same distribution technology. We note in particular that Sky does make its premium content available to one retailer on another platform – Virgin Media on cable, where Sky is not itself present as a retailer – but does not appear to make its premium content available to other retailers on its own satellite platform. Nor has it yet made its premium content available on DTT, where it has announced its desire to launch its own retail operation.

1.50 Even where it does make its premium content available, a wholesale channel provider may have an incentive to supply a reduced amount or quality of content to third party retailers. In certain circumstances, the wholesale revenue it gives up by doing this may be offset by a larger gain in its own retail profits, because some consumers may switch to obtain value-added services or enhanced content that are unavailable via the third party retailer's service. This effect may be magnified if the channel provider / retailer is also vertically integrated with platform operation, because it is also likely to consider platform profits where the third party retailer operates on a different platform to its own retail business.

1.51 This appears to be consistent with what we observe, in that the premium channels supplied by Sky to Virgin Media do not support the interactive capabilities of the equivalent satellite channels, and are not available in high definition. We acknowledge however that there may also be technical reasons (e.g. technical inter-operability, limitations on platform capabilities) why it may not be straightforward to supply certain enhanced content or value-added services to other platforms, and that this may at least in part explain the reduced capabilities of the channels which Sky supplies to Virgin Media

Short-run operation of the market – basic content

1.52 We have considered whether the practice of buy-through, whereby consumers are required to buy a basic package before they can buy a premium package, may restrict competition in the provision of basic retail services. We note that buy-through may be a perfectly rational strategy for a retail provider, but that it may also have an exclusionary effect.

1.53 Potential competitors in the retail market for basic content packages are faced with the prospect of competing for two broad types of consumers: those who value basic content, but do not highly value premium content, and those who also value premium content. The existence of buy-through means that the latter group of consumers have no choice but to purchase a combined basic / premium bundle, and they will do so from whichever retailer on their chosen platform has access to premium content. Such consumers may be unwilling to purchase a further basic package from a different provider on the same platform. The effect of buy-through may therefore be to restrict competition in basic content between retailers on the same platform.

1.54 In contrast, if the buy-through no longer operated, and premium content were available on a stand-alone basis, then some of those consumers who value both basic and premium content may purchase these from different retailers. We acknowledge that the stand-alone prices of basic and premium content may be such as to make this unattractive for consumers. However, at the moment, it is not open to the market to determine whether this would be the case

Long-run operation of the market – access to premium content

1.55 Finally, we have considered the extent to which limited access to premium content might restrict market entry by new firms. This is of critical importance, since while it might be possible to characterise the last decade or so as being a process of competition between two established pay TV providers, one on cable and one on satellite, we are now at a point in time where new market entry is becoming increasingly possible, based on new distribution technologies. We therefore need to be particularly alert to the risks associated with dynamic foreclosure, i.e. the risk that firms already present in the market might exploit certain dynamic characteristics of the market to foreclose entry by new providers.

1.56 We have considered two questions under this longer-run model of the market:

- Are there significant barriers that prevent entry into the upstream market for the provision of wholesale channels? Is there a risk of foreclosure?

- Do vertically integrated operators have the incentive and ability to foreclose potential new retailers and / or platform operators by denying them content?

1.57 In relation to the first of these questions, we note that there are significant first-mover advantages in the market for premium wholesale channel provision. These arise because of bundling efficiencies, and the existence of a limited set of key content rights, which only become contestable on a staggered basis. A new entrant that wishes to assemble a viable portfolio of rights must gradually accumulate those rights, by repeatedly winning the bidding for different pieces of content, a process which may take months or years. Such a new entrant may need to incur initial losses, in order to outbid the incumbent, which is able to extract more value from those rights.

1.58 In addition to those barriers to entry which are intrinsic to content markets at the wholesale level, a vertically integrated incumbent may have an incentive to create additional barriers to entry by exploiting its position in downstream markets. For example, a vertically integrated incumbent such as Sky may have an incentive to restrict access to its platform by a new entrant such as Setanta, thereby making it more difficult for such a new entrant to monetise its rights, particularly during the period within which it is still building its rights portfolio. We acknowledge however that Sky's ability to do this will be limited, due to the regulatory obligations which it faces in relation to platform access.

1.59 In relation to the second of these questions, we note that a vertically integrated incumbent is likely to have a much greater incentive to deny its content to a new retailer, or a new platform, than an established retailer or an established platform. By refusing to supply its content to a new entrant it is not foregoing significant levels of wholesale revenue, but it is protecting itself from a potential threat. This potential threat might relate either to the incumbent's platform, or to the incumbent's retail business.

1.60 Whereas the short-run model set out above suggest a degree of competition between established platforms, albeit not between multiple retailers on each platform, these dynamic foreclosure arguments raise concerns that effective competition from new platforms may not emerge.

Summary of possible concerns

1.61 We may have competition concerns where aggregation of content by a particular provider leads to the creation of market power. However, aggregation of content into service bundles is also likely to result in efficiency gains, which may benefit consumers. There is a risk that any intervention to prevent bundling *per se* could undermine these efficiency benefits, and therefore be counter-productive.

1.62 However, if any market power which results from content aggregation can then be leveraged into other markets, then this is likely to produce additional competition concerns without any compensating efficiency benefits. Such leverage is likely to be of particular concern from a competition perspective.

1.63 Bundling efficiencies mean that platforms may be prone to "tipping" towards one retailer, particularly where one retailer on a platform has exclusive control over a core of premium content. In such circumstances consumers are likely to be particularly dependent on the existence of effective competition between vertically integrated platform operators / retailers. This is likely in turn to depend on whether retailers on different platforms are able to gain access to premium content.

1.64 We have four particular concerns with the prospects for this kind of inter-platform competition:

- There may be significant barriers to entry into the market for premium wholesale channels. These are primarily due to the way in which content rights become contestable only on a staggered basis. These barriers to entry may be exacerbated by the presence of a vertically integrated incumbent, which has an incentive to control access to downstream markets, albeit its ability to do so may be restricted by regulation.

- Although a vertically integrated incumbent may supply content to established retail competitors, in order to generate wholesale revenues, it may have the ability and incentive to reduce the quality of what it supplies, in order to strengthen its own retail offering relative to its competitors. We acknowledge however that such reductions of quality may also arise naturally, due to technical inter-operability issues.

- A vertically integrated incumbent may have the incentive and ability to foreclose potential new retailers by denying them content.

- The prevalence of vertical integration between retail and platform operations may cause this problem to extend to foreclosing the possible development of new platforms.

1.65 It is unlikely that owners of premium content will make this content available to multiple retailers on the same platform. Despite this, it is still possible that competition might emerge between different providers of basic content on the same platform. However, the prospects for this type of competition may be restricted by the existence of buy-through, which requires consumers wishing to purchase premium content to purchase basic content from the same provider.

Next steps

1.66 We welcome views on our initial assessment of the operation of the market. We would particularly welcome views on the level of risk associated with the dynamic foreclosure arguments set out above.

1.67 The consultation responses received will enable us to examine whether there are competition issues requiring further action. Such further action may involve steps being taken under the legal powers discussed at Annex 7.

1.68 Some allegations concerning anti-competitive conduct have already been aired in the submission. During the next stage of this investigation our analysis will include consideration of any alleged anti-competitive behaviour, and how this might interact with some of the broader issues discussed in this consultation.

Section 2

Context

Process

2.1 On 16 January 2007, Ofcom received a preliminary submission from British Telecommunications plc ('BT'), Setanta Sport Holdings Limited ('Setanta'), Top Up TV Europe Limited ('Top Up TV'), and Virgin Media Limited ('Virgin Media'), collectively referred to in this document as 'the Parties', which asks Ofcom to investigate the pay TV industry and to consider whether to make a market reference to the Competition Commission under the Enterprise Act 2002.

2.2 Pay TV includes subscription and video-on-demand television services over a variety of distribution technologies: cable, digital terrestrial television (DTT), satellite and TV over IPTV.

2.3 The preliminary submission alleged that competition in the UK pay TV industry is not working effectively and that there are features of the industry that result in competition being prevented, restricted or distorted.

2.4 The Ofcom Consumer Panel and the National Consumer Council have also expressed concerns to Ofcom about one aspect of the pay TV market: the loss of Sky channels on Virgin Media's pay TV platform.

2.5 Given its principal duty to promote competition in broadcasting markets, these concerns prompted us to announce on 20 March 2007 that it would investigate the pay TV market. The eventual aim of this investigation is to determine whether there are competition issues in pay TV which require action by us.

2.6 The four submitting parties provided a second submission ('the Submission') in July 2007 which built on their first submission, in particular providing some additional analysis of international price comparisons. A non-confidential version of this submission was provided to British Sky Broadcasting Group plc ('Sky'), since considerable mention is made in it of Sky's particular role in the market. Sky has since, on 30 October 2007, provided a response of its own. The non-confidential versions of both submissions were published on 6 December[1].

2.7 Under our duty to promote competition, we have been collecting evidence and carrying out analysis to understand the operation of the pay TV sector. Much of this has been achieved through engaging with stakeholders, who have responded to our requests for information, and conducting market research to understand consumer behaviour.

Strategic context of the investigation

2.8 It is important that Ofcom has an understanding of current and future developments in each part of the communications landscape. We have already undertaken strategic reviews of fixed telecommunications, Public Service Broadcasting (PSB), radio and

[1] See: http://www.ofcom.org.uk/media/news/2007/03/nr_20070320

spectrum. Each of those reviews highlighted key trends for the industry under consideration and pointed out potential difficulties it might face.

2.9 Although this investigation into the pay TV market was triggered by the preliminary submission from the Parties, it is important that we take a similarly strategic approach, and consider the Submission and Sky's response within a broader context. We need to take a forward-looking view of how the market might evolve in light of a number of recent developments, including:

- The consolidation and restructuring of the historically fragmented UK cable industry under the Virgin Media brand.
- The emergence of new platforms for delivering pay TV services (BT Vision, Top Up TV, Tiscali / Homechoice) based on new distribution technologies.
- Increasingly wide take-up of free-to-air multi-channel TV through Freeview.
- The intervention by the European Commission to change the way in which Premier League football rights are sold. The current football season is the first since 1992 for which Sky has not had exclusive ownership of these rights.
- The increasing importance of convergence, and the bundling of pay TV services with related broadband and voice services.

2.10 In view of this strategic context, we have gathered a range of evidence on pay TV and related markets:

- New consumer research covering matters such as consumer preferences, switching behaviours, and overall satisfaction levels.
- Various information from industry players, including information on the contractual arrangements that are in place at different levels of the supply chain.
- Reports on the structure of the two content markets which are most relevant to pay TV; the markets for sports rights and for movie rights.
- Reports on the way in which pay TV markets operate in other countries.

This document

2.11 This document sets out our preliminary understanding of the pay TV industry and its constituent markets. We have considered how a number of observed characteristics of the pay TV industry interact to affect likely market outcomes. We have taken a view of what this could mean for consumers. The focus of the investigation has been on the provision of retail pay TV services, and those upstream markets which are directly relevant.

2.12 We have not yet reached a view on the existence of competition problems.

2.13 We are at this stage seeking stakeholders' views on our preliminary understanding of the market and the possible effect of this on consumers. We will use the responses to the consultation to determine what further steps, if any, should be taken in the investigation. Full details of how to respond to this consultation are set out in Annex 1.

2.14 This is the non-confidential version of this document. Confidential information and data have been redacted. Redactions are indicated by "**[✂]**"

2.15 We have set out these views in the remainder of the document as follows:

- Section 3 sets the context for the rest of the document by describing the historical development of the UK pay TV sector, and the current market structure.
- Section 4 provides an assessment of the consumers' experience of the pay TV industry.
- Section 5 sets out some basic building blocks for an analysis of competition in the sector, including an analysis of market definition and market power. It then sets out certain observed characteristics of pay TV markets, and the available evidence which relates to these characteristics.
- Section 6 provides a forward-looking analysis of the manner in which competition might be expected to operate in this sector, based on the observed characteristics.
- Section 7 describes the next steps in this investigation.

2.16 In addition there are a number of annexes that provide more in-depth background information. These are as follows. Annexes 1 to 6 are contained within this document. Annexes 7 to 16 are available as separate documents.

- Annexes 1 to 5 are the standard annexes that accompany any Ofcom consultation, dealing primarily with impact assessment and how to respond to this consultation.
- Annex 6: glossary of terms used in this consultation
- Annex 7: legal framework and regulatory environment.
- Annex 8: UK market landscape.
- Annex 9: summary profiles of France, Germany, Italy, Spain, Sweden, United States pay TV sectors (report by Spectrum Value Partners).
- Annex 10: summary of UK sports rights (report by Spectrum Value Partners).
- Annex 11: summary of UK film rights (report by Screen Digest).
- Annex 12: additional information on the profitability analysis contained in chapter 4.
- Annex 13: additional information on the analysis of market definitions and assessment of market power contained in chapter 5.
- Annex 14: summary of quantitative consumer research used in this investigation.
- Annex 15: summary of focus group research carried out for this investigation.

- Annex 16: summary of competition investigations involving pay TV in other jurisdictions.

Legal framework

2.17 Ofcom has a principal duty under the Communications Act 2003 (CA03) to further the interests of consumers in relevant markets, where appropriate by promoting competition. This duty to promote competition means that we are required, where appropriate, to take a dynamic and forward-looking view of the effectiveness with which competition might deliver benefits to consumers.

2.18 Other general duties relevant in this context include the requirements under s3(2) CA03 for Ofcom to secure:

- the optimal use of the electro-magnetic spectrum;
- the availability throughout the UK of a wide variety of electronic communications services;
- the availability throughout the UK of a wide range of TV and radio services of high quality which appeal to a variety of tastes and interests; and
- the maintenance of a sufficient plurality of providers of different TV and radio services.

2.19 Section 3(4) CA03 sets out certain other factors which Ofcom should have regard to in performing its principal duty of furthering the interests of citizens and consumers. The ones which are most likely to be relevant in this context are:

- the desirability of promoting competition in relevant markets;
- the desirability of encouraging investment and innovation in relevant markets;
- the desirability of promoting the fulfilment of the purposes of public service television broadcasting (PSB) in the United Kingdom;
- the desirability of encouraging the availability and use of high speed data transfer services throughout the UK;
- the different needs and interests of all users, both current and potential, of the spectrum used for television; and
- the opinions of consumers and members of the public.

2.20 Under section 3(5) Ofcom must also, when performing the duty of furthering the interests of consumers, have regard to the particular interests of those consumers in respect of choice, price, quality of service and value for money.

2.21 In relation to the regulation of technical platform services Ofcom must also have regard to its duties to fulfil Community obligations under s4 CA03.

2.22 Following this consultation exercise Ofcom will examine whether there are competition issues requiring further action. Such further action may involve steps being taken under the legal powers set out at Annex 7.

Criteria for assessing outcomes of the pay TV market

2.23 In applying our general duties, we need a more specific set of criteria against which to assess outcomes in the pay TV industry. These criteria should enable us to judge the extent of any consumer detriment associated with any competition concerns.

2.24 We are therefore proposing a set of criteria for use in assessing whether the market is functioning effectively – i.e. whether it is delivering benefits to consumers now, and likely to deliver benefits in the future. These criteria, which reflect the section 3(5) requirement to “have regard to the particular interests of those consumers in respect of choice, price, quality of service and value for money”, are:

- **Choice of platform and content**:
    - Choice for consumers of platform, and of content once platform selection is made.
    - Switching between retailers and platforms should not be artificially difficult.
    - Generation and availability of a broad range of high-quality content: a variety of content continues to be generated, and made available to consumers on all platforms.
- **Innovation in platform services:** for example in terms of interactivity, set-top box functionality such as DVR capabilities, or video-on-demand options.
- **Pay TV services priced competitively and efficiently**:
    - Prices which give consumers good value and allow efficient producers to earn a reasonable return on their investment.
    - A sufficient variety of price points / bundles to allow consumers to tailor their purchases to meet their preferences.

Existing regulation

2.25 As part of setting the context for this investigation, it is helpful to outline some of the existing regulatory background which is relevant to the pay TV industry.

2.26 Two particular elements of this background are discussed in outline below. A more detailed summary of existing regulation is provided at Annex 7, and links are provided for those seeking further information.

FA Premier League[2]

2.27 In March 2006, the European Commission adopted a decision to accept binding commitments from the FA Premier League concerning the sale of media rights for the FA Premier League competition. The European Commission therefore dropped its competition law proceedings under Article 81 of the EC Treaty into the collective selling arrangements.

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[2] For more details, see: http://ec.europa.eu/comm/competition/antitrust/cases/index/by_nr_76.html#i38_173

2.28 The primary provision of the commitments was to make available six packages of live rights, each for 23 matches. No one bidder is allowed to own all six packages and the commitments set transparency and non-discrimination conditions for the bidding process. The rights are offered for three seasons. The current arrangements therefore relate to the 2007/8 to 2009/10 seasons, and the provisions remain in force until 2013. In the auction for the rights in spring 2006, Sky won four packages, and Setanta two. The commitments also provide for the sale of other packages, e.g. near-live TV rights and mobile rights.

Technical Platform Services (TPS) and EPG code

2.29 Broadcasters and operators of interactive TV services who wish to make their content available on the set-top boxes of platform operators (such as Sky in the case of DSat) can make use of a number of different technical platform services (TPS) relating to encryption (conditional access), electronic programming guides, and interactive technology and systems.

2.30 A series of regulations have been put in place to ensure access by third parties to TPS. These regulations are governed at EU level by the Access Directive[3] and implemented under CA03. Obligations relating to TPS are currently only in place for Sky Subscriber Services Limited ("SSSL"), a subsidiary of Sky. Ofcom reviewed these obligations in 2005 / 2006, and put in place new guidelines in September 2006[4].

Related projects

Review of Wholesale Digital Television Broadcasting Platform Markets[5]

2.31 In October 2006, we announced that we were in the process of conducting a review of wholesale digital television platform markets. This review will, among other things, include a determination of which firms, if any, have market power in relation to access to digital television platforms, and what remedies might be appropriate to address any concerns arising from this market power.

2.32 We note however that:

- As set out above, the most significant existing regulation of TV platform markets (the TPS obligations imposed on Sky) were reviewed relatively recently. New TPS guidelines were put in place in September 2006.

- The more strategic issues which might be considered in the platform review overlap with issues raised in this market investigation. This market investigation potentially has a broader scope than the platform review, and so may be a better vehicle for consideration of such issues.

2.33 We have therefore given priority to this market investigation. We expect to restart the platform review once there is greater clarity as to the likely range of outcomes of the

[3] Directive 2002/19/EC.

[4] See: http://www.ofcom.org.uk/consult/condocs/tpsguidelines/statement/

[5] See: http://www.ofcom.org.uk/tv/ifi/marketreviews/wholesaledtvb/

market investigation. It may be that issues arise from this market investigation which relate to the regulation of TV platforms, and the platform review may be the appropriate vehicle for addressing such issues.

Proposed Sky digital terrestrial television services[6]

2.34 On 4 October 2007, Ofcom published a consultation document on a proposal from Sky and National Grid Wireless to replace Sky's free channels with pay TV services on the digital terrestrial television (DTT) platform. There are issues raised by the proposal, such as market definition and market power, which will inform the ongoing pay TV market investigation and vice versa. The market investigation is, however, not running to the same timetable as our review of the proposal.

Consultation questions

1. Do you agree with the criteria against which we propose to assess the functioning of the pay TV sector?

[6] See: http://www.ofcom.org.uk/consult/condocs/dtv/

Section 3

Overview of the UK pay TV market

Introduction

3.1 In this chapter we summarise the development and current structure of the pay TV market in the UK. We also provide some comparisons with pay TV markets in other countries.

3.2 The chapter is set out as follows:

- The history and development of multi-channel TV in the UK;
- Structure of the TV value chain;
- Sources and flows of revenue in UK pay TV;
- Recent and current innovation in pay TV;
- International comparisons;
- The role of content in pay TV.

3.3 Further detail on much of this material is set out at Annex 8, whilst the report on pay TV in other countries produced by Spectrum Value Partners is at Annex 9.

History and development of multi-channel TV services in the UK

Pay TV services

3.4 The emergence and growth of pay TV in the UK and elsewhere has historically been driven by the development of new platforms based on cable or satellite distribution technologies, which provided consumers with the option of paying for a wider choice of content than had traditionally been available from free-to-air terrestrial broadcasters. In the UK, this emergence and growth has largely happened over the last 20 years.

3.5 The main cable- and satellite-based operators are:

- Sky, created by the merger of Sky Television and British Satellite Broadcasting in 1990. Sky is now the major platform operator and retailer of satellite-based pay TV services in the UK. By the end of Q3 2007 there were 8.2 million Sky subscribers.
- Virgin Media, created by a consolidation over 13 years of the cable franchise areas set up in 1984, culminating in the merger of NTL and Telewest in 2006, and the subsequent re-branding of their services in 2007 to Virgin Media. Virgin is

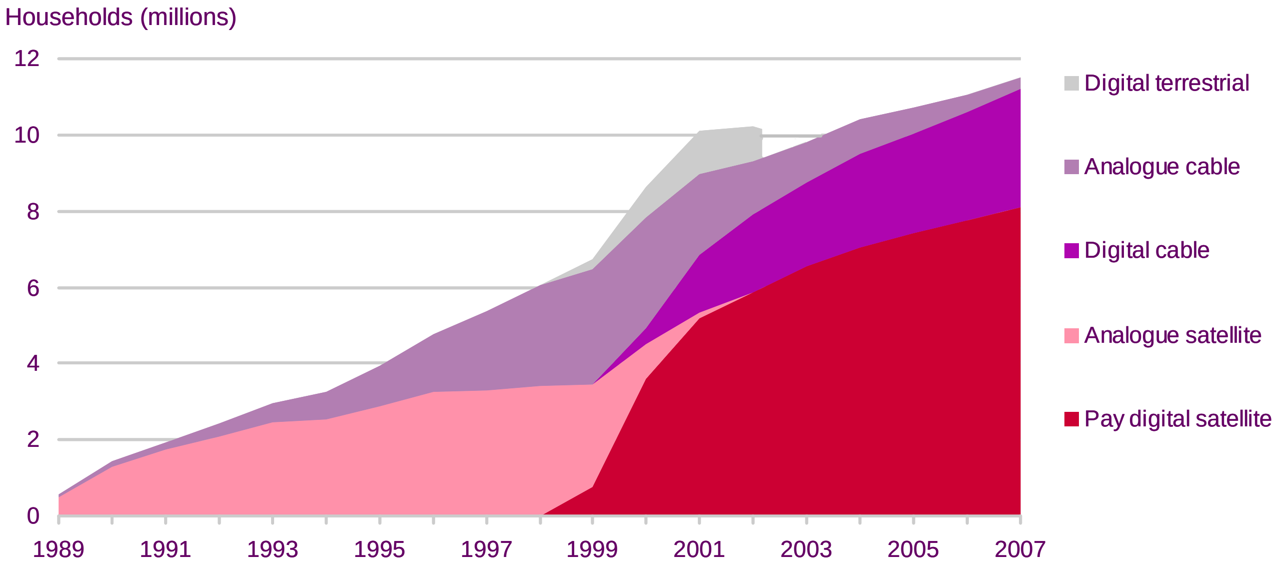
the main retailer of cable-based pay TV services in the UK[7]. In Q2 2007 Virgin Media had 3.4 million subscribers.

3.6 Both cable- and satellite-based providers initially broadcast using analogue technology but have since switched to digital. Sky migrated all its customers from analogue satellite to digital satellite between 1998 and 2002. The switch by cable has been slower, but almost all cable customers are now digital (only 8% of cable homes are still analogue, corresponding to 0.3 million consumers)

3.7 Between Q4 1998 and Q1 2002 pay TV services were offered on Digital Terrestrial Television (DTT) by ONdigital (owned by Carlton and Granada). In 2000, ONdigital agreed a £315m three year deal with the Football League for live rights to Nationwide League matches. In 2001 ONdigital re-branded to ITV Digital in an attempt to boost take-up by exploiting the ITV brand. The number of subscribers to ONdigital was lower than originally hoped for but still reached a significant total of 1.2 million by the end of 2001[8]. ONdigital was not without technical problems – there was a tendency for the set-top box software to crash, and coverage was only 50% to 60%[9]. In March 2002, Carlton and Granada put the company into administration after attempts to renegotiate the terms of the Football League deal failed.

3.8 Figure 4 below shows the growth over the last 15 years in the pay TV services listed above, split by analogue and digital subscribers.

Figure 4 Pay TV platform penetration 1989-2007 (main TV set)[10]



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[7] Smallworld Media also offers cable services to some areas of Scotland and Northern England, and Wight Cable operates on the Isle of Wight.

[8] ONdigital originally projected one million subscribers by the end of 2000, and two million by early 2003.

[9] See for example "Football in the New Media Age", by Raymond Boyle and Richard Haynes.

[10] Subscriber numbers for Top Up TV are not publicly available.

Source: 1989-1996 data from ITC, platform operators and BARB for July of each year; 1997 from Sky and ITC reports; 1998-2006 data from Ofcom estimates, platform operators and GfK research for Q2 of each year

3.9 In the period since the migration from analogue to digital, there has been continuing strong growth in the total number of subscribers to Sky, but not in the total number of cable customers. In Q1 1999 the number of pay TV subscribers on Sky and on cable were broadly similar (3.5 million and 3.0 million respectively). By Q3 2007 there were many more subscribers on Sky (8.2 million as compared to 3.4 million for cable – i.e. Sky has approximately 70% of all subscribers). Recent growth has therefore been driven predominantly by Sky's satellite service. Almost half of UK households now subscribe to some form of pay TV service.

3.10 Pay TV was reintroduced on the DTT platform by Top Up TV in 2004, leveraging the existing population of ONdigital set-top boxes. Top Up TV sub-leases DTT capacity from Five on SDN-owned multiplex A. It has recently replaced nearly all its linear channels by making content available via its push-VoD service, Top Up TV Anytime, which launched in August 2006.

3.11 Other pay TV services have also emerged in recent years, including the Tiscali IPTV service (previously known as Homechoice) and the BT Vision hybrid IPTV / DTT service, for which latest reported subscriber numbers are 36,000 and 70,000[11] respectively. Sky retails some of its channels directly to Tiscali subscribers under its "Sky by Wire" brand.

Free-to-air services

3.12 The transition to digital has also been important for the development of free-to-air services, allowing free-to-air broadcasters to offer a much wider range of channels within the available radio spectrum than they could using analogue transmission. In particular, Freeview was launched in 2002 using DTT spectrum released following the failure of ONdigital, and has had a key role in driving growth in UK multi-channel digital TV. In Q3 2007, there were 9.3 million DTT-only homes[12]. In Q2 2007, DTT overtook digital satellite as the distribution technology most widely used on the main set in UK households.

3.13 An estimated one million households also receive free-to-view digital satellite. Such households receive channels either by stopping their subscription to Sky's pay services and retaining satellite reception equipment which allows them to pick up free-to-air channels; using satellite reception equipment from other retailers with a viewing card; or taking up Sky's "Freesat from Sky" service. For this latter service customers pay a £150 upfront fee for satellite reception equipment, and can receive around 200 free-to-view channels.

3.14 Figure 5 below shows the recent growth in multi-channel digital free-to-air services overlaid on the growth in pay TV services discussed previously:

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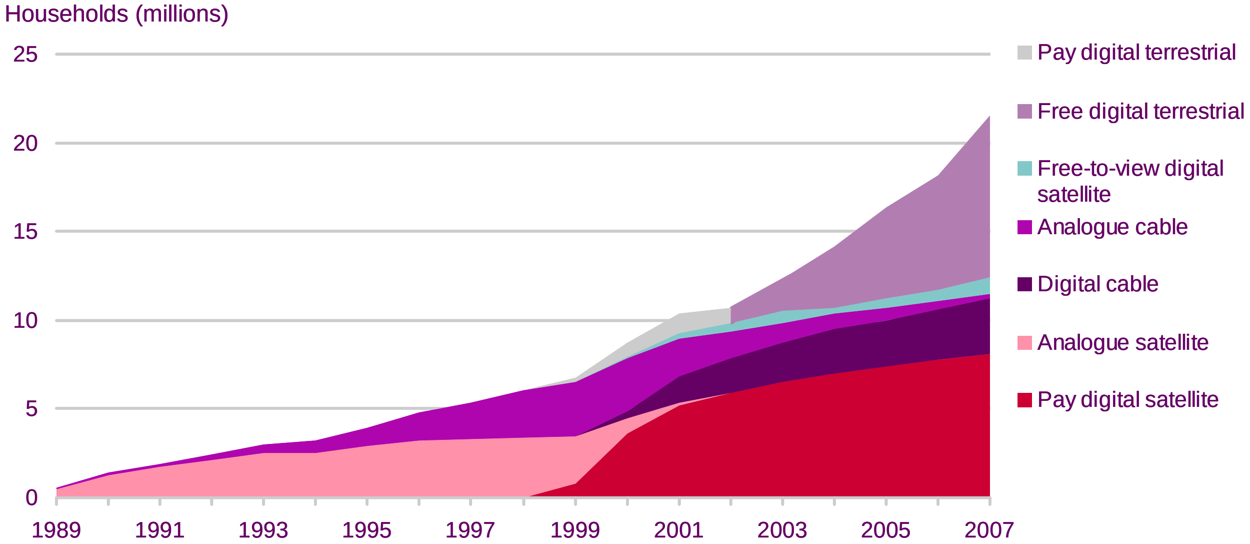
[11] Tiscali quarterly report – http://investors.tiscali.com/tiscali/uploads/press/pressrelease3Q07_ENG.pdf; BT quarterly report published 8 November 2007 – http://www.btplc.com/Sharesandperformance/Quarterlyresults/Quarterlyresults.htm

[12] I.e. households that do not subscribe to any other digital service.

Figure 5 Multi-channel platform penetration (main TV set)



Source: 1989-1996 data from ITC, platform operators and BARB for July of each year; 1997 from Sky and ITC reports; 1998-2006 data from Ofcom estimates, platform operators and GfK research for Q2 of each year

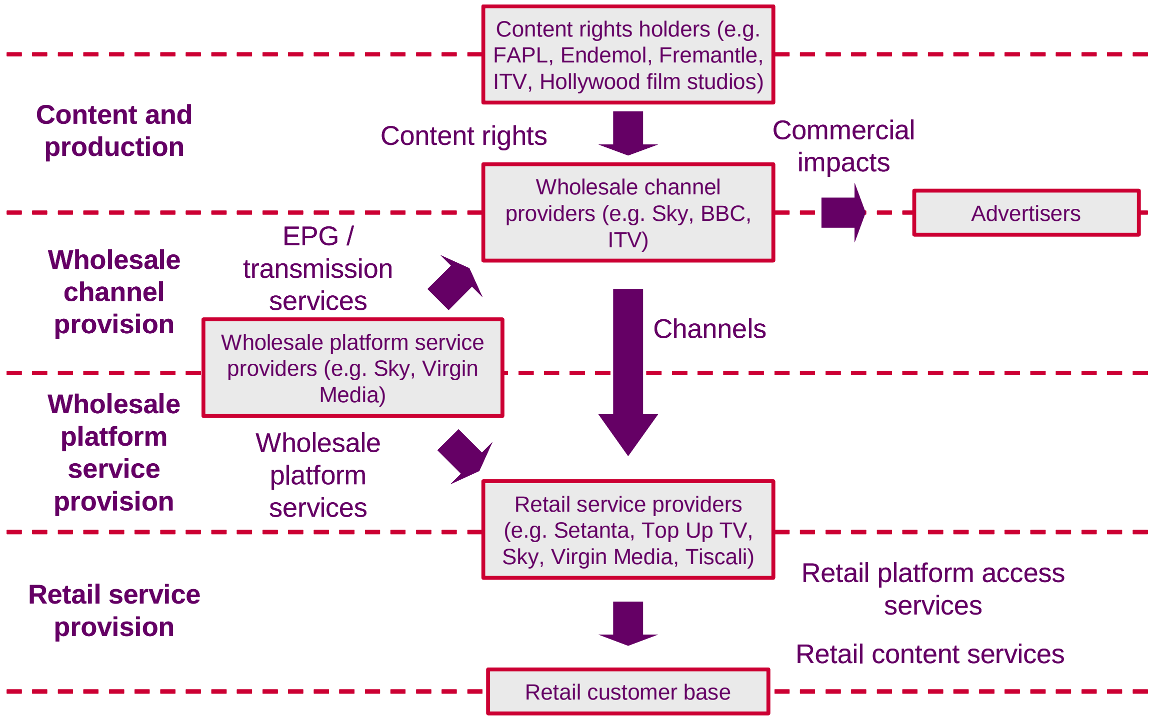
3.15 Just over half of multi-channel TV households (53% at Q3 2007) still pay a subscription for their digital television service, but much of the recent growth in take-up is coming from free-to-air services. Between Q1 2006 and Q1 2007 the number of Freeview households increased by two million, whereas pay TV subscriptions on cable and satellite increased by 0.4 million.

3.16 Ofcom research in Q1 2007 indicated that growth in multi-channel television would continue – of those homes without digital television, 13% said that they intended to obtain a multi-channel service in the next six months.

Structure of the TV value chain

3.17 The supply chain for the UK broadcasting industry consists of four layers as illustrated by the diagram below.

Figure 6 Television broadcasting value chain



Content and production

3.18 Content rights holders include a varied range of entities, from sports organisations and film studios to television production companies – the Football Association Premier League (FAPL) / England and Wales Cricket Board (ECB), Paramount / Universal, Endemol / Fremantle. They sell content rights to wholesale channel providers.

Wholesale channel provision

3.19 The companies that buy the rights – for example UKTV, Sky, Viacom, National Geographic – aggregate content into channels, or create non-linear content for use in on-demand services. They then act as wholesale channel providers, selling their channels or non-linear content to retail service providers.

3.20 In addition, wholesale channel providers sell advertising impacts to companies wishing to advertise their products or services to the end consumer, for example Procter & Gamble, The Coca-Cola Company, First Choice, etc.

Retail service provision

3.21 Retail service providers – such as Sky, Virgin Media, Setanta, Top Up TV and BT Vision – buy channels from wholesale channel providers, and may assemble combinations of channels into retail bundles to be sold to end consumers.

Wholesale platform service provision

3.22 At the same time, retail service providers also require TPS, such as conditional access, in order to be able to offer an encrypted pay TV service.

3.23 Platform providers typically transact with both retailers and wholesale channel providers, with the transaction depending on the type of channel:

- Retailers will generally purchase both a suite of pay channels and the platform services that enable them to broadcast those channels and recover subscriptions from consumers.
- Free-to-air channels, by contrast, purchase platform services directly from platform providers, since for those channels, there is no direct transactional relationship with end consumers.

Vertical integration between levels of the value chain

3.24 In practice, a number of operators in the broadcasting industry are vertically integrated and operate at multiple layers of the supply chain. This means that some of the transactions described above take place notionally within a single company. For example, Sky and Virgin Media are both vertically integrated between wholesale channel provision, platform operation, and retail service provision.

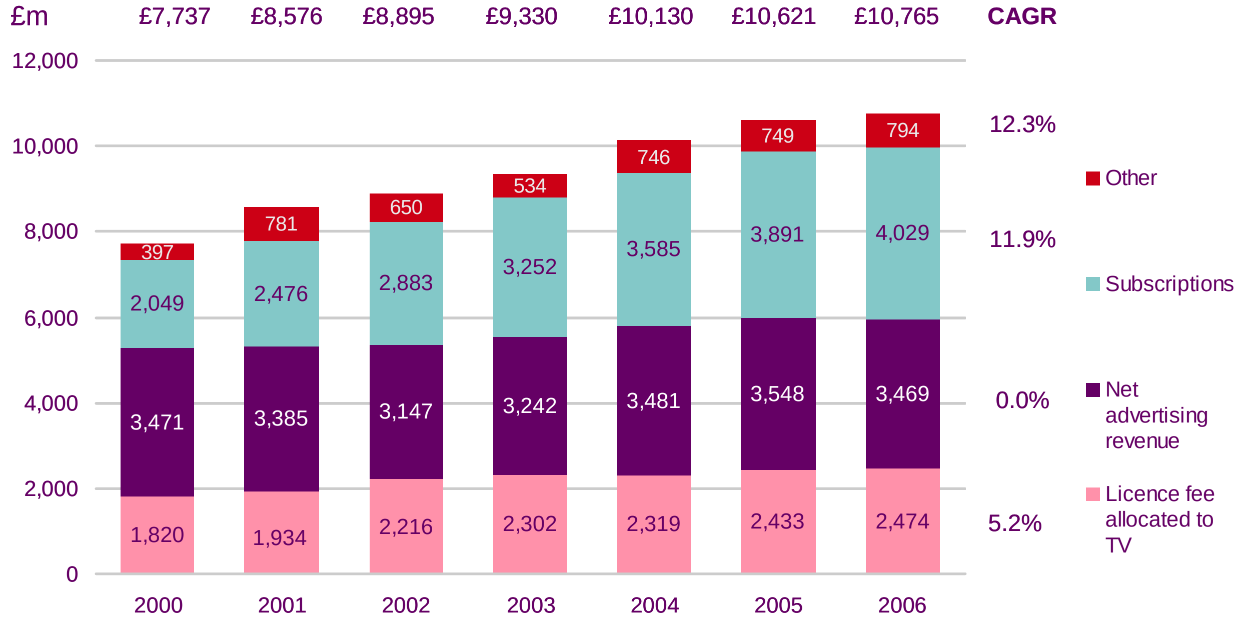
3.25 In the case of Hollywood films, as an example, the real-life manifestation of the generic description above is that Sky buys the rights from Hollywood studios, and assembles films into film channels (Sky Movies Family, Sky Movies Modern Greats, Sky Movies Drama, etc.). It then both retails those channels itself through its Sky Movies Mix, as well as wholesaling the channels to Virgin Media. At the same time, Sky provides wholesale platform services to companies such as Setanta, under the TPS regime described in section 2, as well as providing those services to itself.

Sources and flows of revenue in UK pay TV

3.26 There are three key sources of revenue for the broadcast sector: public funding (the BBC licence fee), advertising revenues and retail service provider revenues from pay TV (subscriptions). Figure 7 below illustrates the increasing importance of pay TV subscription revenue over recent years: in 2000 it accounted for around a quarter (26%) of total revenue and in 2006 for more than a third (38%).

3.27 Since 2004, subscriptions have made up the largest revenue stream within TV broadcasting. In 2006, subscriptions reached just over £4 billion, exceeding the revenue generated by TV advertising (£3.5 billion) and the level of public funding (£2.5 billion).

Figure 7 Total TV industry revenue by sector



Source: Ofcom estimates and broadcasters

Note: net advertising revenue includes both commercial analogue and multi-channel channel revenue; CAGR – Compound Annual Growth Rate

3.28 In the above chart, ‘other revenue’ comes from interactive services, TV shopping, PPV, sponsorship, S4C grants and programme sales; the largest amounts came from sponsorship at £162 million, TV shopping at £159 million and interactive services at £123 million.

3.29 Pay TV is still a relatively small market in revenue terms compared to other communications markets. The fixed retail telecoms market accounted for £38.5 billion and the retail mobile market £13.9 billion in 2006. In revenue terms, pay TV represents about 6% of the total UK communications market.

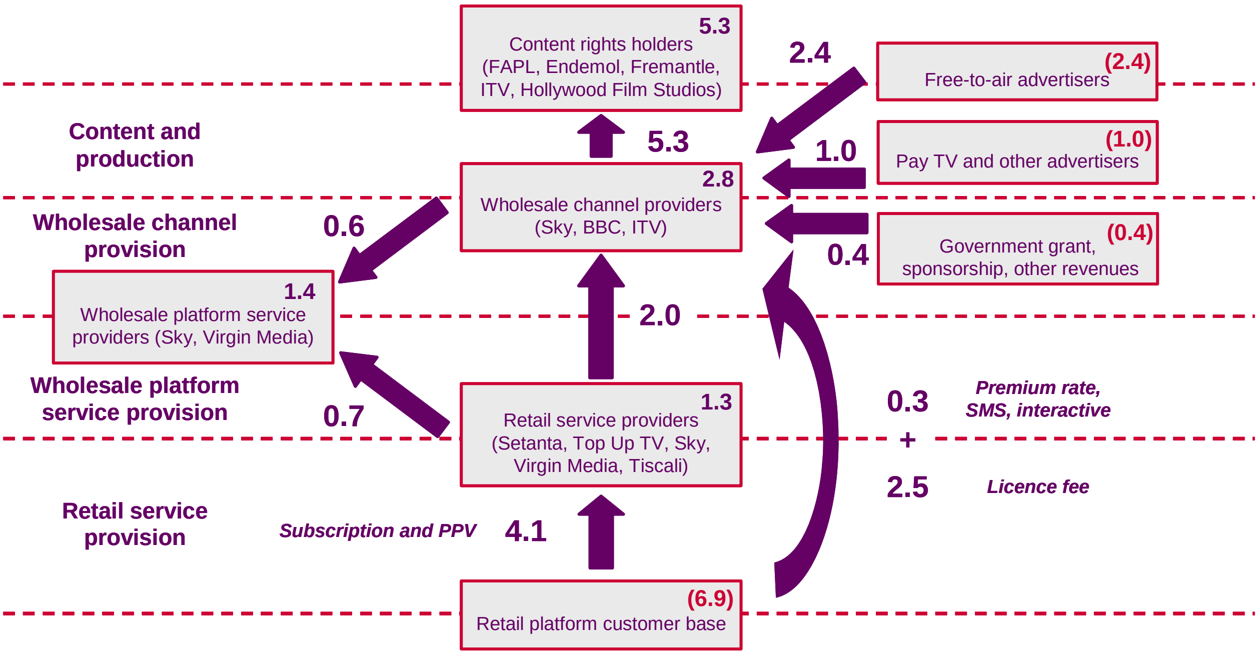
Flow of funds

3.30 We have used various sources of data to estimate the way in which revenues generated by the broadcast industry flow through the value chain. The results of any such analysis should be regarded as indicative rather than definitive, but are nevertheless of interest. The results are summarised in Figure 8, which shows revenue flowing through the value chain, from the retail customer base up to content rights owners. It also shows the revenue retained at different points in the value chain.

3.31 This analysis suggests that a relatively small proportion of total broadcast revenues (£1.4 billion) are retained at the retail level. Most of the revenue generated by the industry flows through either to content rights holders (£5.3 billion), wholesale channel providers (£2.8 billion) or providers of wholesale platform services (£1.4 billion). The analysis also illustrates the two-sided nature of wholesale channel markets, revenue from both viewers and advertisers being combined to pay for content.

3.32 Note that the retail revenues shown here for pay TV include a significant contribution from commercial subscribers (offices, retail outlets, hotels, pubs and clubs) as well as from residential subscribers. Many pubs, for example, purchase a premium sports service from Sky for viewing by their customers. The significance of this commercial revenue stream is illustrated by the fact that over 45,000 commercial premises of various sorts subscribe to Sky services, and pubs and clubs for example pay anything from £89 per month to £2,790 per month for each viewing card, depending on the rateable value of the premises[13].

Figure 8 2006 UK broadcasting sector flow of funds



Source: the figures in the diagram are derived from a combination of publicly available sources, such as annual reports of market players, revenue and cost data provided to Ofcom for the purpose of calculating qualifying revenues together with licence returns and Ofcom data on regulated conditional access and EPG charges.

Note: all figures in GBP billions. Figures inside boxes represent the net flows in or out of each area of the value chain.

Recent and current innovation in pay TV

3.33 A variety of technological developments have contributed to innovation in pay TV, including the emergence of new distribution technologies, the digitisation of television signals, the emergence of new video compression techniques, and the falling cost of digital processing and storage. These have enabled new means of content distribution, as well as a variety of new value-added services.

[13] Information from Sky's website – correct at 4 December 2007.

Innovation in content distribution

Innovation on DTT

3.34 A number of platform and service innovations have been introduced on DTT since its launch in 1998, in order to improve service coverage, the quality of reception, and the amount of content which can be delivered.

3.35 ONdigital launched in 1998 using a 64QAM modulation scheme, whose high spectral efficiency supported a large number of channels, but which also provided poor reception and coverage. Reception and coverage were further compromised by restrictions on the power used by DTT transmitters, which were imposed in order to minimise the interference to existing analogue broadcasts.

3.36 When Freeview launched in 2002 it used a more robust 16QAM modulation scheme, as well as increased transmitter power. This provided better reception, but fewer channels. Various techniques have been considered since for increasing the content which can be delivered via DTT, including:

- Improved compression algorithms (MPEG4, DVB-T2)
- The use (e.g. by Top Up TV) of overnight catch-up, in which additional content is transmitted and saved for later viewing on a set-top box hard disk.
- The use (e.g. by BT Vision) of a hybrid DTT / IPTV set-top box which allows consumers to watch channels broadcast using DTT as well as retrieve Video on Demand (VoD) content from BT servers using a broadband connection.

IPTV and Internet TV

3.37 As noted above, BT Vision provides a hybrid DTT / IPTV broadcast service. Tiscali (formerly Homechoice) provides a pure IPTV service, in which TV channels are broadcast over a broadband network. Additional VoD content is also available.

3.38 While BT and Tiscali use broadband connections to distribute services from their own "walled garden" of content, other operators are using the "open" internet to distribute their video services. Internet download services are now offered by the BBC, Sky, Channel 4 and Five which allow consumers to download both free and pay content to their PCs. More recently, companies such as Joost and ITV have exploited the increasing speed of broadband connections to stream content over the internet, thereby avoiding the delay associated with downloading.

3.39 Whilst such services could feasibly begin to compete with the traditional distribution platform, picture quality, end to end network reliability and capacity limitations of broadband connections may reduce their impact. The delivery of HDTV over broadband connections is particularly slow with current-generation broadband.

Mobile TV

3.40 A number of technologies have been adopted to enable mobile TV services in the UK. BT introduced a broadcast mobile TV service in 2006 which used the DAB radio platform to delivery a number of channels to mobile handsets. This service was sold on a wholesale basis to Virgin Mobile but has since been withdrawn. Other broadcast technologies such as DVB-H and MediaFlo have been trialled in the UK but no commercial deployments have been announced to date.

3.41 3G (UMTS) mobile networks continue to be used to deliver both live TV and download services. As current mobile networks are primarily “one to one” in nature delivery of “one to many” broadcast TV channels can become inefficient when take up increases. Whilst current demand for TV services on these networks can be accommodated, if mobile TV achieves mass market appeal, network dimensioning and costs may become problematic. Current service providers include Sky Mobile TV available over the Orange, T-Mobile and Vodafone networks.

Video on Demand (VoD)

3.42 While Sky and Top Up TV offer a “virtual” Video on Demand service by combining broadcast and DVR functionality, the architecture of the cable network enables “true” Video on Demand (VoD) services to be offered to consumers. Video content is streamed from servers in the cable head-end directly to the user’s set-top box on a “one to one” basis. The advantage of this approach is that the range of content available to the consumer is not limited to the storage capacity of their set-top box, in fact the cable set-top box does not require a hard disk at all. Similar services can be offered using DSL-based broadband networks, and both Tiscali and BT Vision now offer on-demand PPV programmes and films.

3.43 Sky also offers a nVoD (near Video on Demand) service through the Sky Box Office channels. These PPV channels, which were first launched in 1997, offer subscribers a number of channels playing the same movie at the same time with staggered start times; at any one time, subscribers have a choice of around 12 different movies.

High definition TV

3.44 High definition television (HDTV) services were introduced by Virgin Media in 2005 and Sky in 2006. Whilst HDTV technologies have been available for several years they have become commercially viable more recently due to improvements in video compression algorithms and reductions in the cost of the processors and memory used in set-top boxes to handle these algorithms. Reductions in the retail price of “HD Ready” flat screens displays have also driven consumer take up and increased the demand for HD programming.

3.45 As of Q2 2007, HD services had attracted nearly 450,000 subscribers, of which two-thirds take Sky’s service while Virgin Media accounts for the remainder (Ofcom CMR 2007).

Innovation in value-added services

Electronic programme guides and interactive TV

3.46 The ability to transmit digital data alongside digitised video and audio and the inclusion of advanced microprocessors in set-top boxes has allowed platform operators to provide advanced Electronic Programme Guides (EPGs) and interactive services.

3.47 EPGs provide consumers with increased amounts of information on what channels and programmes are available and make navigating between channels and services easier. Interactive services provide broadcasters an opportunity to enhance their TV and Radio services with additional information. Both Sky and Virgin Media also provide a return path from the consumers set-top box which allows increased interaction and revenue generating opportunities.

3.48 These interactive TV technologies are far more flexible than previous enhanced TV services such as Teletext. This flexibility allows a wide range of service to be offered without major changes having to be made to the platform. As a result increased levels of service innovation can be achieved. For example, the technologies used on the Sky satellite platform have allowed interactive services as diverse as TV banking (which is no longer available), interactive advertising and video games to be developed.

Digital Video Recorders

3.49 As well as enabling EPGs and interactive services, an additional benefit of transmitting content in a digital form is that the digitised video and audio can readily be recorded and stored on digital storage devices, such as computer hard drives. This feature of digital TV allowed Sky to introduce its Sky+ Digital Video Recorder (DVR) in 2001. The inclusion of a hard drive in its set-top box and integration with the EPG allows Sky customers to select programmes from the EPG which will be recorded when they are out, pause live TV and watch one programme while recording another. Virgin Media offers similar functionality with its “V+” DVR, and an increasing number of DVRs are now available for use on DTT.

3.50 The ability to “time shift” TV has proven popular, and penetration has increased in recent years. Our research suggests that in 2006 around 15% of households had access to Sky+, V+ or a Freeview DVR, and that those consumers who do have access to a DVR attach a very high value to it. At Q3 2007, 2.7 million Sky subscribers had Sky+ and 190,000 Virgin Media subscribers had V+, compared with 1.4 million and 34,000 respectively in the first half of 2006.

3.51 Since the introduction of Sky+ in 2001, Sky has introduced some more advanced features such as the ability to set up recordings remotely using a mobile phone. More recently both Sky and Top Up TV have used their control over their DVR set-top boxes to provide on demand services using “push to DVR” technology. TV programmes are broadcast using standard transmission technologies (usually overnight) and automatically recorded by the consumer’s DVR. The programmes are then available to be viewed by the consumer at a time that suits them.

International comparisons

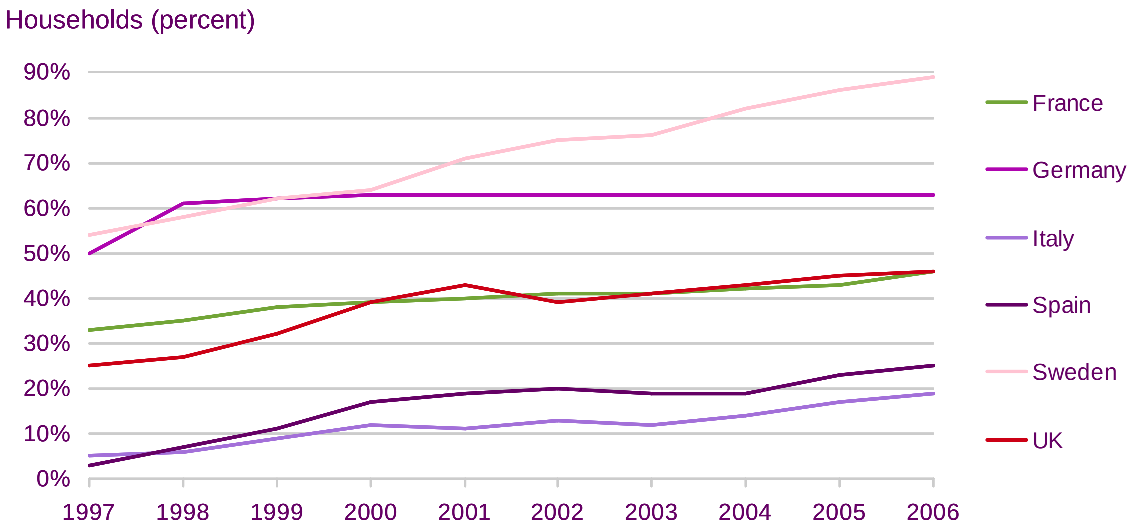
3.52 We have reviewed a number of international markets in order to provide benchmarks against which pay TV in the UK can be assessed. We draw on this work in various places through this document. We summarise here some of the headline similarities and differences between these countries and the UK. A more detailed report, produced by Spectrum Value Partners, is attached at Annex 9.

3.53 Figure 9 and Figure 10 below are charts showing the penetration of pay TV and digital TV in various European markets. These show that:

- Penetration of digital TV is higher in the UK than in any of the comparator countries.

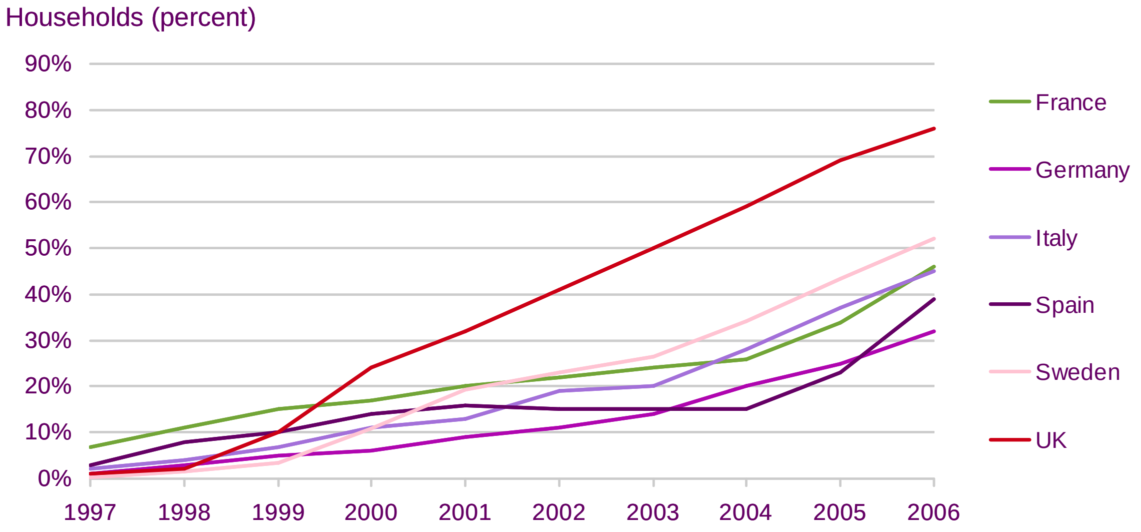
- Penetration of pay TV is higher in the UK than Italy and Spain, and broadly similar to France. It is however outstripped by Germany and Sweden, where cable is very widespread. In both countries, cable tends to follow a utility-style model, where it is available almost universally, and the price of access is often included in property rental rates.

Figure 9 Penetration of pay TV in major European markets (percent of households)



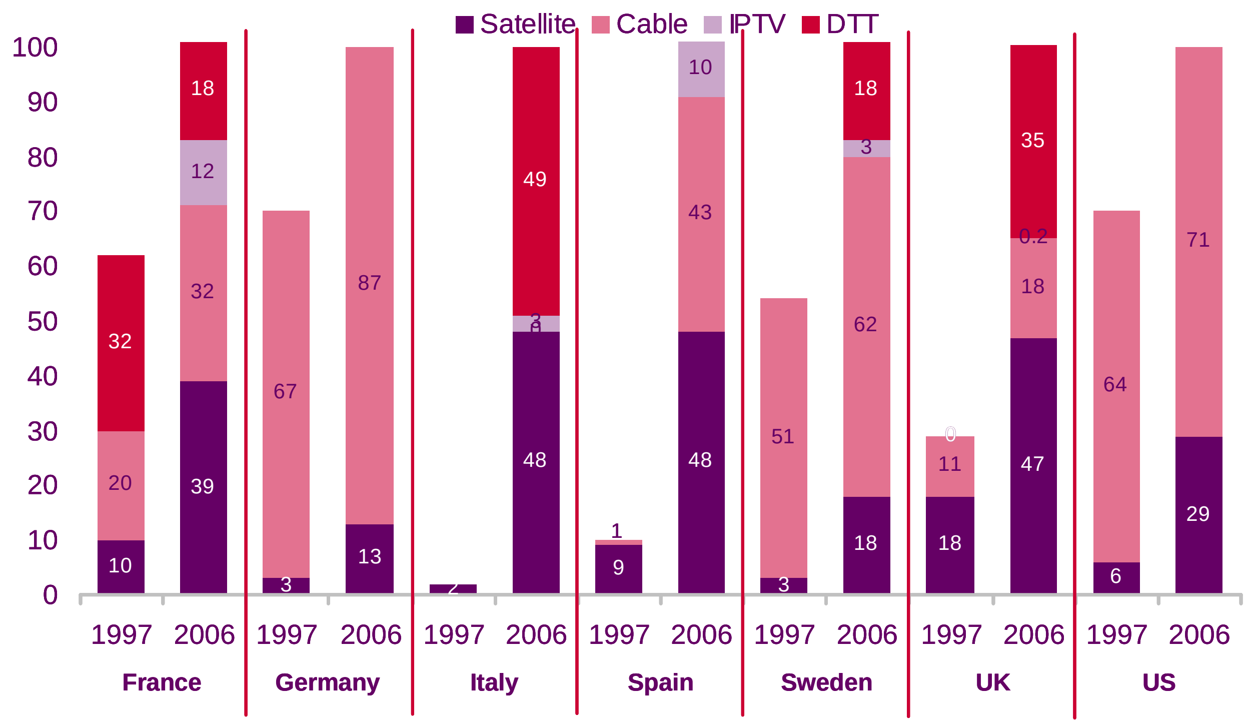
Source: Spectrum Value Partners / Screen Digest

Figure 10 Penetration of digital TV in major European markets (percent of households)



Source: Spectrum Value Partners / Screen Digest

Figure 11 Relative growth of multi-channel distribution technologies in major European markets and the US (index, 2006=100)



Source: Spectrum Value Partners / Screen Digest, Ofcom

3.54 Figure 11 shows the explosion of multi-channel TV in both Spain and Italy in the last 10 years, and to a lesser extent in the other countries. The prevalence of cable in the US, Sweden and Germany is clear, although cable's position has been eroded by satellite in the US since the 1992 programme access rules provided third-party access to vertically integrated cable operators' programming.

3.55 In the UK, satellite has a strong position in terms of numbers of pay subscribers relative to other distribution technologies, e.g. cable, IPTV or DTT. This is not always the case in other markets. In Germany, Sweden and the US, cable was established much earlier than satellite, and its market position still reflects this first-mover advantage. Cable in Germany and Sweden show household penetration of 60% and 55%, respectively. The equivalent figure in the US is almost 70%.

3.56 Several countries illustrate the importance of premium football as a driver of retail services, although clearly there may be other factors at play in each case.

- In France, Orange has grown from just over parity in terms of subscriber numbers with its next competitor in IPTV and now has double the number of subscribers of its rivals. It is the only IPTV operator to show the Foot+ package, which includes live football matches.

- In Germany, premium content channels (including live German football) have been the main driver of satellite growth, even though overall penetration of satellite is still low. In 2006, following Premiere's loss of the football rights to Arena, Premiere started to experience a loss of subscribers.

- In Italy, early DTT take-up from 2004 was driven by it being the first free multi-channel offering. In 2005 however, with the launch of PPV DTT services offering premium football by both La 7 and Mediaset, take-up increased further.

3.57 Another similarity between the UK and other major European markets is the existence of a single satellite platform operator following the merger of its two predecessors. The UK merger in 1990 of Sky Television and British Satellite Broadcasting has been mirrored by more recent mergers of satellite operators in France, Italy and Spain. These mergers were permitted on the basis of fairly stringent commitments from the merged company all of which included some focus on content; CanalSat in France is obliged to offer seven channels to all pay TV distributors; Sky Italia may not conclude exclusive content deals; Digital Plus in Spain has to make available one of its premium channels to others. This is discussed further in Annex 16.

3.58 In Scandinavia and the US, there remain two satellite platform operators. In both cases they appear not to compete head-to-head. In the US, DirecTV operates at the premium end of the market with additional niche and premium content, whereas Echostar subsidises equipment heavily and offers lower-priced packages in order to attract less affluent subscribers – its ARPU is only three quarters that of DirecTV. In Scandinavia this situation seems to be mirrored in Canal Digital and Viasat, where Canal Digital offers premium sports and films and Viasat's packages have second-run films and less sport. This is reflected in Viasat's price for its top tier which is 25% cheaper than Canal Digital's equivalent.

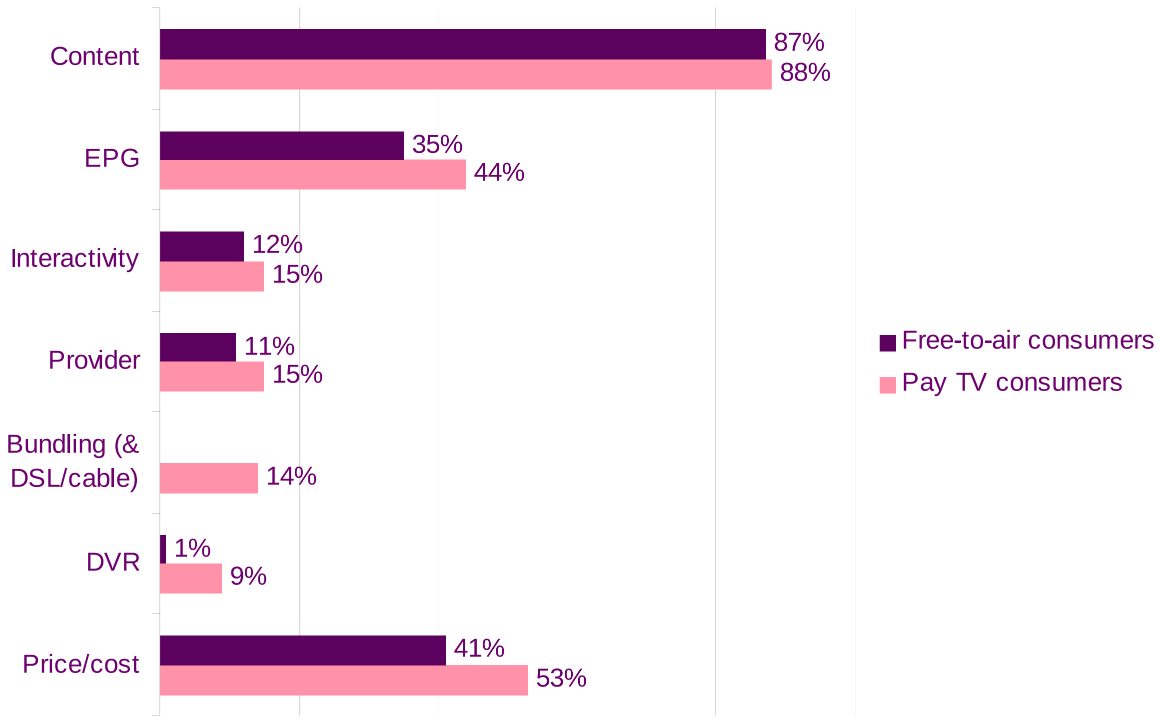
3.59 In the case of all the European markets studied, the value of premium football rights has increased considerably over time – in all cases by at least a factor of two since the late 1990s, and in all cases apart from Germany by a considerably greater factor. In contrast, the value of film rights has been somewhat less buoyant.

3.60 The way which football rights are sold does however vary by country. For example, in both Italy and Spain clubs sell their rights individually, rather than following the collective selling model adopted in the UK, although a law was passed in Italy in 2007 mandating a return to collective selling. Individual selling has seen big clubs receiving considerably more revenue from TV than smaller clubs. In Spain, individual selling has resulted in a particularly complex situation, with multiple operators (primarily Sogecable and Mediapro) owning the rights for different clubs' games.

The role of content in pay TV

3.61 Content is the element of consumers' TV service that is by far most often described as 'must have', both for pay TV and free-to-air consumers. This is illustrated in Figure 12 below.

Figure 12 Proportion of consumers who cite elements of their TV as 'must have'

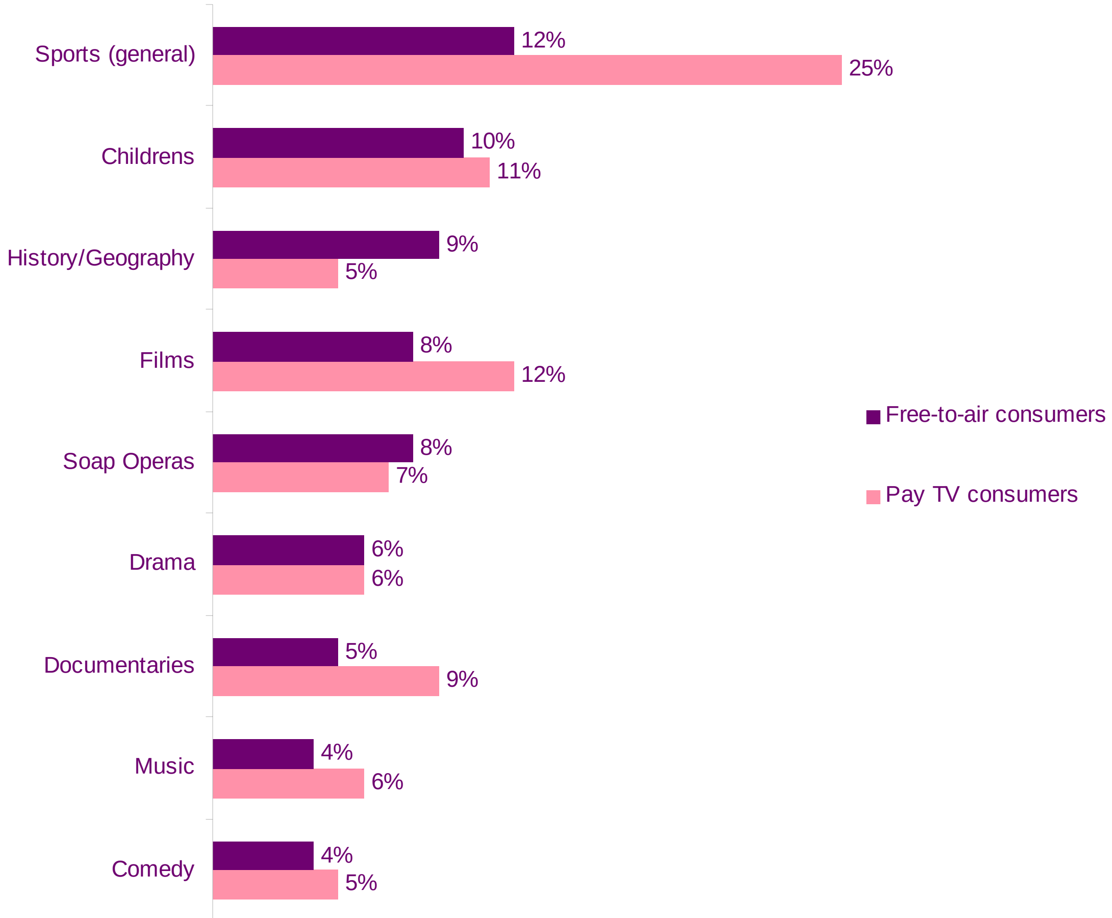


Base: All multi-channel TV household decision-makers (670 free-to-air, 1,338 pay TV)

Source: Ofcom pay TV research, phase one

3.62 Sport is by some distance the most important genre to pay TV consumers and one of the most important for free-to-air consumers; pay TV consumers are twice as likely to mention sport as free-to-air consumers. For pay TV consumers, films and children's were the next most mentioned important genres.

Figure 13 **Spontaneous mentions of channel genre among consumers who say content is 'must have'**



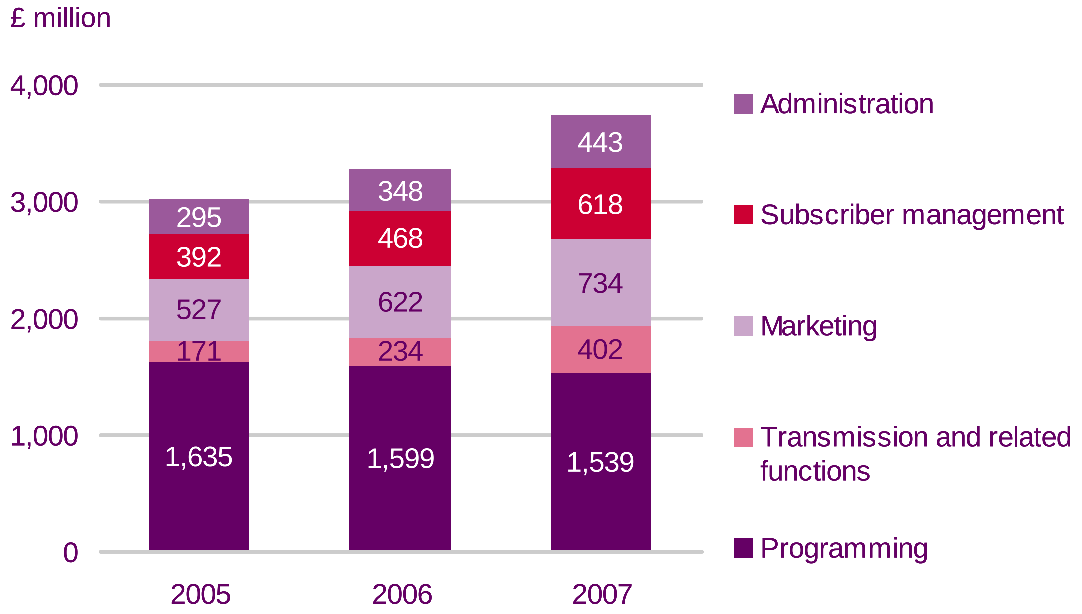
Base: All MCTV household decision-makers for whom content is key (free-to-air 405, pay TV 947)

Source: Ofcom pay TV research phase one

3.63 More on viewers' preferences in relation to sport and films is included in our annex on consumer research, at Annex 14.

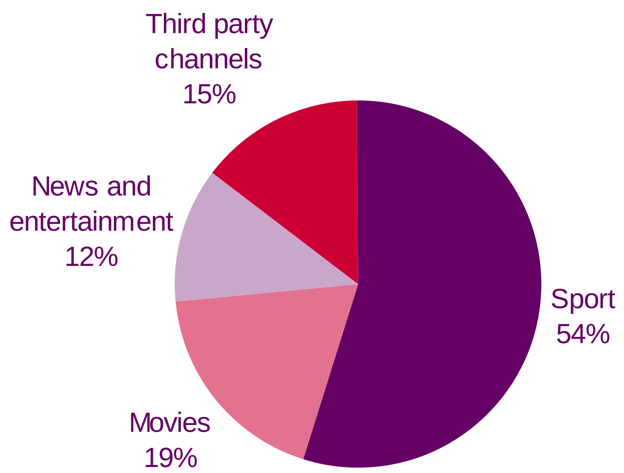
3.64 The importance of such content is also illustrated by the breakdown of Sky's expenditure on different categories of content, which is summarised below using figures taken from Sky's annual report for 2007. Programming costs represented 41% of all operating expenses in 2007. Of that, sport and movies content were the biggest two components, at 55% and 19% respectively.

Figure 14 **Breakdown of Sky operating costs by type**



Source: Sky annual report 2007 http://library.corporate-ir.net/library/10/104/104016/items/258443/AR07.pdf

Figure 15 **2007 breakdown of Sky programming costs by type**

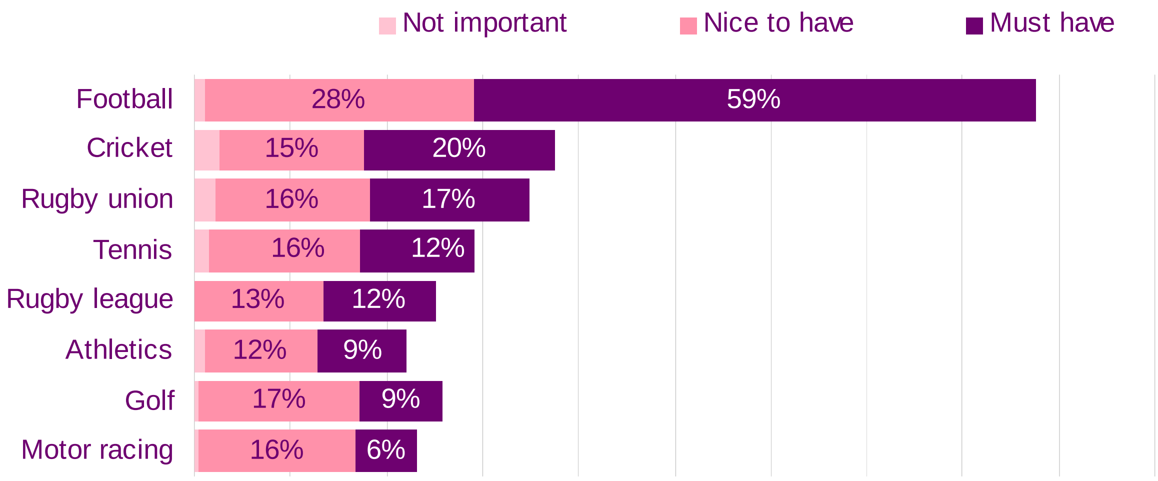


Source: Sky annual report 2007 http://library.corporate-ir.net/library/10/104/104016/items/258443/AR07.pdf

Premium sport

3.65 The sports rights that are relevant to the UK market are summarised at Annex 10. The most significant are those related to live viewing of Football Association Premier League (FAPL) matches. The chart below shows the level of interest in specific sports, among those people who value specific sports ahead of a range of sports.

Figure 16 Relative importance of sports that are regularly watched on TV



Base: All regular sports viewers who watch a specific sport or sports (190)

Source: Ofcom pay TV research phase 3

Note: caution – small base sizes for all sports except football

3.66 The acquisition of live top division UK football rights by Sky for the period from 1992 to 1997 is widely seen as having been a key driver of subscriptions, a fact that is reflected in the increased value of these rights over the years. The table below summarises the value of rights to live league matches from the top football division.

Figure 17 1983-2007 summary of sale of live UK top league football rights

Start of rights period	Contract duration (years)	Number of matches	Broadcaster	Rights fee (£ million)		
				Total	Per season	Per match
1983	2	10	BBC/ITV	5.2	2.6	0.26
1985	0.5	6	BBC	1.3	2.6	0.43
1986	2	14	BBC/ITV	6.2	3.1	0.22
1988	4	18	ITV	44	11	0.61
1992	5	60	Sky	305	61	1.01
1997	4	60	Sky	670	168	2.79
2001	3	106	Sky	1,110	370	3.49
2004	3	138	Sky	1,023	341	2.47
2007	3	92	Sky	1,314	438	4.76
	3	46	Setanta	392	131	2.84

Source: see Annex 10 to this document

Note: in 2001 Sky purchased PPV rights for £60 million. This figure does not include PPV rights

3.67 Sky exploits its football rights via a set of premium sports channels. It broadcasts Sky Sports 1, 2 and 3 and Sky Sports Xtra. The acquisition of rights by Setanta Sports for the three seasons from 2007/2008 to 2009/10 follows a set of commitments given by the FAPL to the European Commission, which included a commitment not to sell all the live rights to a single purchaser. In the auction that followed, six packages of matches were made available, of which Setanta purchased two.

3.68 The links between pay TV and football are further illustrated by:

- FAPL rights fees represent a significant proportion of Sky's operational costs (12%), and make up a significant proportion of the revenues received by Premier League football clubs – 42% of football revenue in 2005 / 2006[14].

- There have been various attempts to establish ownership links between Premier league clubs and pay TV operators. Sky has at various points owned stakes in Manchester United, Chelsea, Sunderland, Manchester City and Leeds United. NTL also had various levels of relationship with several clubs, including Aston Villa, Leicester City, Glasgow Rangers and Celtic.

Premium films

3.69 The structure of the various markets for movie products is summarised at Annex 12. Pay TV subscriptions are the second most important retail market for movies, generating an estimated £673m in retail revenues. This is significantly less than the revenue generated by DVDs (£1,655m) but slightly ahead of the revenue generated by cinemas (£649m). PPV VoD revenues are currently less significant (£84m).

3.70 The key movie rights which are relevant to the pay TV market are the subscription rights for the six main Hollywood studios in the viewing window, which starts 12 months after theatrical release. The studios are Buena Vista (Walt Disney), Paramount, Sony, Twentieth Century Fox, Universal and Warner Bros.

3.71 Sky currently has exclusive rights to the first-run subscription window for all six. It exploits these rights via a set of premium movie channels, each covering a specific genre (e.g. Sky Premiere, Sky Comedy, Sky Action, Sky Family).

General news and entertainment

3.72 A wide variety of other programming is available on pay TV, often referred to collectively as 'basic content'. It is not possible to identify any specific element of basic content which is critical to the growth of pay TV, but it is possible to identify several important broadcasting groups:

- The BBC and commercial PSBs are still the most watched channels, even on pay platforms.

[14] Figure taken from Annex 11 on sports rights, page 23. Includes international rights.

- Sky's basic channels, which include Sky One, Two and Three. Material on Sky One includes such programming as the Simpsons, Lost and 24.

- Virgin Media TV (previously Flextech), which assembles a number of channels including Living and Trouble.

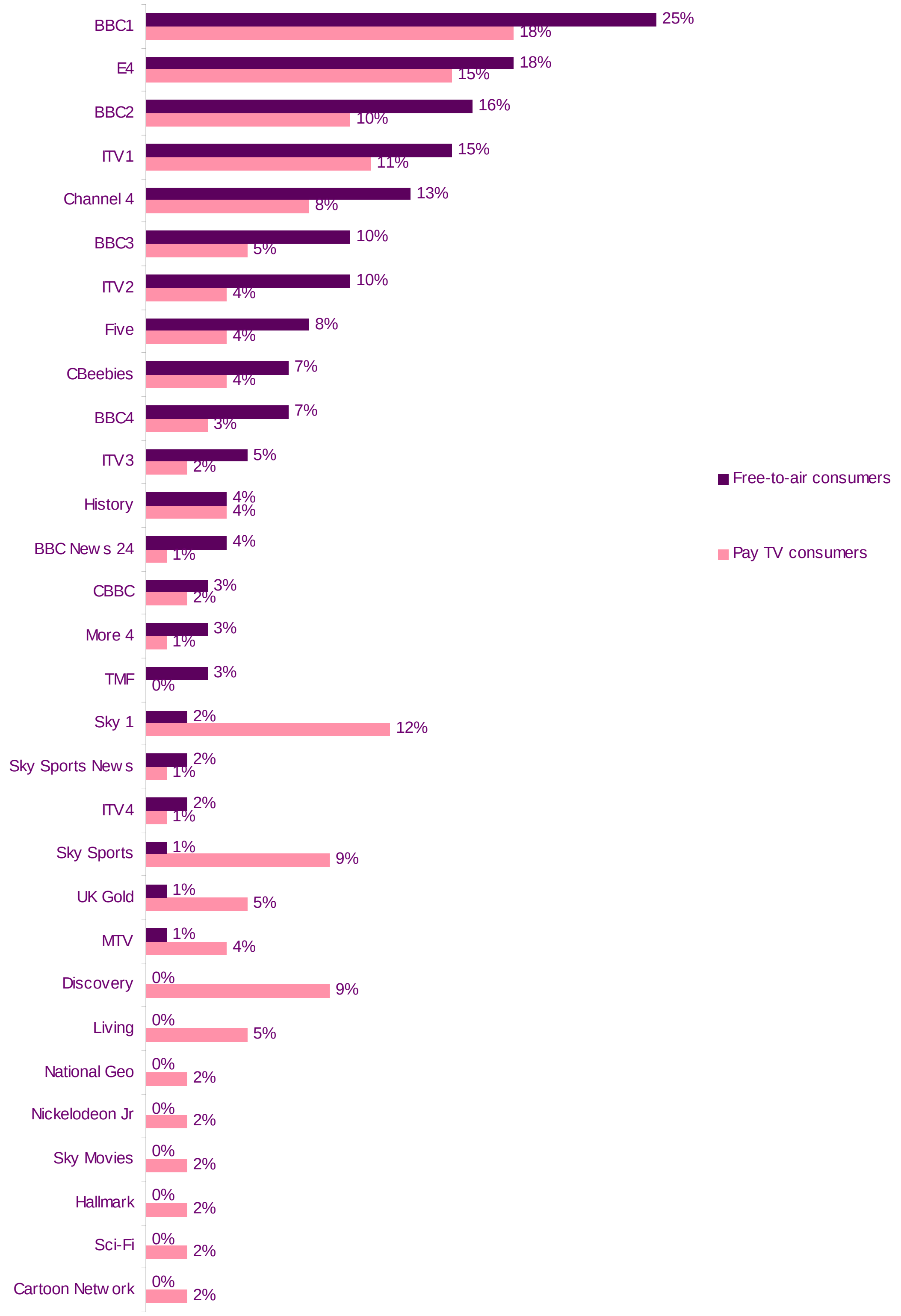
- UKTV, which is a joint venture between BBC Worldwide and Virgin Media TV. UKTV has access to the BBC back catalogue.

- There are a number of other significant families of channels, including Viacom's MTV and other music channels, Discovery Channel's set of channels, and National Geographic's offering.

3.73 The chart below shows that there is a relatively small number of basic channels which more than 5% of consumers with specific channel preferences see as important – only ten such channels for pay TV consumers. Among those ten, apart from PSB channels, Sky One and Discovery are particularly popular[15]. Beyond this small number of popular channels, there are many channels which are only seen as 'key' by a small number of consumers.

[15] This stage of the research was conducted while Sky One was still available to Virgin Media's customers.

Figure 18 Spontaneous channel mentions among those who say content is 'must have'



Base: All multi-channel TV household decision-makers for whom content is key (free-to-air 405, pay TV 947)

Source: Ofcom pay TV research phase one; NB mentions of 'ITV' reported with 'ITV1'

Consultation questions

2. Does our overview of the pay TV market fairly reflect the key developments within this market?

3. Do you agree with our analytic framework for the pay TV value chain? If not, why not?

4. Are there any additional comments or evidence which you wish to provide?

Section 4

The consumer experience of pay TV

Introduction

4.1 We identified in chapter 2 the following criteria against which to assess whether the pay TV market is functioning well for consumers:

- **Choice of platform and content:** a market that enables a broad range of content to be generated and meets the demands of consumers in terms of how they choose to view.

- **Innovation in platform services:** a market that provides the incentives to innovate in new services to the benefit of consumers.

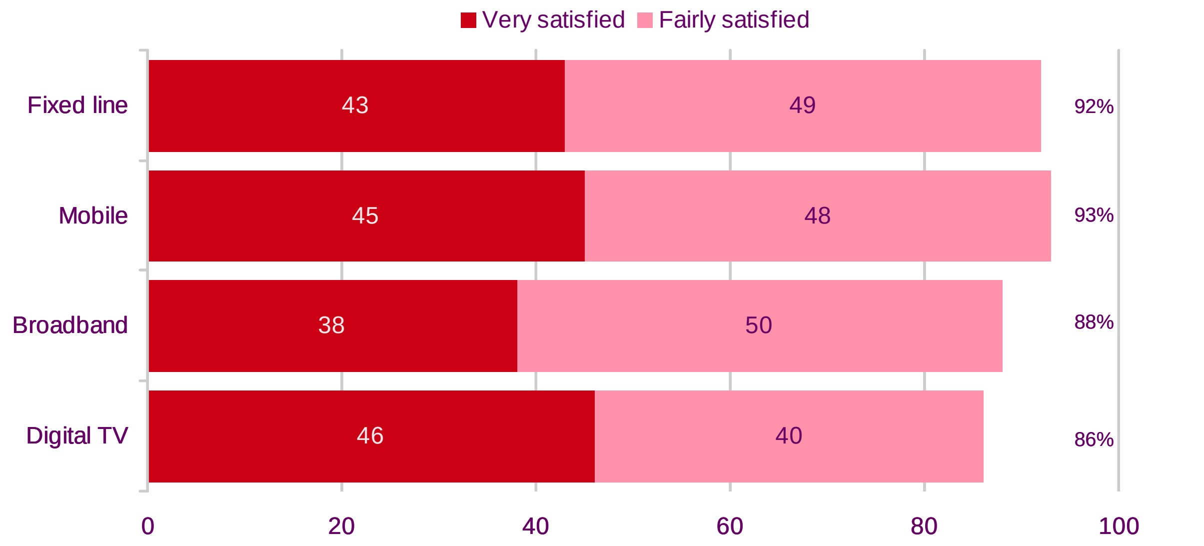
- **Pay TV services priced competitively and efficiently:** prices that give consumers good value and allow efficient producers to earn a reasonable return on their investment.

4.2 In the previous chapter we described the historical context of the market. In this chapter we set out our initial assessment as to whether the market has been serving consumers well by describing the consumer experience in relation to each of the factors set out above. First, however, we look at overall consumer satisfaction levels, as expressed by consumers in Ofcom market research.

Consumer satisfaction levels

4.3 We find that 46% of existing consumers are very satisfied with their digital TV service, and a further 40% are fairly satisfied. As illustrated below, these satisfaction levels are broadly in line with broadband and lower than in fixed-line and mobile markets.

Figure 19 Overall satisfaction with communications services

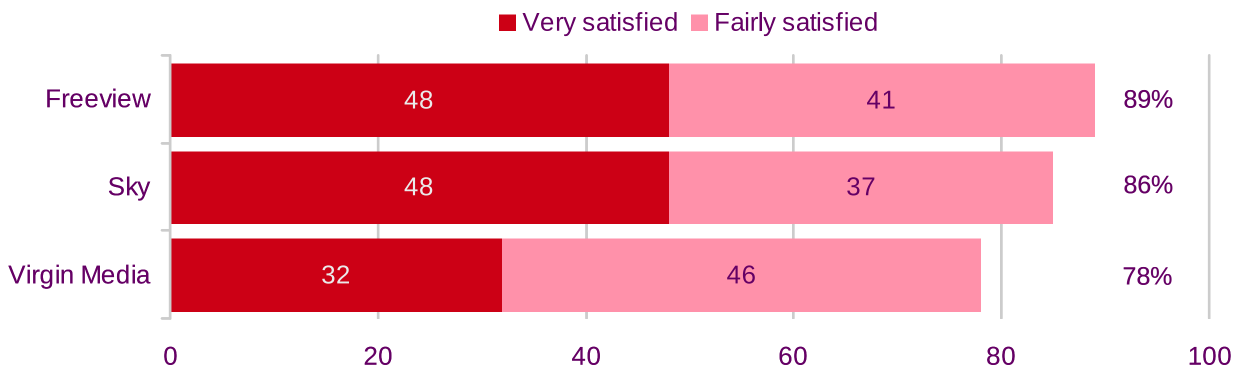


Base: All adults 15+ with fixed line (Q2 2007, 1,329), mobile (Q2 2007, 1,273), broadband (Q1 2007, 727), Digital TV (Q1 2007, 1,211)

Source: Ofcom Communications Tracking Survey

4.4 Satisfaction levels with Freeview and with Sky's pay TV service are fairly similar, in that 48% of consumers are very satisfied, whilst a further 41% of Freeview households and 37% of Sky households say they are fairly satisfied. Satisfaction levels are lower for Virgin Media subscribers, 32% of consumers stating that they are very satisfied and 46% fairly satisfied.

Figure 20 Satisfaction with multi-channel TV services[16]



Base: All adults 15+ with MCTV who expressed an opinion on their service, Q2 2007: Freeview 449, Sky 527, Virgin Media 206

Source: Ofcom Communications Tracking Survey

4.5 These satisfaction levels of course only relate to those consumers currently purchasing pay TV services. There may be certain types of consumers who are not well served by pay TV in the sense that the pricing structure may serve to exclude them from the market. Some evidence for this can be derived from consumer research: GfK research in Q2 2006 showed that the top two reasons for consumers choosing Freeview were 'price / cheaper to get started / value for money' and 'wanted more channels but no subscription', with 45% and 29% respectively (respondents could cite multiple reasons)[17]. We do not yet have detailed data on consumers' demand elasticity, which would allow us to estimate how many consumers are excluded from the pay TV market by current pricing structures.

4.6 One in five consumers does not have a digital TV service and a significant minority of consumers (13%) state that they are unlikely to get a digital TV service in the next 12 months. This suggests there are a minority of analogue consumers who are likely to have no interest in the multi-channel services provided by pay TV, regardless of price. The figure below summarises the reasons given by those consumers who do

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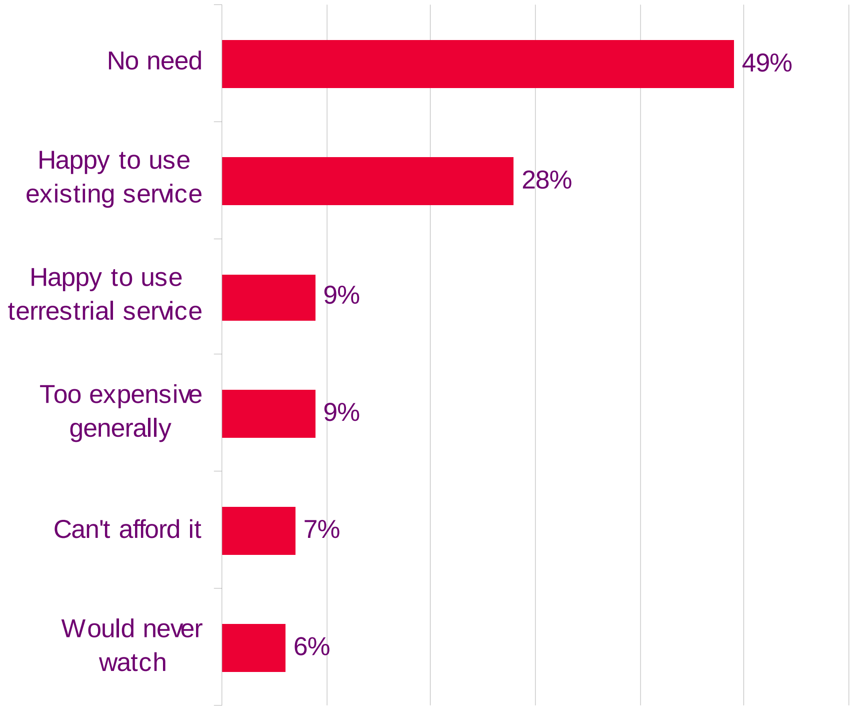
[16] Ofcom's Communications Tracker asks respondents how satisfied they are with their main television provider. It should also be noted that the results are taken from a survey run in Q2 2007, shortly after Virgin Media stopped carrying Sky's basic channels.

[17] Additionally, a survey provided to us by Sky indicates that 56% of analogue terrestrial customers cited "cost of subscription" as a reason for not taking pay TV.

not intend to switch to any form of digital TV. Only 16% of these consumers state that digital TV is either too expensive or that they cannot afford it.

Figure 21 Reasons for not intending to switch to digital TV



Base: All without digital TV, who do not intend to switch in next twelve months (313)

Source: Ofcom Residential Tracking Survey Q1 2007

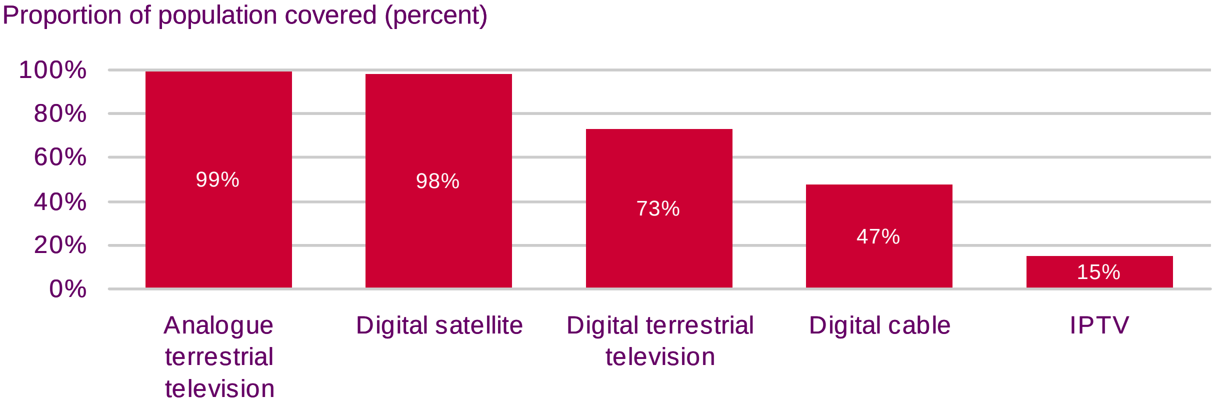
4.7 Overall, evidence on consumer satisfaction levels is often hard to interpret, first, as it is difficult to establish benchmark levels of satisfaction, and secondly, because it obviously reflects the fact that those consumers who are able to express a view are those who have voluntarily chosen to pay for the service. For the latter reason, it is hard to infer conclusions on the effectiveness of competition within the market from satisfaction measures alone.

Choice of platform and content

Platform choice

4.8 Broadcast platforms based on a variety of distribution technologies are available in the UK: analogue terrestrial television, digital terrestrial television, satellite, cable and IPTV. The degree of choice available to individual consumers does however vary geographically, as illustrated in Figure 22 below.

Figure 22 UK coverage of broadcast distribution technologies: 2007[18]



Source: The UK Communications Market 2007, Ofcom

4.9 This figure illustrates that:

- Digital cable, which has historically been the main alternative to digital satellite for pay TV consumers, is available to only 47% of the population.
- Digital terrestrial television is currently available to 73% of the UK population. This coverage is set to increase with digital switchover. By the time of full switchover, the availability of DTT is expected to match analogue coverage.
- Tiscali's IPTV service is available to only 15% of the population. Availability of BT Vision's IPTV service is higher, following BT's broadband coverage, but only offers a non-linear service.

4.10 A variety of broadcasters and other content owners make content available over the internet. Broadband coverage in the UK is 99.6%, so this content is potentially available to most consumers. However, the quality of content delivered by this means is likely to be poor, due to the limited bandwidth and high levels of contention associated with current generation broadband services. We do not therefore regard such services as currently providing a credible alternative for pay TV consumers.

4.11 The table below compares the availability of broadcast platforms based on different distribution technologies in the UK to five other countries. Availability in the UK compares fairly well in terms of the total number of options available. There are however several countries with higher cable coverage than the UK, including the US, where coverage is near-universal, and Germany, where coverage is above 60%.

[18] Analogue cable is available to a further 3% of the population, taking total cable coverage up to 50%.

Figure 23 Availability of distribution technologies by country 2007

	UK	USA	Germany	France	Italy	Spain
ATT	●	◑	◑	●	●	●
Free DTT	◕	◑	◕ [1]	●	◕	●
Pay DTT	◕	○	○	●	◕	○ [2]
Free satellite	●	●	●	◑	◑	○
Pay satellite	●	●	●	●	●	●
Cable	◑	●	◕	◑	○	◕
IPTV	◔	◔	◔	◑	◑	◑
Largest TV platform Proportion of homes (%)	DSat 34%	D/ACab 29%	ACab 55%	ATT 35%	ATT 48%	ATT 47%

Key	○	Not available	●	Near-universally available

Source: Spectrum Value Partners 2007 and Ofcom research

Note: 1 Although FTA DTT has made rapid progress in Germany, it may run into difficulties regarding the state's subsidisation of private channel's transmission costs. 2 A pay DTT platform was launched in 2000 but collapsed in 2004 due to debts from the acquisition of PPV football rights and low subscriber take-up

Content choice

4.12 The UK compares fairly well to other countries in terms of content choice. Although the number of channels provided through traditional analogue terrestrial television is at the low end of the range, the number of channels currently available across all platforms in the UK is 416, which is second only to the US amongst the comparator countries set out in Figure 24.

Figure 24 Availability of channels by distribution technology and country 2007

	France	Germany	Italy	Spain	UK	USA
ATT channels	7	13	9	5	5	6
DTT channels total	29	21	35	21	46	18
FTA channels	*18*	*21*	*33*	*21*	*39*	*18*
Pay channels	*11*	*-*	*2*	*-*	*7*	*-*
Satellite pay channels total	109	33	79	66	110	185
Entry level channels	*77*	*8*	*60*	*20*	*31*	*46*
Top level channels	*32*	*25*	*19*	*46*	*79*	*139*
Cable channels	c220	c40	-	c100	c160	c275
Total channels available	244	93	205	108	416	440

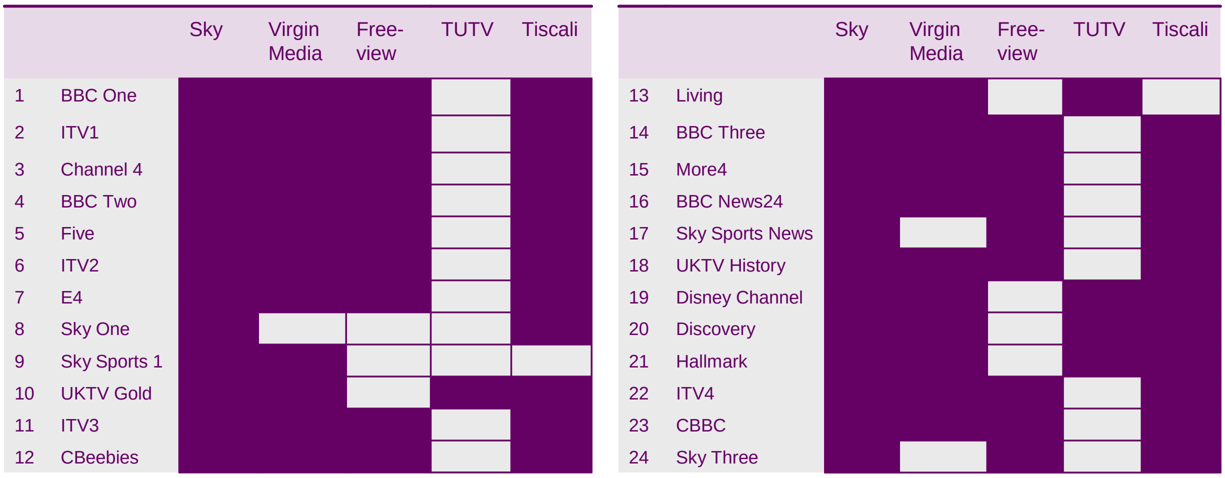
Source: Screen Digest, TV International Sourcebook 2007, Ofcom

Availability of channels by distribution technology in the UK

4.13 Choice of content does vary somewhat between satellite, cable and DTT. Figure 25 shows the availability of the 24 most watched channels by platform, and we note that:

- All 24 channels are available on satellite
- Most of the channels, except three that are owned by Sky (Sky 1, Sky Sports News, Sky 3), are available on cable through Virgin Media.
- Most of the channels, except two that are owned on Sky (Sky 1 and Sky Sports 1), are available on DTT, either via Freeview (17 of the 24 most-watched channels) or via Top Up TV (which offers content from a further five of the most-watched channels on a subscription basis).

Figure 25 Availability of most watched channels by platform UK 2007[19]



Source: Ofcom, BARB and provider websites

4.14 Figure 26 and Figure 27 below summarise the availability of premium content across the different technologies, disaggregated between sports and movies. In the UK the two main sources of premium content are Setanta and Sky:

- Setanta's premium sports content is available on satellite, cable, DTT and IPTV.

- Sky's premium content is available on its own satellite platform, and on Virgin Media's cable platform. However, the versions of Sky's premium channels which are available on cable do not have the full range of functionality (e.g. interactivity) which is available on Sky's satellite service, and are not available in high definition. Sky's premium channels are not available on DTT-based platforms, though Sky has proposed to launch its own DTT platform, on which it would retail premium channels. Sky already retails its premium channels on IPTV (via Tiscali).

4.15 The key conclusions from the international comparators are that

- For all countries other than the US premium content is skewed towards pay TV, with only a limited amount of premium content available free-to-air. The high availability of free-to-air premium content in the US may reflect the relative importance of advertising revenue in the US, due in part to the more relaxed regulation of advertising minutes.

- Within pay TV, premium content is skewed to pay satellite in all European markets. The availability of premium content via other distribution technologies is highly variable. For example, there is significant availability of premium content on cable in some markets (UK, Spain) but not others (Germany, France). Of the three pay DTT platforms included in our sample, France and Italy both have a greater availability of premium content than is available on DTT in the UK.

[19] Note that the large number of satellite subscribers will tend to push satellite-only channels up the list of "most watched" channels.

Figure 26 Availability of premium sports content by distribution technology and country

	UK	USA	Germany	France	Italy	Spain
ATT	○	◕	◔	◑	○	◑
Pay DTT	◔	N/A	N/A	◑	◑	N/A
Free satellite	○	◔	○	○	○	N/A
Pay satellite	●	●	●	●	●	●
Cable	◕	●	◔	○	N/A	●
IPTV	◑	●	◕	◕	●	◕

Key ○ Not available ● Significant content available

Source: Spectrum Value Partners, operator websites

Note: Top-flight football leagues are used here across all the European markets as a proxy for premium sports. The US is not directly comparable as it has a wide range of sports which we have grouped together to reflect premium sports content.

4.16 Some additional notes in explanation of the table above follow:

- **UK** – Majority of premium sports are shown on cable and pay satellite. Pay DTT and IPTV offer Setanta Sports. Consumers can purchase Sky Sports on Sky by Wire over Tiscali's network. Analogue TV tends not to show any FAPL content apart from a series of clips from the league matches played that week on Match of the Day.

- **US** – Analogue TV shows all the major sporting events with pay satellite, IPTV and cable offering additional sports. Pay satellite, IPTV and cable have similar content offerings due to must offer obligations placed on all platforms. Pay DTT, though launched, has not taken off in the US due to poor reception and low installed base of terrestrial aerials.

- **Germany** – Premium sports content available on pay satellite only. IPTV offers a VOD only service for premium sports, cable offers a limited offering of premium sports through Arena. There is no pay DTT platform and free satellite does not offer any premium sports content.

- **France** – Analogue TV is a major purchaser of sports rights as is pay satellite. Pay satellite tends to wholesale this to IPTV operators, however currently Orange is the only operator with access to all the sports content. Cable does not offer any premium sport content; DTT offer a single package of 30 channels which includes premium sport and football.

- **Italy** – No premium sport offerings on analogue TV, satellite has the majority of premium content which IPTV wholesales from Sky Italia. Pay DTT offers six PPV premium channels including sport. There is currently no cable offering in Italy.

- **Spain** – Analogue TV shows one La Liga match a week on FTA. Due to regulatory obligations no one platform has exclusive access to premium content. However, cable and pay satellite have richer premium sports content than IPTV which requires an additional subscription. There is no pay DTT offering nor free satellite offering

Figure 27 Availability of premium movie content by distribution technology and country

	UK	USA	Germany	France	Italy	Spain
ATT	◔	◔	◕	○	◔	○
Pay DTT	○	N/A	N/A	◔	◑	N/A
Free satellite	○	◔	○	○	○	N/A
Pay satellite	●	●	●	●	●	●
Cable	●	●	◔	◔	N/A	●
IPTV	◑	●	◕	◑	◕	◑

Key	○	Not available	●	Significant content available

Source: Spectrum Value Partners, operator websites

Note: We have taken premium movies to mean first-run films.

4.17 Some additional notes in explanation of the table above follow:

- **UK** – Pay satellite and cable offer all the premium movie channels. IPTV offers a VOD service for movies - often for older movies than currently found on cable and Sky. In addition it offers some of the Sky Movies channels, however this is only on Tiscali and not on BT Vision. Analogue TV shows movies, but often not the latest blockbusters, as Sky has contracts with the six major Hollywood studios.

- **US** – Analogue TV shows very little premium movie content. The latest blockbusters tend to get shown on pay TV platforms first.

- **Germany** – German analogue TV is more active in buying movie rights than the UK FTA broadcasters. Satellite has the most premium movie content, followed by IPTV. Cable has only now begun to offer premium movie content through Arena.

- **France** – Analogue TV has very limited premium movie content, with pay satellite having the majority of movie content, which is then wholesaled to IPTV operators. Cable has basic packages and does not offer much premium movie content.

- **Italy** – Strong FTA offering on analogue TV for movies, even though the majority of it is not premium content. Satellite has the majority of premium content, which IPTV wholesales from Sky Italia. Pay DTT offers six PPV premium channels. There is currently no cable offering in Italy.

- **Spain** – Analogue TV show very few movies which are considered premium content. Cable and satellite have similar offerings for premium movies and IPTV tends to show fewer premium movies.

Sky/Virgin dispute

4.18 The link between content and platform choice was highlighted by the recent dispute between Sky and Virgin. This was a source of concern to the National Consumer Council, which was worried that the dispute resulted in consumer detriment.

4.19 Up until 28 February 2007, Sky supplied several basic-tier channels to Virgin Media on a wholesale basis, for resale by Virgin to its own retail customers. These channels were Sky One, Sky Two, Sky News, Sky Travel, Sky Travel Extra and Sky Sports News. Following the failure by the two companies to renew the existing contract for this wholesale supply Sky stopped supplying these channels on 28 February.

4.20 On 1 March, the National Consumer Council issued a press release stating that:

> "The fallout from the dispute between Virgin Media and Sky is bad news for consumers. Over 3 million Virgin Media customers have been left high and dry. They have lost some of the most popular channels, they aren't getting a discount, and they've had little notice."

The NCC attempted to bring the parties to arbitration in order to resolve the dispute.

4.21 The dispute is now the subject of a High Court case between Virgin Media and Sky.

4.22 Although Ofcom is not in a position to judge the precise effects of the dispute on Sky and Virgin, there have been various public indications that the dispute has been detrimental to both companies:

- Virgin Media has estimated customer losses of 40,000 due to the removal of Sky's basic channels[20].
- Sky has stated that not distributing its basic channels via Virgin Media would impact its operating profits by about £15 million per quarter[21].

4.23 The fact that this dispute appears to have had a negative impact on both firms involved, as well as on consumers, appears puzzling, since this should have created a commercial incentive for it to be resolved. One potential explanation could relate to the incentives on a vertically integrated wholesale channel provider and retailer (Sky) as regards supply of its channels to a rival retailer (Virgin). These types of incentive are discussed further in chapter 6 below. Another possible reason is, however, that the current situation is simply the result of a commercial negotiation, where the two firms have found themselves at an impasse.

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[20] http://media.corporate-ir.net/media_files/irol/13/135485/FINAL_VM_Q2-07_Press_Release.pdf

[21] Sky's first quarter operating results for 2007/08

Assessment of evidence on choice

4.24 Above we have laid out some issues relating to the nature of choice available to consumers of pay TV services. The situation in relation to platform choice can be summarised as follows:

- Just under 50% of UK consumers have a choice of established digital TV platforms, based on either cable or satellite distribution.

- Pay DTT is available to three quarters of the population. In addition, many consumers may have the option of taking up BT Vision's on-demand pay TV services if they are able to sign up to BT broadband services. This represents an increase in pay TV platform choice compared to five years ago; previously, customers outside areas passed by cable would have been restricted to satellite only.

- Even now, however, choice of platforms is greater for those in particular areas. London consumers may have a choice of as many as five platforms – Virgin Media, Sky, Top Up TV, BT Vision and Tiscali TV. Customers in some areas, often rural, may be restricted to satellite alone.

4.25 The situation in relation to choice of content can be summarised as follows:

- In total, the UK offers a wide range of content. Only the US offers more than the UK in terms of the total number of channels available. The number of free-to-view channels available in the UK is particularly high.

- Of the 24 most watched channels, most are available on satellite, cable and DTT. The only exceptions are a small number of basic-tier channels owned by Sky (three Sky channels that are not available on cable, and two Sky channels that are not available on DTT).

- Sky's premium sport and movie channels are available on cable as well as via Sky's own satellite platform, although the cable channels do not have the same interactive capabilities as the satellite channels. Sky's premium content is available on IPTV, but not currently available to other retailers on DTT, although Sky has recently proposed its own DTT service. Setanta's premium sport channels are available on satellite, cable, DTT and IPTV.

- Following the failure of Sky and Virgin Media to agree on the continued supply of a package of Sky basic channels to Virgin, consumers are now limited in their choice of provider if they want to buy those channels.

Innovation in platform services

4.26 As discussed in section 3, the UK TV sector has seen significant innovation in recent years. Entirely new delivery platforms have been, and continue to be developed – IPTV in its various forms, for example. DTT has developed to become a significant set of services that is sufficiently appealing to have attracted over nine million households.

4.27 At the level of individual platforms, TV viewers have been able to take advantage of a number of innovations, including:

- DVRs, whether via Sky, Virgin or the horizontal set-top box market, together with push-download VOD-type services, e.g. Top Up TV Anytime and Sky Anytime.
- High definition services
- PPV services
- Increasing availability of VOD or near-VOD
- Increasing levels of interactivity

4.28 On this basis, innovation in this market to date appears to offer strong benefits for consumers.

Pricing of pay TV services

4.29 Prices are obviously a key factor in the assessment of consumers' experience. In this section we summarise the pricing structure of pay TV services, and then consider whether prices might be excessive, by comparing UK prices with other countries, and analysing the profitability of pay TV suppliers.

Pricing structure

4.30 In this section we summarise the typical price structure for pay TV services in the UK, and compare this with other countries. Further detail is provided at Annex 8.

4.31 Consumers in the UK typically buy pay TV products as packages of linear channels, although subscription and pay-per view video-on-demand services also exist. The types of channels and content that are included in pay TV packages generally fall into two categories: basic and premium. Basic pay TV packages typically provide a number of channels containing content from a wide range of genres. Premium pay TV packages provide channels which broadcast live sporting events and first-run Hollywood films.

4.32 With some limited exceptions, in order to buy premium packages, customers first have to subscribe to some form of basic package – a practice known as 'buy-through'. The main exception to this is Setanta's premium sports service, which is available on the DTT and DSat platforms on a stand-alone basis.

4.33 The main services and price points are summarised in Figure 28 below. In many cases, TV packages are available in combination with telephony and broadband services. In some cases these services are available as an add-on, but in some cases the customer does not have the option to purchase the services separately.

Figure 28 Summary of pricing structure of main retail packages

Retailer	Main packages available to new customers	Price (£ per month)
BT Vision	Only available with BT broadband	On demand from £0.29; monthly packs from £4
Setanta	One channel on DTT (stand-alone or via BT Vision)	£9.99
	Nine channels on satellite	£9.99
Sky	Six basic mixes	£16-21 depending on number of mixes taken
	Premium sports / movies – buy-through from basic	£34-41 (£18-25 extra)
	Sky Box Office – near VOD PPV – buy-through from basic	Priced per film or event
	Multiroom	£10 per room
	2mb broadband	Free with TV service (separate £11 line rental required)
	Evening / weekend calls	Free with TV (separate £11 line rental required)
Tiscali TV	Basic package, with 2mb broadband and some calls	£19.99; £30 set up fee
	Additional channel packs, e.g. entertainment or music	£6 each
	Sky Sports / Sky Movies	From £22
	On-demand films	From £1.99 per film
Top Up TV Anytime	Basic programming	£9.99
	PictureBox – library films from Universal Studios	£5 with basic programming, £7 as a stand-alone
Virgin Media	All TV packages only available as bundles with other services; all allow PPV VOD	Various permutations of services from 2 for £20, 2 for £25, 3 for £30, 4 for £40, "Very Impressive Package"
	M: Similar to Freeview channel selection	
	L: Similar to Freeview channel selection, plus basic channels	
	8 Setanta channels	£8 with M or L package 7 channels free with XL package
	XL: >140 channels including 7 Setanta Sports channels	£20.50 when taken with phone; £25 installation charge
	Sky Sports or Movies	Various permutations, from £24 with M TV / £15 with XL TV
	Sky Sports and Movies	£37 with M TV, through to £25 with XL TV

Source: operator websites

Note: correct at 16 October 2007

4.34 When buying a pay TV product, consumers first have to buy the hardware required in order to enable them to view an encrypted video stream. In some cases, the requisite hardware will be included in their TV set. More commonly, they have to purchase or hire a dedicated set-top box.

Comparisons with other international markets

4.35 The table below looks at the terms on which premium content is available in some other international markets. There are obviously considerable differences in the prices of services available in different countries. It is worth noting, however, that "buy-through" is not uncommon in other markets, although the terms obviously vary.

Figure 29 Summary of entry price points for premium content in major markets

Country	Availability of live premium sport events on free-to-air	Lowest price to watch some premium football matches (inclusive of base package price)	Lowest price to watch all live televised football matches (inclusive of base package price)	Lowest price to watch some premium movie content (inclusive of base package price)
France	No	€26.90/month to view 3 "Ligue 1" matches in addition to other sports content – offer available on satellite. Some matches are also available on a PPV basis on satellite	€33.90/month offer available on satellite (incl. "Ligue 1" matches and Champions League etc.)	€19.90/month for a bouquet of subscription film channels on cable. Films are also available on a PPV basis on Satellite once base package subscription of €20.90 is paid
Germany	Yes – two "Bundesliga" matches must be broadcast FTA per season	€3.90/month to view a small selection of "Bundesliga 1" matches on cable	€18.80/month offer available on cable (all Bundesliga Division I and II matches)	€7.90/month offer available on cable for an additional film channel. Films also available PPV on all platforms once base package is purchased – base pack prices from €11.00 to €19.95/month
Italy	No	Can watch all football matches on a PPV basis on DTT – approximately €6 per match	Ordinarily costs €39.00/month to view all football matches with Sky's football package on satellite and IPTV. However, the leading IPTV operator in Italy, Fastweb is currently charging a flat rate of €24 for all Sky packages. It is also possible to watch all football matches for the season on DTT for €159.00	Ordinarily, €36.00/month for Sky's bouquet of subscription film channels. However, Fastweb is currently offering Sky's film channels for a flat rate of €24.00/month. It is possible to view films on a PPV basis on DTT. Italy is the only country that does not require a base pack subscription in order to acquire premium movie content
Spain	Yes –one "La Liga" match must be broadcast FTA per week each season.	A selection of the top "La Liga" matches are available on a PPV basis on all platforms. The best recent offer was €20.90 for 4 matches per month on a PPV basis on IPTV	€29.95/month offer available on satellite. (incl. Champion's League Matches, NBA and Premiership etc)	€17/month on IPTV for subscription film channels
UK	No	€13.85/month through Setanta on DTT	€65.15/month Virgin Media TV size XL, phone size M (includes Setanta Sports), plus Sky Sports Collection	€47.13/month for one Sky basic mix and Sky Movies
USA	No	€27.37/month to watch a wide range of sports, including some NFL games on satellite. NFL does not allow broadcast of games on a PPV basis	€183.59/season plus an additional €20.47/month as a base price to watch an entire season of NFL games on satellite	€22.51/month for a bouquet of subscription film channels on satellite

Source: Spectrum Value Partners, operator websites

Note: correct at 26 October 2007; precise packages change frequently; exchange rates at 10 December 2007 - £1=€1.39, $1=0.68

Initial assessment

4.36 The current pricing structure of pay TV in the UK obliges many consumers to purchase other packages in order to gain access to premium content. They have to buy some form of basic TV package, or a TV package combined with other services. There are exceptions to this – Setanta offers a stand-alone premium sports package. However, for a fan of live Premiership football wanting all available games, or someone wanting to watch first-run Hollywood films, a buy-through from basic content is the only way to purchase premium sport or movies.

4.37 This may reduce consumer choice, since consumers who wish only to purchase premium content without basic content are unable to do so.

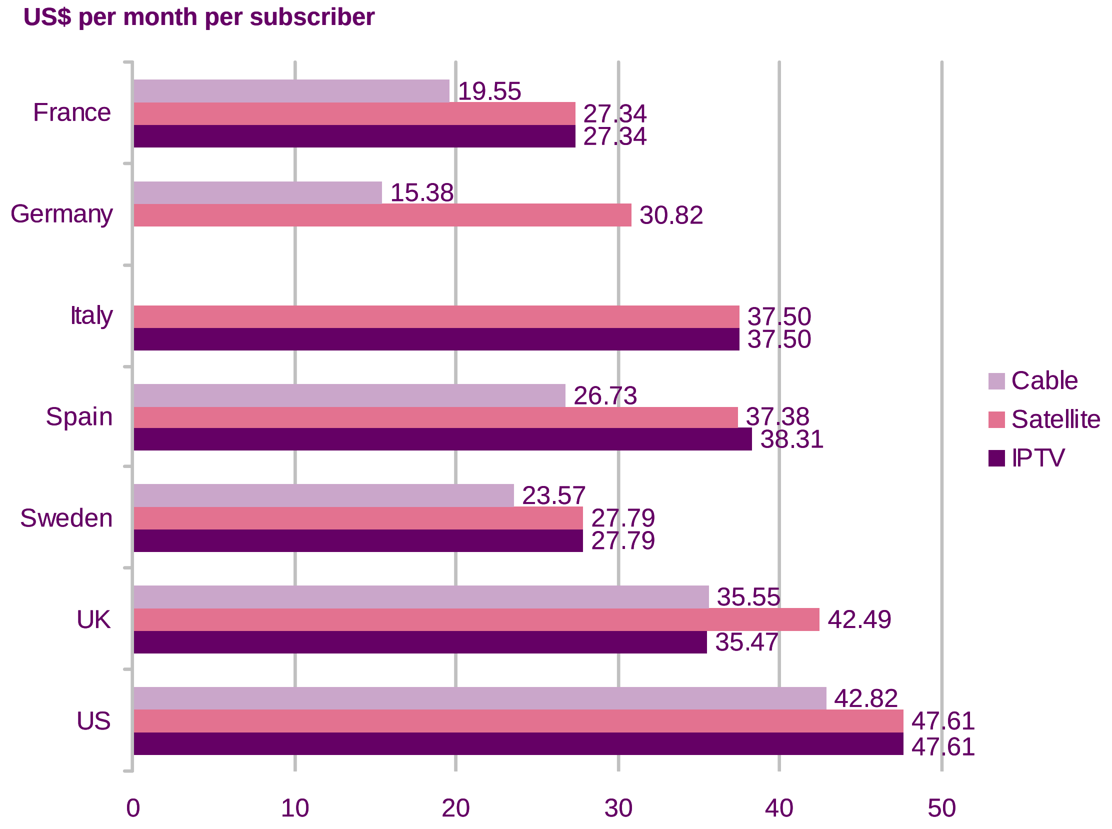
4.38 On the other hand, this is one manifestation of price discrimination. Price discrimination is likely to be relatively common in a market such as this where the marginal cost of distribution is very low. Any concerns we might have with this would stem from any effect of such practices on competition. We discuss these issues in chapter 6.

Pricing levels

4.39 We now consider the absolute level of pricing for pay TV services. In a market such as pay TV where fixed costs are high, and variable costs low, it is likely that prices will be above marginal cost, making it hard to establish a simple benchmark for pricing. Given this, it may be helpful to compare UK prices with prices in other countries.

4.40 Figure 30 below compares the average revenue generated by pay TV subscribers for a range of countries. Revenues have been converted to US$ at purchasing power parity (PPP) exchange rates. These figures are drawn from analysis carried out for us by Spectrum Value Partners.

Figure 30 Cross-country comparison of average revenue per subscriber, in PPP terms: 2005



Source: Informa / EIU / Spectrum Value Partners

Note: data for the US are for 2006 – all other data are 2005

4.41 The average revenue per subscriber is higher in the UK than in any other country, except the US, for both satellite- and cable-based services. It however important to interpret these results with caution; average revenues per subscriber will be affected by the prices charged to consumers, but they are not prices in themselves. We note that:

- Differences in pricing structures between different countries make direct pricing comparisons difficult. In such circumstances a comparison of average revenues provides an attractive alternative;

- But that in making such a comparison a number of other factors need to be considered, such as differences in the range and quality of services being offered. In the US, for example, there is a larger and more advanced pay TV market offering additional features such as numerous HD channels, subscription VoD and several PPV channels. These additional services may generate additional revenues.

4.42 Notwithstanding this, the Parties argue in their Submission that revenues provide valid indicators of price and that much of the difference between UK average revenues per subscriber and those elsewhere can be attributed to differences in competition in different countries. They argue that, both in Italy and the UK, where average subscriber revenues are highest, the satellite pay TV retailer faces limited competition from cable or any other platform. By contrast, in Germany which has one of the lowest average revenues per subscriber, they argue that the satellite broadcaster faces competition from cable operators which have significant penetration.

4.43 Recognising that international differences can be attributed to a range of reasons aside from competition, the Parties commissioned economic consultants LECG to undertake an econometric study which compared the average pay TV prices in the UK and other European countries. LECG investigated to what extent the differences between countries are attributable to "country specific differences in demand" such as differences in content quality and income per capita. This study concluded that allowing for these factors still left the UK with prices 36% higher than the average prices in other countries[22].

4.44 Further analysis by LECG found that a significant proportion of this difference was attributable to what LECG termed "structural market features" rather than "legitimate factors" such as higher cost of content and higher average income in the UK.

4.45 We have carried out an initial assessment of this analysis, assisted by Andrew Chesher, a professor of economics, at University College London. We have raised a number of concerns about the model and conclusions drawn. These include the following:

- The data may not be sufficiently strong to support the precise conclusion drawn. For example, as already mentioned, average subscription revenue per subscriber is used as the measure of price. These are not prices paid by any individual consumers and will be affected by the very different pricing structures in different countries, for example differences in advertising revenues or subsidies in the form of set-top boxes.

- This is a market that has changed significantly over the period considered. However most of the analysis assumes that the market remains broadly unchanged. The econometric model, therefore, may have not accounted sufficiently for the other changes that have taken place in the market across the period.

4.46 We put these concerns to LECG. It provided some additional data on features of selected European pay television markets to suggest that that the results of its study were unlikely to be significantly affected by the lack of information on factors such as equipment subsidies, advertising revenues, programme quality and the type of services subscribed to by consumers. It also presented analysis to support the claim that the results could be interpreted as evidence of a causal link between market structure and average prices.

4.47 We also put LECG's initial analysis to Sky. Sky argued that the work could not be relied upon to draw any conclusions about consumer detriment as a result of poor UK competition. In addition to a number of technical points raised about the econometric methodology, Sky noted that:

[22] See: http://www.ofcom.org.uk/media/news/2007/03/annex1.pdf

- The data LECG uses to reflect quality only cover expenditure on movie rights and therefore omit other major aspects of programme quality (such as sports rights, and programming on basic content).

- The definitions of the services covered under the label “pay TV” vary within the dataset used. Notably, payments to cable TV operators by households who use free-to-air services are treated as pay TV subscriptions. As a result a comparison of average revenues per subscriber across countries will reflect differences in cable TV penetration rather than differences in price, quality, or market structure.

- The indicator used for market structure is the market share of the largest DSat supplier. The fact that countries with a larger DSat penetration may have higher prices simply reflects the fact that retailers operating on DSat platforms often sell packages with a comparatively greater pay TV share than retailers on cable platforms.

4.48 Our initial assessment is that we are unable to conclude on the basis of currently available evidence that UK prices are excessive. This is because firstly, the available data may not provide an effective means of measuring the prices charged in different countries, and secondly, the analysis of the data may not adequately capture potential differences in quality, which could themselves explain underlying price differences. These are however only preliminary conclusions and we would welcome further evidence.

Profitability and investment returns[23]

4.49 An analysis of pay TV pricing can also be informed by looking at profitability and investment returns. Companies earning excess profits for a sustained period may constitute evidence of the exploitation of market power through charging “excessive” prices to consumers. Ofcom is aware of the risks of inferring too much about the effects of the operation of the market on consumers from profitability analysis. Such indicators should not be used in isolation from a fuller assessment of competition in the market.

4.50 The ability to conduct analysis of profitability and investment returns earned by various firms is improved when the activities of the firm are wholly and directly related to the relevant market, comparable with each other and owned by a company which trades on a recognised stock market exchange. In the case of the UK pay TV market, such analysis is not straightforward. Top Up TV, for example, is not a listed company, which means that the returns to investors can be difficult to assess. BT Vision is only a small part of a much bigger entity (BT Group) meaning that both costs and returns may not be entirely distinct from that of the parent. Virgin Media is publicly listed but derives a significant proportion of its revenue from activities which are not directly related to pay TV, such as broadband, mobile telephony and voice telephony. Furthermore, the various mergers and restructuring which Virgin Media and its predecessors have undertaken tend to reduce the visibility of profitability and returns earned over long periods of time.

[23] For further detail on Ofcom’s analysis of profitability and investor returns, see Annex 12 to this document.

4.51 To some extent, Sky also undertakes activities which are not directly related to pay TV. It has also engaged in a number of discontinued or unrelated activities and investments in the past. However, in the case of Sky, unlike the other operators mentioned above, there is a long-running time series of readily available data on its financial performance and the returns offered to investors, which make an analysis more straightforward than is the case for other operators. We have therefore undertaken a preliminary analysis of returns earned by Sky, and this is set out below.

4.52 Accounting based profitability measures can be a poor estimator of economic profit due to accounting distortions and, in the case of comparator analysis, differing accounting treatments. In Sky's case, operating profit margins have varied very considerably in the last decade, from below 5% to almost 30%.

4.53 We have carried out two types of analysis on investment returns: one is to consider the observed returns experienced by Sky shareholders in terms of capital appreciation and dividend income, the latter of which is assumed to be reinvested in additional Sky shares. This measure is sometimes referred to as "Total Shareholder Return" and reflects the returns available to shareholders through actual dividends and changes in the expectations of all future returns anticipated by the market. By considering Total Shareholder Returns as an investment project it is possible to compute the Internal Rate of Return ("IRR").

4.54 The second is to compare the enterprise value implied by the market for Sky (being market capitalisation plus debt financing) with the value of Sky's assets. This ratio between those different valuations is sometimes referred to as "Tobin's q"[24].

4.55 Note that it is possible that significant profits may be being made upstream of Sky, for example by content providers. These would not be revealed by this analysis, but may still result in excessive prices being charged to consumers.

<u>Internal rate of return implied by observed total shareholder return</u>

4.56 Our initial analysis suggests that a shareholder who invested in Sky at flotation in 1994 and sold at current market values would have seen an internal rate of return in the order of 6-8% per annum, depending upon the precise source data and type of calculation used.

4.57 These results measure returns incorporating all activities of British Sky Broadcasting plc and include a number of activities unrelated to pay TV, some discontinued activities and a number of investments made in other companies by Sky. It is therefore not a pure measure of returns generated from Sky's pay TV business although, given the pre-eminence of pay TV activities, the actual and anticipated returns generated from this line of business might be expected to dominate the returns profile.

4.58 We note that a return of 6-8% per annum is lower than total shareholder returns measured by the various indices over an equivalent period, including the FTSE 100 (9% per annum), FTSE 250 (12% per annum) and FTSE All-Share (9% per annum). Accordingly, based on this preliminary analysis, total shareholder returns from Sky over the period since flotation do not appear to have been excessive compared to the stock market as a whole. Although Sky's cost of capital would have varied during this

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[24] See, for example, p831 of "Principles of Corporate Finance: 6th Edition", Brealey and Myers

period, it seems unlikely that a return of 6-8% per annum to shareholders would significantly exceed (if at all) the returns demanded by shareholders (or, more formally, Sky's "Cost of Equity").

4.59 It is also important to note that this analysis only measures total shareholder returns in the post flotation period. In the event that at or before flotation Sky was, or was expected in the future to be, in a position to make super-normal returns in excess of its cost of capital, the returns generated from this position would have been incorporated into its valuation at the time of the float. Under these circumstances, capital appreciation since flotation would reflect only *changes* in shareholder expectations of such super-normal returns and would not identify any such expectations that were already incorporated into the value at flotation.

4.60 An initial analysis of Sky's valuation at flotation in 1994 suggests that the new shareholders paid a significantly higher sum for the company than the nominal amounts of money that had been invested by the previous shareholders in building the business up to that point.

4.61 However, new shareholders at the flotation would have been expected to value the company not based on historic (sunk) costs, but on the anticipated net present value of all future shareholder returns that they could expect to receive. Furthermore, the investment by the original shareholders in the companies which eventually merged to form Sky may well have been regarded as high risk by the providers of the capital and under circumstances of success, high returns on the investment might be appropriate.

4.62 Accordingly, the fact that Sky's implied market value upon flotation was higher than the sum of investment required to fund the business up to that point is not in and of itself evidence that shareholders were anticipating future super-normal returns in the future which would have been in excess of the cost of capital.

Comparison of enterprise value and asset values

4.63 The assessment of the ratio of enterprise value to assets is based upon the premise that if the market values the company at a level which is higher than the cost which would need to be incurred in order to build it, then the difference is attributable to super-normal profits being earned by the company. These returns could be attributable to characteristics of the market which mean the company has market power through, for example, barriers to entry.

4.64 Comparing the book values of Sky's assets, excluding goodwill and net of current liabilities, with its implied enterprise value, whether at flotation or at present, suggests that Sky's enterprise value is significantly greater than implied by its accounting balance sheet. As Figure 31 below shows, the extent of this differential has varied significantly over time. The ratio of enterprise value to balance sheet value is approximately 7:1 based on 2007 values. We have compared Sky's ratio of enterprise value to book value with those of the other firms which constitute the FTSE100 index. These figures showed a significant variation in values, with Sky's ratio in the upper quartile.

4.65 However, book values are sometimes considered poor estimators of the economic value of a company's assets and may therefore not be adequate proxies of the current replacement costs of the company's assets. There are two main reasons for this:

- The company has significant intangible assets which are not captured on the balance sheet.

- The book value of a company's assets will tend to understate the economic value when expenses are written off in a single period for accounting purposes whilst the economic value of such expenditure may extend beyond that period.

4.66 There are specific reasons why the unadjusted market to book value ratio will be particularly overstated in Sky's case.

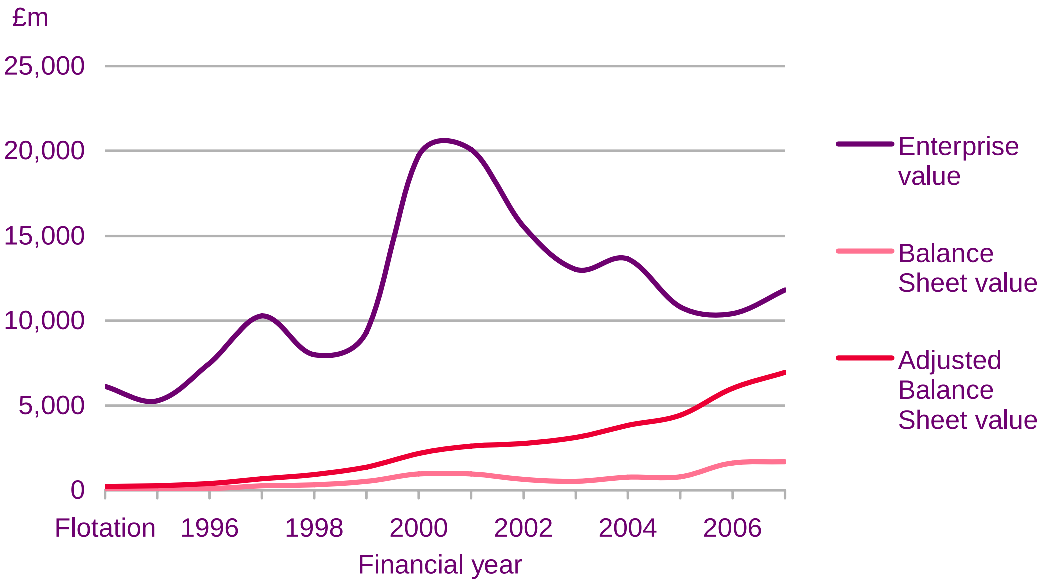
- Marketing costs are expensed in the profit and loss account but may have significant enduring value through the creation of a lasting marketing "asset" such as a brand or brand value.

- Similarly, Sky's subscriber base might be thought of as an "asset" which is not reflected on its balance sheet, but which is likely to be seen as a key source of value by its shareholders.

4.67 An attempt to capture some estimate of this value can be made by capitalising all marketing expenditure undertaken by Sky during the period, having extracted such data from Sky's annual accounts. Key components of this figure include both brand expenditure and consumer equipment subsidies. In order to bring the historic recorded marketing expenditure closer to current replacement values, it can be inflated to 2007 prices. For the purposes of this analysis, Ofcom has not amortised the value of these expenditures, effectively assuming that they do not create a wasting asset. As such, we consider that the results presented represent an upper bound estimate of the significance of these intangibles in relation to the comparison between asset value and enterprise value.

4.68 This analysis, presented in the chart below, shows that the relationship between Sky's enterprise value and our adjusted balance sheet value fluctuates significantly over time but currently approximates a ratio of 1.7:1.

Figure 31 Comparison of Sky market to book value from flotation to 2007, including adjustments



Source: Thomson Datastream / Ofcom estimates

4.69 On an unadjusted basis, Sky's enterprise value appears to be well in excess of the asset values recorded on its Balance Sheet to an extent that puts it in the upper quartile of the ratios for the FTSE100 firms. In Sky's case however the ratio looks particularly likely to be an overstatement of the true picture, as a high proportion of its assets may not be reflected in its book value. Although this is not a unique situation among the FTSE 100 firms with which we compared Sky, the ratio for at least some of these firms would be likely to be less inflated than for Sky because they would be likely to have fewer intangible assets.

4.70 Although, with a ratio of 1.7:1, Sky's market valuation still exceeds the asset valuation by a significant amount, this also appears to be true for a significant number of other companies. While there are large numbers of other adjustments which could be made to each company in order to better equate book value and replacement costs, making them robustly would be problematic.

4.71 Taken together, our initial conclusion is that we do not see this analysis as providing sufficient evidence to support a claim that Sky is earning excessive profits. We invite views on this.

Assessment of evidence on pricing and profitability

4.72 A headline comparison of average revenues per subscriber could at first sight be taken to indicate that UK consumers are paying too much for their services. The currently available evidence is however insufficient for us to be able to infer that UK prices are excessive.

4.73 Differences in pricing structures and service quality need to be fully allowed for. The econometric analysis provided by the Parties attempts to do this, but for a number of reasons, in particular the difficulties of finding data that accurately capture differences in pricing structures and all aspects of quality, we cannot draw any robust conclusions about relative price levels.

4.74 Similarly, our initial analysis has not found conclusive evidence of excessive profits being earned by Sky:

- An analysis of returns to shareholders does not highlight excessive returns being earned in comparison with other leading companies. The internal rate of return experienced by Sky's shareholders from flotation in 1994 to 2007 has been in the region of 6-8%.

- An analysis of the ratio of enterprise value to the book value of assets might, at first sight, be taken as indicative of high profitability. The book value of assets does not however incorporate all the economic assets that should be considered by such an analysis. An adjustment to reflect this point brings the ratio down considerably, to around 1.7.

4.75 We recognise, however, that there are limitations to the approaches that we have used. In particular we recognise that if a company were pursuing objectives other than short-term profit-maximising, such as for example pursuing growth, it is possible that its exploitation of a monopoly position would not reveal itself in high levels of profitability other than in the longer term. In such circumstances, even though consumers may be suffering detriment, the firm's profits would not appear excessive. It might for example be argued that this view is not inconsistent with a period of building a new platform and then making the transition to digital. These are issues on which we would value views and further evidence.

Summary

4.76 Our initial assessment of the various criteria we laid out at the beginning of this chapter reveals a market that currently appears to be serving its existing consumers reasonably well.

- Customer satisfaction levels are in the 80-90% range, broadly in line with other communications markets. This suggests at least that consumers are generally happy with the services they take, but it does not capture the views of customers that do not currently subscribe to particular services.

- Consumers tend to have a better choice of platforms than a few years ago. Channel choice is also strong, although for certain types of content the extent of real choice available to consumers is rather more limited.

- The market has delivered a number of new services that are of value to consumers. Apart from the detail of new services, the development of new infrastructure and technology has seen the emergence of an increased number of types of pay TV platform from which customers can choose, although as noted, this choice is not universally available.

- The structure of pricing in the UK means that the ability of some customers to choose the services they want may be restricted. Any concerns that we might have here are likely to relate more to competition, which is dealt with in chapter 6.

- Although a headline comparison of revenues per head may be taken to indicate that UK prices are high compared to other countries, a number of caveats need to be recognised. Further examination cautions against drawing any inferences about the relative levels of prices that are actually charged, and it is doubtful that differences in the quality of services are adequately allowed for.

- It seems unlikely from an analysis of Sky's profitability that Sky's returns to shareholders could be judged to be excessive, particularly given the risk profile when the early investments were being made.

- Having said that, the absence of high profits for pay TV operators does not preclude the possibility that consumers are still paying a lot for certain types of content, but this is being invested back into the firm to pursue growth rather than short-term shareholder returns. Furthermore, there are a number of indicators that there may be an incentive for Sky to invest in market share now, even at the cost of short-term profits, in pursuit of a longer-term market position. This is discussed in chapter 6.

Consultation questions

5. Do you agree with the views we have expressed as to the level of platform and content choice available?

6. Do you agree with our analysis of innovation levels in UK pay TV?

7. Do you agree with our analysis of pricing structures in UK pay TV? Do current pricing structures act in the aggregate interests if consumers?

8. Do you agree with our initial assessment that we cannot conclude on the basis of currently available evidence that UK prices are excessive?

9. Do you agree with our initial assessment that there is not convincing evidence to support the claim that the industry is earning excessive profits?

10. Are there any other comments or evidence which you wish to provide?

Section 5

Characteristics of the pay TV market

Introduction

5.1 In this section we set out various observed characteristics of the pay TV market, which are likely to influence the way in which competition operates now, and might develop in the future. More specifically:

- We summarise our initial analysis of market definitions and market power. The detail of this analysis is contained in Annex 13;
- We set out some key characteristics of pay TV markets, and the evidence which we have collected on these characteristics. We focus in this discussion on the manner in which content is aggregated through the value chain, and the manner in which the upstream costs of content production are recovered through downstream pricing; and
- We discuss the role of vertical integration.

Market definition and market power

Introduction

5.2 Market definition is an important means of identifying the competitive constraints that individual firms face, and in turn of assessing whether firms, either individually or collectively, possess market power. Where market power is present, and likely to continue into the future, then markets are less likely to work effectively for consumers, and there is likely to be a greater incentive for firms to engage in anti-competitive conduct. Conversely, where market power is absent or diminishing, customers are less likely to suffer detriment and consequently there is less likelihood of a need for regulatory intervention.

5.3 Several of the key issues raised in submissions to us centre on questions of market definition, specifically:

- The submission from the Parties focuses on competition within a supposed market for pay TV services, whereas the submission from Sky asserts that pay TV providers participate in a broader market within which they face significant competition from free to air television. There is likely to be a particularly close relationship between basic-tier pay TV services and free-to-air services, and we have therefore considered whether these should be regarded as being in the same economic market.
- The submission from the Parties places a great deal of emphasis on the uniqueness of premium content, and the importance of all pay TV operators being able to gain access to it. We have therefore considered whether narrow economic markets exist for specific ‘must have’ content (premium sport and movies). In its submission, Sky has not explicitly addressed the issue of whether narrow markets exist for premium content, but has argued that it in any case has an incentive to make its premium content available to other retailers. We consider the incentives that may be faced by Sky in section 6 below.

- The submission from the Parties claims that Sky's control of the largest pay TV platform and subscriber base allows it to inhibit access by upstream rivals to a sufficient subscriber base. The submission from Sky highlights the rapid and pervasive change which characterises the sector, and which creates various opportunities for market entry and expansion. We have therefore considered whether particular TV platforms should be considered as falling within narrow platform-specific retail markets.

5.4 We have chosen to focus on these three main market definition questions. Although it is not always possible, or even helpful, to define the precise boundaries of each of these relevant markets[25], the process of defining the relevant economic market can reveal important information by identifying the extent of the competitive constraints on firms.

5.5 Regulators and competition authorities, in the UK and elsewhere, have considered some of these questions under previous investigations. For example, the OFT, in 2002, defined distinct narrow retail and wholesale markets for the sale of premium sports and premium films. Several other investigations have settled upon separate markets for pay TV and free-to-air TV. There has however also been a general recognition that free-to-air services place an increasing constraint on the pricing of pay TV services, most recently by the Competition Commission in 2007. We discuss the relationship between our analysis and this Competition Commission analysis below.

5.6 While both the UK and other precedents are informative, we need to consider our approach to market definitions in light of all the evidence which is currently available, and in the context of the specific questions likely to be raised by this market investigation. This is particularly important given the pace of change in the TV industry in recent years. It is likely, for example, that the emergence of Freeview with an increasingly broad content offer might erode traditional boundaries between free-to-air and pay TV services, and limit the relevance of precedents which predate this growth.

5.7 To that end, we have used a range of sources of information to inform our analysis. These include:

- Evidence on the objective characteristics of different TV products;
- Evidence from consumer research on the characteristics that consumers particularly value and which therefore drive demand for pay TV, free-to-air TV and other potential substitutes such as DVDs;
- Evidence from consumer research on the hypothetical behaviour of consumers in response to a sustained increase in prices by a small but significant amount;
- Evidence on the actual behaviour of consumers in response to historic changes in pricing;
- Evidence on the pricing and other strategies of channel wholesalers and retailers.

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[25] For example, the answer to the competition question may be the same under all candidate market definitions. It is also important to guard against ignoring the competitive constraints of products which might technically lie just outside the relevant economic market.

- Evidence on the potential for supply-side substitution.

5.8 Paragraphs 5.9 to 5.22 summarise the framework we have used and the preliminary conclusions at which we have arrived. For further detail on our analysis, please see Annex 13.

Analytical framework

5.9 The purpose of a market definition exercise is to identify all relevant products that consumers consider substitutable by virtue of a product's characteristics, prices and intended use.

5.10 A useful tool to identify the range of substitute products that might be considered to form a market is the 'hypothetical monopolist test'. This is also commonly known as the 'SSNIP' test (Small but Significant, Non-transitory Increase in Price). The test considers whether it would be profitable for a hypothetical monopolist supplying a focal product to sustain a small but significant price increase (typically 5-10%) above the competitive level of pricing. If such a price increase would be profitable, then the potential substitute products are not close enough substitutes to be regarded as being in the same market as the focal product. However, if such a price increase is likely to be unprofitable – either because consumers substitute to other products, or because suppliers switch production – then the closest substitute is considered in the same market and the experiment is repeated.

5.11 We have had to address a number of practical difficulties in applying the standard tools of market definition to broadcasting markets. Many of these arise in defining markets in other industries, but in combination, they can make the definition of broadcasting markets particularly challenging. In particular, we have considered:

- How to account for the possibility that current prices may be above competitive levels – the "cellophane fallacy".
- How to address the risk of stated preference bias in consumer survey data.
- How to take account of the two-sided nature of the market.
- How to gauge the substitutability of products which can only be consumed as part of a wider bundle.
- How to define markets for products which are highly differentiated.

5.12 **'Cellophane fallacy':** if market power is already being exercised, and firms are already setting prices above competitive levels in a manner that maximises profits, then a further price rise will not be profitable. In responding to a price increase, consumers will take into account a wider range of potential substitutes than they would if prices were at competitive levels. In such circumstances evidence of the consumer response to a price increase exaggerates consumers' willingness to switch from a product priced at 'competitive' levels, creating a risk that the market may be defined too widely.

5.13 The precedents cited in paragraph 5.5 above suggest that market power may already be present in UK pay TV markets, so that although evidence of consumers' responses to a price rise will provide a useful indication of which products are close substitutes to each other, this evidence must be treated with caution.

5.14 **Stated preference bias**: there is a risk that consumers respond to hypothetical questions about price changes by overstating their likely switching behaviour. This can again create a risk of markets being defined too broadly. We have sought to address this issue by looking at the way in which consumption levels have changed historically in response to changes in actual prices.

5.15 **Two-sided markets:** markets are two-sided where there are two distinct customer groups, such as viewers and advertisers, whose demands are interdependent. Two-sided markets may lead to unusual pricing structures where the producer subsidises one side of the market in order to maximise demand on the other side of the market.

5.16 Wholesale channel providers can be considered as participating in a two-sided market, in which they sell licences for wholesale channels to retail service providers on one side of the market, and they sell advertising impacts on the other side of the market. They may be willing to license their wholesale channels at a reduced price in order to increase the number of viewers, and thereby increase advertising revenues. At the extreme, wholesale channel providers may go ‘free to air’ in order to maximise advertising revenues, thereby giving up subscription revenues entirely.

5.17 This presents practical difficulties in estimating the profitability of a price increase. We have applied the SSNIP test only to the price of pay TV subscriptions. We recognise that this may have a tendency to overstate the profitability of a price increase (as loss of subscribers will also lead to lost advertising revenues), but we believe that the magnitude of any such bias to be small.

5.18 **Bundled products:** Nearly all TV products are sold as part of a bundle, for example a bundle of programmes into a channel, channels into a ‘mix’ or TV with other communications services. It is not possible to observe the price of individual components of these bundles. We have therefore applied the SSNIP test to the price of the bundles which are actually available in the market.

5.19 **Differentiated markets**: Markets which contain a variety of differentiated products, such as some broadcast markets, may not have a clear-cut boundary. This can mean that there may not be a unique distinction between products that are in the market and products that are outside it. In such circumstances markets should be defined in the most appropriate manner given the specific competition issue under consideration. Market definition is a tool for analysis and may therefore vary from one investigation to another

5.20 Indeed, it can be counter-productive to take a very binary approach to market definition for differentiated markets, dividing products into those which are close substitutes to the product of interest, and those which are not, and only giving detailed consideration to the former. It may be of more value to analyse the level of constraint imposed on the product of interest by a range of other products, including some which are outside the formal market boundary.

5.21 This consideration is particularly relevant to any discussion of the boundary between pay TV and free to air services. This boundary issue was thrown into sharp focus by the merger analysis which followed the recent acquisition by Sky of shares in ITV, given that these companies are respectively the UK’s major retailer of pay TV services and the UK’s leading commercial broadcaster of free-to-air services. We note in this context the recent provisional finding of the Competition Commission that:

> “ITV and Sky compete for viewers within a differentiated product market. This differentiation can be seen in a range of dimensions, such as the

amount, type and quality of content provided, the timeliness with which the content is provided (linear or on-demand), the provision of complementary services and equipment (such as EPGs and DVRs), and whether services are available as part of a bundle with other services (for example, telephony and Internet access)” [paragraph 4.5]

“Our view… is that FTA and pay services compete with one another within a market for ‘all-TV’, which includes VoD. The all-TV market is highly differentiated, however…” [paragraph 4.31]

5.22 The CC’s draft decision clearly acknowledges that there has been an increase in competition between free to air and basic-tier TV. However, the CC emphasised that the question it was seeking to address was whether market power would be increased following a merger, rather than whether any firm had existing market power (which was the focus of previous UK investigations). One implication of this is that the CC conducted its market power assessment on the basis of current prices, which, as it acknowledges, are not necessarily at competitive levels.

Preliminary conclusions on content / channel market definitions

5.23 Our preliminary conclusions on market definitions for content and channels are that:

- It remains likely that there are separate retail and wholesale markets for the supply of premium sport and movie channels. The market for premium sports channels is likely to include both Sky Sports and Setanta, although we cannot rule out a narrower market for Sky Sports alone.

- It seems likely that basic-tier pay TV and free-to-air TV are also in separate retail markets. However, this conclusion is less firm than our conclusion on premium sport and movie channels, since free-to-air represents a growing constraint on basic.

5.24 We have not assessed the wholesale market for basic-tier pay TV on the basis that there are numerous wholesalers of basic channels. Even if we concluded that there were a narrow market for the provision of wholesale basic channels, it would be a relatively unconcentrated market, and we would therefore be highly unlikely to find that any firm were dominant within that market.

Premium sport channels

5.25 A ‘premium sports’ pay TV service is usually defined as one that provides live access, often on an exclusive basis, to a specific set of highly-valued sports events. For the purposes of this work, we have considered packages of premium sports that include access to live FAPL matches.

5.26 In reaching our conclusion on **premium sport** channels we note firstly that the objective characteristics of these channels are quite distinct from those of either free-to-air or basic-tier pay TV services. A ‘premium sports’ pay TV service provides live access, often on an exclusive basis, to a specific set of highly-valued key sports events, most notably live FAPL coverage. Two examples of such a service in the UK are the sports channels provided by Sky Sports and Setanta, both of which include live FAPL coverage.

5.27 Our consumer research provides strong indicators that a consumer purchasing a pay TV service which includes premium sports channels is unlikely to regard a non-sports free-to-air service as a close substitute. This is not a surprising result, but it is worth noting some of the specific evidence which supports it. For example:

- 49% of Sky subscribers say that they are either passionate about sport, or that they follow sport closely, as compared to 27% of basic pay TV subscribers, and 29% of Freeview viewers[26];

- Consumers of pay TV are twice as likely as consumers of free-to-air TV to spontaneously cite sports channels as an important genre (25% as compared to 12%)[27];

- Of those consumers who purchase both premium sport and premium movies from Sky, 47% state that they mainly want Sky Sports, and take the movie channels because of the low additional cost, whereas 23% state that they mainly want Sky Movies, and take the sports channels because of the low additional cost. Another 23% attached equal value to sports and movies[28].

5.28 A more subtle question is whether sufficient sports content is available free-to-air to significantly constrain the prices charged for pay TV premium sports. We acknowledge in this context that high quality sports content is certainly provided on free to air channels. Indeed, five of the six most important sports events deemed by customers to be “must have” are required by ‘listed events’ regulation to be available either in whole, or in part on free to air TV[29]. These are however relatively short one-off events, which might generate significant viewing figures for a brief period, but not on an ongoing basis. In contrast, the FAPL is the only one of these ‘must have’ events with matches scheduled regularly throughout most of the year, and therefore capable of forming the basis of a premium sports channel.

5.29 The uniqueness of FAPL in particular as compared to other sports events is illustrated most clearly by the commercial valuations which wholesale channel providers attach to the different rights packages. These are discussed in some detail in Annex 10. FAPL is by some distance the most valuable of sports rights, selling for £669m per year. This is over six times the revenue generated by the next most valuable set of rights, the FIFA World Cup (£110m), which in any case only takes place every four years. The other significant football rights which are annually available (FA Cup and England home internationals, Football league and Carling Cup, Champions League, UEFA European championships) generate £334m between them, roughly half of the revenue generated by FAPL. The most significant non-football sports rights are the 2012 Olympics (estimated at £71m) and English cricket (£52m). These relative valuations (even when adjusted to take account of the volume of programming related to each event) suggest that wholesale channel

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[26] Ofcom pay TV research, phase 3, see Annex 14

[27] Ofcom pay TV research, phase 1, see Annex 14

[28] Ofcom pay TV research, phase 3, see Annex 14

[29] The football World Cup, European Championships and Wimbledon are all available free to air in their entirety, while the FA Cup and UEFA Champions League are shared between pay and free to air TV. Only the FAPL is broadcast exclusively live on pay TV.

providers such as Sky and Setanta do not regard any other sports rights package as being a close substitute for FAPL.

5.30 The other key distinction between free to air sports and premium sports relates to the quantity of programming available. A subscriber to Sky Sports would have access to around 14,000 hours of sport during Q3 2007, while only 3,400 hours of sports programming were available free to air on DTT. Of these 3,400 hours, around 2,100 hours relate to Sky Sports News, one of the channels that Sky is seeking to withdraw from Freeview. If this withdrawal takes place, a subscriber to Sky Sports will then have access to over ten times the amount of sports programming than is available free to air.

5.31 We have used our consumer research to apply the hypothetical monopolist test to premium sports services, with Sky Sports channels as the focal product. Our key conclusion is that consumers respond to a SSNIP on Sky Sports either by switching to Setanta, or by dropping an element of their current service. Setanta therefore appears to be the closest substitute to Sky Sports, and we identify no other close substitutes. The specific evidence which supports these conclusions is:

- 9% of consumers (with both Sky Sports and Sky Movies) surveyed suggested that they would switch to Setanta in response to a SSNIP (including 3% who would drop their movie channels as well as switching their sport channels)[30].

- 5% of consumers (with both Sky Sports and Sky Movies) stated that they would drop movies.

- Other consumers (with both Sky Sports and Sky Movies) stated that they would respond to a SSNIP by dropping Sky Sports. 7% of consumers would drop just Sky Sports, and continue purchasing basic-tier plus movies, whilst 4% would drop down to basic-tier TV services.

5.32 At face value, these results might be interpreted as evidence that basic-tier TV services are a close substitute for Sky Sports, but they could also indicate that prices are already set at a level which extracts the maximum willingness to pay from consumers, and that the consumer response to a further price rise is to stop purchasing the product (cf the cellophane fallacy).

5.33 We have also considered how prices and consumption levels have changed over time. While there are always challenges in interpreting historic data of this sort – especially where there may have been changes to the underlying quality of the products – evidence provided by stakeholders suggests that subscriber numbers have grown even as the prices of premium sports packages have risen steadily in real terms since 2000.

5.34 Our conclusion from this assessment is that there is likely to be a narrow retail market for premium sports channels. This market includes the Sky Sports channels and is also likely to include Setanta Sports.

5.35 At the wholesale level, we also conclude that there is a narrow market for premium sports channels. This is for three reasons:

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[30] Ofcom pay TV research, phase 3, see Annex 14

- First, demand side substitution does not appear possible – a retailer could not respond to a SSNIP on premium sports channels by switching to an alternative provider of such channels, since the only two providers are Sky and Setanta.

- Second, supply-side substitution also appears unlikely since the exclusivity, duration and staggered nature of key sports rights contracts make it impossible for an existing wholesale channel provider to switch quickly into premium sports programming.

- Third, while there may be an indirect constraint on a wholesale provider of premium sports channels from final consumers, this constraint will be weaker than the constraint at the retail level because the wholesale price is only component of the final consumer price. Since we have already concluded that the retail level constraint is unlikely to be sufficient to constrain retail pricing, it will also be insufficient to constrain wholesale pricing.

Premium movie channels

5.36 As with premium sports, in reaching our conclusion on **premium movie** channels we note firstly that the objective characteristics of these channels are quite distinct from those of either free-to-air or basic-tier pay TV services. The primary characteristic of a 'premium movies' pay TV service is that it provides access on a subscription basis to first-run movies from the six major Hollywood studios. The only example of such a service in the UK is Sky Movies, which has exclusive access to this content.

5.37 There are broadly three different types of product which might be regarded as substitutes for such a service:

- Pay per view movies services, which allow viewers to view the same movies as are available on a subscription service, because of the fact that the pay per view and subscription pay TV distribution windows overlap.

- DVDs, which also allow viewers to view the same movies as are available on a subscription service, because of the fact that the DVD and pay TV distribution windows overlap.

- Broadcast services which allow viewers to see different movies, either from later distribution windows or from minor studios. Most such services are likely to be advertising-funded free-to-air services, but this category also includes some subscription services (e.g. Picturebox) which exploit rights from later distribution windows than the main pay TV window.

5.38 In relation to the question of whether pay per view movies are a close substitute to pay TV subscription services, we note that:

- 63% of consumers of pay TV subscription services regard the ability to pay monthly as either 'must have' or 'nice to have'[31]. Such consumers are unlikely to regard a pay per view service as a close substitute

- Wholesale revenues for films in the subscription pay TV window were estimated to be £313m in 2006, as compared to total wholesale revenue for all on demand

[31] Ofcom pay TV research, phase 2, see Annex 14

services of £54m[32]. This suggests that wholesale channel providers do not currently see on-demand services as being a close substitute for subscription pay TV services.

5.39 In relation to the question of whether other movies, either from later distribution windows or from minor studios, are close substitutes to pay TV subscription services, we note that:

- 72% of consumers of pay TV subscription services value access to new films, whilst 83% value the convenience of access to a range of films[33]. Such consumers are unlikely to regard a service which is limited to later release windows or minor studios as being a close substitute.

- Wholesale revenues for films in the later free-to-air distribution window are £199m, significantly lower than the revenues cited above as being associated with the pay TV window (£313m). This suggests that wholesale channel providers do not see movies in later distribution windows as being a close substitute for movies in the pay TV window.

5.40 In relation to the question of whether movies distributed via DVD are close substitutes to pay TV subscription services, we note that:

- The wholesale revenues associated with pay TV are substantially exceeded by those associated with DVD rights £1,104m[34]. This certainly illustrates the commercial significance of DVDs at the retail level.

- However, 70% of consumers of pay TV subscription services value films being available at all times[35]. Such consumers clearly value the convenience of a broadcast subscription service, and are unlikely to regard a DVD purchase or rental as being a close substitute.

- Over the last few years sales of pay TV packages including premium movies have increased by **[✂]** per annum despite large reductions in the price of DVDs and the rapid growth of DVD sales. This suggests that the retail price of DVDs is not constraining the retail price of pay TV packages including premium movies.

- To the extent that the sale of DVDs does constrain retail pay TV services, this will at most result in an indirect constraint on the wholesale prices for movie channels. This is because a retail pay TV provider purchasing wholesale premium movie channels might credibly respond to a price increase by switching to other wholesale movie channels, but not by switching to DVDs.

5.41 We have used our consumer research to apply the hypothetical monopolist test to premium movie services, with Sky Movies channels as the focal product. The biggest

[32] See Screen Digest report for Ofcom at Annex 11

[33] Ofcom pay TV research, phase 2, see Annex 14

[34] See Screen Digest report for Ofcom at Annex 11

[35] Ofcom pay TV research, phase 2, see Annex 14

consumer response to a SSNIP on these movie channels was simply to drop the movie element of the sports/movie/basic package.

5.42 At face value, these results might be interpreted as evidence that basic-tier TV services are a close substitute for Sky Movies. However, the evidence is also consistent with a narrowly defined market for the retailing of Sky Movies packages, where the high level of switching results from prices having been raised above competitive level.

5.43 Indeed one interpretation of the evidence is that many of these consumers are predominantly sports fans, who are prepared to take movies at a relatively low incremental cost, but who will drop this element of the bundle in response to a price increase in relation to any element of the bundle. We note in this context that a significant number of consumers would respond to a SSNIP on sports by dropping movies (see paragraph 5.31)

5.44 We have also considered historic price data and consumer responses to changes in prices. As with sports, we find from evidence provided by stakeholders that prices for premium movies have risen steadily in real terms while subscriber numbers have also continued to rise. While this finding needs to be treated with caution, this evidence of actual consumer behaviour is suggestive of a narrow market.

5.45 Our overall conclusion is that product characteristics, the likelihood that prices are above competitive levels and historic data together suggest that there is likely to be a narrow retail market for premium movies.

5.46 Upstream, we also conclude that there is a narrow wholesale market for premium movies. There is no credible alternative to Sky that would enable a retailer to substitute its demand, and the exclusivity and staggered nature of movie contracts prevents supply-side substitution. Any indirect constraint from the retail level would also be insufficient to suggest broadening the market.

Basic and free-to-air

5.47 Our assessment of the constraint imposed on basic-tier pay TV by free-to-air TV focuses on stand-alone basic packages – i.e. those that do not include premium sports or movies. This is because these are the only packages for which consumers' response to a change in price of basic content can be directly observed. However, we note that the basic-tier pay TV service is an entry-level product, which consumers often need to purchase in order to obtain the possibility of purchasing premium pay TV content. This means that the overall demand for basic pay TV services is, in part at least, derived from the demand for premium pay TV content.

5.48 In reaching our conclusion on stand-alone **basic and free-to-air** channels we note that there are characteristics which distinguish these, but that this distinctiveness is being eroded by the growth of Freeview:

- The primary characteristic of stand-alone basic-tier pay TV services is that they provide a wide range of general entertainment and themed channels, at a price of £21 for the most popular package. This has historically represented a distinctive product offering as compared to free-to-air services, which offered a relatively limited choice of Public Service Broadcasting channels.

- This distinction has been eroded in recent years by the growth of digital free-to-air services. Since the launch of Freeview in October 2002, consumers have had access to an increasing number of FTA channels. This means that there are clear similarities between the entry-level pay TV offerings from Sky and Virgin, and the free-to-air services provided by Freeview.

5.49 In determining whether products that offer similar but not identical product characteristics are economic substitutes we need to understand in more detail what are the characteristics that consumers particularly value, and are thus prepared to pay for.

- Our consumer research suggests that a quarter of pay TV consumers (26%) regard access to a range of channels as an important element of their current service[36]. An earlier 2005 Ofcom study, found that range of channels was the most important factor, when considering a purchase for Sky customers (42%), and for cable customers (25%)[37]. It is plausible that such consumers would not regard Freeview services as a substitute for basic-tier pay TV services given the lower number of channels available. Most pay TV consumers also cite other factors, such as access to premium content as key to their take-up of services. However, this may be of limited relevance to the demand for stand-alone basic packages.

- If we focus on those consumers whose preferences are most relevant to the demand for stand-alone basic services, i.e. those consumers who purchase only basic-tier services, we find a somewhat different result. Consumer research provided to us by stakeholders indicates that access to more channels was the key driver in choosing pay TV for over half of stand-alone basic-tier subscribers. This does indicate that the ability to choose between a significant number of basic channels is important for those consumers who only purchase basic-tier services, in which case Freeview might not be regarded as a close substitute.

- Additionally, there are some specific pay TV channels (Sky 1, UK Gold, Discovery[38]) and programmes which are cited by a significant number of consumers of pay TV as being important. It is possible that these consumers would not regard other free-to-air services as being a close substitute.

5.50 Using our consumer research we have sought to understand how consumers would respond to a hypothetical SSNIP. When asked the SSNIP test question directly, 17% of stand-alone basic-tier customers said that they would switch to free-to-air TV[39]. Taken at face value, this would imply that the relevant market should be widened to include both free-to-air as well as basic TV services. However, as noted at paragraph 5.12 above, such figures need to be interpreted with caution. In addition to using our own analysis, we have also received the results of a survey carried out by a stakeholder, although we have not seen the underlying data from the survey. It used a different approach to our own and suggested somewhat lower switching rates. In particular it suggested that **[✂]**. On the assumption that cost savings from supplying fewer customers are likely to be negligible (as most costs are fixed) our

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[36] Ofcom pay TV research, phase 3, see Annex 14

[37] Ofcom FA Premier League research, 2005, see Annex 14

[38] Ofcom pay TV research, phase 1, see Annex 14

[39] Ofcom pay TV research, phase 3, see Annex 14

analysis suggests that a price rise may be (just) profitable, and that basic-tier pay TV packages may therefore be in a market on their own.

5.51 We have also looked at historic prices and subscriber numbers. If basic and Freeview were economic substitutes, we might expect basic take-up to be reduced as the Freeview product offering and customer base have grown, and / or an inability of retailers of basic packages to increase prices without losing subscribers to Freeview. There has been an increase in the number of basic subscribers since the launch of Freeview. The real price of Sky's full basic package has also increased since 2002, although prices have been constant in nominal terms since September 2005. The chart also shows that some basic consumers have traded down to cheaper packages since Sky introduced a new pricing structure in September 2005. This may indicate a competitive response to the growing threat of Freeview (and therefore suggest broadening the market), but it could equally represent competitive intensity within the basic-tier pay TV market.

Figure 32 2000 – 2007 Sky basic subscribers and prices (real)

[✂]

Source: Sky

Note: Constant Q3 2006 prices

5.52 On balance, we believe that the evidence suggests that free-to-air and basic are likely to be in separate markets. However, we do not see this as an overwhelmingly strong conclusion, and free-to-air appears to be a close and increasingly strong constraint. We note in particular that:

- In terms of the characteristics that customers value, Freeview provides an increasingly close substitute to basic pay TV services. However, it still cannot match the range of channels which pay TV provides. Consumers who purchase basic-tier services on a standalone basis value this range.

- Consumer survey evidence clearly points to free-to-air services being the closest competitive constraint to the retailing of basic pay TV services.

- The survey evidence on consumer's response to a hypothetical change in prices is inconclusive. There is evidence that consumers would switch service in response to an increase in prices,, but the levels of switching which would occur may not be high enough to point to a broad market.

- The evidence on consumer's actual response to historic changes in price is also inconclusive. Headline prices and subscriber numbers have risen, but so have the number of channels available. We note that since 2005 Sky has marketed different sizes of its basic packages and this may represent a response to greater competitive pressure from Freeview.

Preliminary conclusions on content / channel market power

5.53 We have examined a number of factors in determining whether particular operators are likely to have significant market power. These are laid out in full at Annex 13, and include market shares, barriers to entry and expansion, customer switching and countervailing buyer power.

5.54 Although high market shares do not of themselves imply dominance, there is little evidence that other competitive constraints are significant, with the possible exception of the constraint which free-to-air services provide on basic-tier pay TV services. Our evidence shows that:

- Sky has revenue market shares of **[✂]** (well over 70%) in the premium sports retail market and **[✂]** (well over 80%) in the premium movies retail market, and its market share has increased every year in each of the last five years in both markets. With such a high market share there would normally be a presumption of market power unless there was strong evidence to the contrary, which there does not appear to be. Sky is therefore likely to have market power in the retail market for packages containing premium sports or premium movies channels

- Sky and Virgin have roughly equal market shares in the market for packages containing only basic-tier TV channels, alongside a small number of other very minor players. Coupled with the relatively strong constraint that free-to-air services are likely to place on firms operating in this market, this suggests that neither firm is likely to have market power in the market for stand-alone basic-tier pay TV.

5.55 We note in this context that *total* demand – and particularly Sky's total demand – for basic-tier pay TV services is considerably larger than the demand for stand-alone basic packages because of the derived demand from consumers purchasing premium sports and movies. This may afford Sky a degree of buyer power when negotiating with third party wholesale channel providers, even if it does not have market power in relation to the sale of stand-alone basic-tier services.

5.56 At the wholesale level we conclude that:

- The market for the wholesaling of basic TV channels is fragmented, with no supplier having a subscriber market share in excess of 10%; consequently there are likely to be no market power issues.

- Sky has a share of **[✂]** (well over 80%) in the premium sports content market – Setanta being its only rival – and 100% of the premium movies market. Access to content in both markets represents a very significant barrier to entry, so that there are very limited direct constraints imposed upon Sky. The limited competition in the retail market and the dependence of retailers on Sky for content also suggests that there are very limited indirect constraints on Sky's pricing. Sky is therefore likely to enjoy substantial market power in both the sports and movies markets.

Platform markets

<u>Retail</u>

5.57 The characteristics of alternative platforms appear to be very similar, particularly those that consumers most value, namely the content currently supplied on the platform, and the value-added services supported by the platform. Our consumer research suggested that consumers would be prepared to switch platforms in response to a SSNIP. Virgin Media's consumers in particular appeared to be relatively price-elastic. However, we need to be careful in interpreting such consumer survey evidence, particularly in the light of evidence of actual switching behaviour which appears to be considerably less extensive. Lack of actual switching may be the result of competitive prices, but it can also reflect real and perceived switching costs.

5.58 On balance, the lack of strong evidence of platform-specific preferences leads us to conclude that the alternative retail platforms are likely to compete in the same relevant market.

Wholesale platform market definitions and market power – general comments[40]

5.59 We do not expect to reach any formal conclusions within this market investigation on either market definitions of wholesale platforms or the market power of specific platform operators. The appropriate vehicle for taking forward any concerns which we might identify in relation to platform market power is the TV platform market review.

Intrinsic characteristics of pay TV markets

5.60 We discuss here the various characteristics of the TV broadcasting industry that we consider may be fundamental to its operation. Individually, these characteristics are not unique to broadcasting. However, when taken together they suggest a specific environment and determine a set of incentives on market participants that strongly influence the way in which competition plays out. The characteristics we have identified for consultation are:

- at the **content and production** level:
  - high fixed, but low variable, costs of production;
  - the sale of rights on an exclusive and often cross platform basis, and frequently at a price that is independent of the number of viewers;
  - the staggered availability of rights;
  - the collective selling of sports rights;
- at the **wholesale channel provision** level:
  - the potential benefits to a channel provider from aggregating content of a particular genre into a channel or suite of channels;
  - the licensing of channels to retailers on the basis of a per subscriber charge;
- at the **platform** level:
  - the need for a consumer to purchase specific technology to access content on a given platform;
  - the existence of non-trivial switching costs to switch between retailers on different platforms, especially where the different platforms use different distribution technologies; and

[40] When we refer to “platforms” in this context, we mean TPS platforms, or systems of encryption using the same encryption technology / set-top box standard.

- at the **retail** level:
    - o variety in consumer preferences which enables retailers – and potentially consumers – to benefit from bundling; and
    - o customer inertia and switching costs;

5.61 In the discussion that follows we group these characteristics into three broad areas:

- Those characteristics which relate to the way in which content is aggregated at different points in the value chain
- Those characteristics which relate to the way in which the largely fixed costs of producing content are recovered via the pricing of downstream services
- Those characteristics which relate to barriers to switching, at the platform and retail level of the value chain

Content aggregation

5.62 As summarised in the table below, a number of the characteristics summarised above relate to the way in which content is aggregated at different points in the value chain. This means that a wide variety of content is generated upstream, but is ultimately sold to consumers in a relatively small selection of retail bundles.

Figure 33 Mechanisms for content aggregation

Level of value chain	Mechanism for content aggregation
Content and production	• Collective selling by the owners of sports rights • Selling on a staggered basis and for a fixed duration of key content rights
Wholesale channel provision	• Aggregation of content into wholesale channels and 'bouquets' of channels
Retail service provision	• Retail bundling of wholesale basic entertainment channels into tiered basic entertainment packs • Buy-through as a mechanism for bundling of basic and premium content • Mixed bundling of sports and movies as a mechanism to encourage the purchase of both forms of premium content

5.63 This process of aggregation reflects, at least in part, the observed fact that consumers have widely differing preferences for content. Our consumer research suggests that content is the main driver of consumer choice (87% of consumers cited content as "key", more than any other aspect of their TV service) but also shows that, with the exception of a very limited amount of premium content (and, on free-to-air, some material available via the PSBs), there are very few specific items of content which are valued by large groups of consumers, Instead there is a long tail of content that is highly attractive to some consumers, but of only marginal interest to others. In such circumstances a degree of content aggregation is necessary in order to assemble a credible pay TV proposition.

5.64 However, content aggregation is also important from a competition perspective, because it may provide a means for firms active at particular points in the value chain to monopolise certain categories of content.

5.65 In the following pages we describe the factual basis for each of the market characteristics which relates to content aggregation.

Many sports rights are sold collectively

5.66 Sports organisations frequently sell the rights to a series of events collectively on behalf of the participants in those events. This has the potential to raise competition concerns both in relation to the way in which these are sold (due to the Article 81 prohibition on anti-competitive agreements and practices) and the potential creation of downstream market power

5.67 On the other hand competition authorities have generally recognised that there are particular characteristics of sports which distinguish it from other economic activities, and which may be relevant when considering compliance with competition rules ("Application of EC antitrust rules in the sport sector: an update", EC Competition Policy Newsletter, 2005, vol 3, p.72) ("The EU and Sport: Background and Context", Accompanying document to the white paper on sport, SEC(2007) 935). For example:

- Sport events constitute a contest between a number of clubs/teams or at least two athletes. This degree of interdependence between competing adversaries is a characteristic specific to sport

- If sport events are to be of interest to the spectator, they must involve uncertainty as to the result. This creates a need to maintain a degree of balance between the performance of sporting adversaries. This sets the sport sector apart from other industry sectors, where firms aim to out-perform their competitors.

- Sport fulfils a variety of social aims, which require a redistribution of financial resources from professional through to amateur levels of sport (the principle of solidarity).

5.68 The European Commission has considered the joint selling of football rights in several specific cases: the UK Football Association Premier League (COMP/38.453), the German Bundesliga (COMP/37.214) and the UEFA Champions League (COMP/37.398). The Commission has accepted the joint selling of broadcast rights by football associations on behalf of football clubs (as opposed to the sale of these rights by the individual clubs themselves), provided certain conditions were fulfilled. These include the sale of rights through open and transparent tender procedures, a limitation of the rights' duration (usually not exceeding three years) and the breaking down of the rights into different packages to allow several competitors to acquire rights.

5.69 The following significant sporting events, among others, are sold collectively in the UK:

- FAPL

- UEFA Champions League

- The English and Wales Cricket Board (ECB) sells rights collectively for the ECB cricket matches.

- The Rugby Football Union and Premier Rugby Limited have signed collective TV rights deals for rugby games in the UK and the Republic of Ireland.

Contract rights for key content become available on a staggered basis

5.70 An important feature of content markets is the fact that content providers tend to sell content via multi-year contracts. As a result, rights become available on a staggered basis rather than all at once. This may create barriers to entry, since a wholesale channel provider wishing to launch a new service will typically need to assemble several rights packages in order to be able to do so, and these rights will not all be available at a particular point in time. Indeed, it may take several years to assemble the various rights packages necessary to launch a new service.

5.71 We have reviewed a number of contracts governing the supply of content rights to wholesale channel providers. We find that:

- Many sports contracts have durations of between three and five years, meaning that in any given year, only 20-30% of key content is likely to be available for purchase. This creates a potential barrier to entry for a wholesale channel provider wishing to launch a new premium sports channel, since whilst it might be possible to launch a premium sports service based on just one rights package, such as FAPL, it is more likely for scheduling reasons that a wholesale channel provider will wish to assemble various rights packages.

- We understand that Sky has relationships with the six major Hollywood studios for the subscription pay TV window which go back (at least) several years. The subscription window contracts are not awarded by the studios under a transparent tender process. The contracts do not tend to come up for renewal at the same time, so that they could be contestable only on a staggered basis over the course of the next few years. This creates a potential barrier to entry for a wholesale channel provider wishing to launch a new premium movies channel containing content from more than one or two studios.

5.72 A similar effect can be observed downstream, in relation to the contracts which govern the supply of wholesale channels to retail service providers. These contracts tend to be for anything from three to eight years, suggesting a barrier to entry for any new retailers wishing to assemble a selection of the top channels.

Wholesale channel providers aggregate substitutable content

5.73 As described above, wholesale channel providers aggregate content into channels or suites of channels. Where they can aggregate all closely substitutable content of a particular type, this may enable them to establish a degree of market power at wholesale channel provision level.

5.74 The extent of this market power depends on the scope of the market. It is likely to be most significant where a channel provider has managed to aggregate all close substitutes within a narrow content market. The most obvious areas of concern are premium sport and premium movies, which are likely to constitute narrow wholesale markets.

5.75 Many basic-tier channels are grouped into ‘bouquets’ of channels, with in some cases multiple bouquets under common ownership. This is illustrated in the figure below, which summarises the ownership of the top 25 most viewed basic-tier channels. There are a small number of channels which are independent of others, but a substantial number of the top channels are owned by a relatively small group of companies. This results in a substantial degree of bundling at the wholesale channel level, for example:

- UKTV has access to the BBC back catalogue. This is likely to be an important category of basic-tier content in the UK market.

- Viacom owns two of the most significant brands in the 'music' genre, MTV and VH1, each of which contains a number of channels.

- Discovery Channel Europe offers a set of channels, including Discovery Channel itself, but also Home and Health, Discovery Turbo and Animal Planet.

Figure 34 Ownership interests in top 25 most viewed basic-tier channels (includes joint ventures)

Channel rank	Channel name	Sky / NewsCorp	Viacom	VMTV	BBC	Time Warner	Sparrowhawk	Discovery	Disney	Other
1	Sky One	✓								
2	UKTV Gold			✓	✓					
3	Living			✓						
4	Hallmark						✓			
5	Disney Channel								✓	
6	UKTV Drama			✓	✓					
7	Sci-Fi Channel									✓
8	Nick Jr	✓	✓							
9	Eurosport									✓
10	Cartoon Network					✓				
11	Sky Two	✓								
12	ABC1								✓	
13	Nickelodeon	✓	✓							
14	Paramount Comedy	✓	✓							
15	Challenge TV			✓						
16	Bravo			✓						
17	Discovery							✓		
18	UKTV Style			✓	✓					
19	Nicktoons	✓	✓							
20	FX	✓								
21	Turner Classic Movies					✓				
22	MTV One		✓							
23	Discovery Real Time							✓		
24	Movies 24						✓			
25	Bravo 2			✓						

Source: operator websites and annual reports

Retail bundling of content

5.76 Details of the main current retail offers in the market are available at Annex 8. This illustrates that there are several mechanisms by which content is bundled at the retail level:

- Basic-tier channels are aggregated into basic-tier packages;

- These are linked to premium content by the use of buy-through;
- Mixed bundling of sports and movies links different forms of premium content.

5.77 As noted above, this use of bundling reflects the fact that consumers' preferences for content are highly variable. Content that is highly desirable for one group of consumers may be of less interest to another. In this context, bundling provides a potential mechanism for retail price discrimination, allowing content rights holders to recoup the fixed costs of content production whilst still distributing to a large number of subscribers. We discuss retail bundling as a mechanism for price discrimination in more detail at paragraphs 5.93 to 5.102 below.

Production costs of content and downstream pricing

5.78 As summarised in the table below, a number of the characteristics of broadcast markets summarised above relate to the manner in which the upstream costs of content production are recovered through downstream pricing.

Figure 35 Pricing mechanisms at different levels of the value chain

Level of value chain	Pricing mechanisms
Content and production	• Production costs are high but do not scale with the number of viewers • Content rights are typically sold for a fixed fee, and on an exclusive cross-platform basis
Wholesale channel provision	• Channels are usually licensed for a per subscriber fee, often with platform-specific exclusivity clauses
Retail service provision	• Bundling and buy-through provide mechanisms for price discriminating among consumers with widely varying content preferences

5.79 In the following pages we describe the factual basis for these characteristics.

<u>Production costs may be high, but do not vary with the number of viewers</u>

5.80 The costs of producing content for television may be high, particularly in the case of premium content. However, these costs do not vary with the number of consumers. Once content has been produced for one particular audience, there are no additional production costs associated with extending the audience to include additional viewers.

5.81 This cost structure creates the standard problem in information economics, in that there is a strong incentive to make content available to as wide an audience as possible, in order to extract the maximum value from it, but the socially optimal price in static terms (with price set at marginal cost) is unlikely to generate sufficient revenue to support continued investment in content[41].

[41] See, for example, the discussions in Hellwig, Martin and Irmen, Andreas, 2001. "Endogenous Technical Change in a Competitive Economy," *Journal of Economic Theory*, 101(1): 1-39.

5.82 The most efficient means of reconciling these considerations is by means of retail pricing structures which involve some form of price discrimination. By effectively charging a higher price to viewers with a higher willingness to pay for the content and a lower price to viewers with a lower willingness to pay, this allows content rights holders to recoup their costs whilst still distributing to a large number of subscribers.[42]

5.83 Bundling is a means of achieving this type of price discrimination. For instance, one consumer may value sports at £10 and films at £2, and another vice versa. Both consumers would buy a joint package priced at £12, generating total revenue of £24, whereas single packages priced at £10 each would only attract those consumers who valued the individual elements at £10, generating total revenue of £20.

Certain key rights are frequently sold for a fixed fee, on an exclusive, and often cross-technology, basis

5.84 Content providers typically seek to sell their content to wholesale channel providers:

- for a fixed fee – i.e. a fee that is independent of the number of consumers to whom the content is eventually broadcast; and
- on an exclusive basis. This exclusivity frequently covers multiple distribution technologies.

5.85 This position is reflected in a number of key sports contracts which Ofcom has reviewed, and across a range of different sports.

5.86 The contracts between Sky and the major Hollywood movie studios also typically include exclusivity clauses that cover the subscription pay TV window across multiple distribution technologies. Payments are primarily made to studios on a per-subscriber basis. The practice of content providers often selling content exclusively and for a fixed fee is consistent with the cost structure of content production. The advantages to content providers of selling on a fixed fee basis are as follows:[43]

- It optimises the incentives on wholesale channel providers to distribute the content efficiently. If content were sold on a per subscriber charge, it would raise

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David K. Levine and M. Boldrin, 2002. "The Case Against Intellectual Property," American Economic Review Papers and Proceedings, 92: 209-212.

[42] See, for example, section 4.3.2.1 of B Nalebuff "Bundling, Tying, and Portfolio Effects: Part 1 – Conceptual Issues", DTI Economics Paper No.1, February 2003, pp 33-37, available from: http://www.berr.gov.uk/files/file14774.pdf, or M Armstrong and H Weeds, "Public service broadcasting in the digital world", 1 August 2005, mimeo, pages 12-14 available from: http://www.econ.ucl.ac.uk/downloads/armstrong/PSB_Armstrong_Weeds.pdf

[43] It is not the case that a fixed fee is *always* the most attractive price structure for the content rights holder. In particular, where rights fees are specified on a per subscriber basis this discourages retail price cutting by retailers. Thus, where the rights holder is particularly concerned about pay TV potentially cannibalising revenues from other income streams, a per subscriber price may be attractive.

the marginal cost for wholesale channel providers, and weaken their incentives to distribute the content widely[44].

- It reduces the short term risk to the content provider since, at least for the duration of the current contract, any adverse shocks to demand that reduce the number of subscribers do not affect the content provider's income. This reduction in short term risk may be attractive where the content provider is risk averse and/or where the revenue from the rights in question accounts for a large proportion of the content provider's income.

5.87 Where content is sold on a fixed fee basis, content providers are likely to prefer to sell on an exclusive basis. If they were to sell on a non-exclusive basis, the first purchaser of the content would face the risk of the content being sold to a second purchaser. This might lead to fierce downstream competition between those two purchasers, which would potentially drive prices down to a very low level (the fixed fee means that the marginal cost of the content for the wholesale channel provider is zero, so prices can fall a long way). This would substantially reduce the amount purchasers would be prepared to pay. Thus, where content is sold on a fixed fee basis, exclusivity is generally a better strategy for the content seller.

5.88 Content providers may also seek to offer rights to a single WCP across multiple distribution technologies, rather than offering technology-specific rights. This is likely to increase the number of potential bidders, increasing in turn the intensity of competition in bidding for the rights, driving up their price[45].

5.89 We note also that larger content providers retain the outside option of going downstream themselves in the event that they are unable to attract sufficiently attractive terms by selling to wholesale channel providers. This suggests that the price of content is likely to lie between a floor and a ceiling. The floor is the price at which the content provider would create its own channel, while the ceiling reflects the intrinsic uniqueness value of the content itself. The greater the competition between wholesale channel providers, the closer the price is likely to be to the ceiling.

<u>Channels are usually licensed on a per subscriber basis, often with distribution technology-specific exclusivity clauses</u>

5.90 A stand-alone wholesale channel provider will typically profit maximise by distributing its content as widely as possible subject to the wholesale price being sufficiently high.

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[44] This is an example of double marginalisation which occurs where two levels of the supply chain are under the control of producers with a degree of market power and where each producer adds its own above cost mark-up to the price. The retail price of the product is consequently higher than it would be if the two producers were vertically integrated or where the upstream firm sells to the downstream firm on a fixed fee basis.

[45] To illustrate, suppose that bidder X has a willingness to pay of £5m on for the right to use certain content on platform A and £8m for the right to use that content on platform B. Rival bidder Y has a willingness to pay of £4m and £10m respectively for the two platforms. If the content holder sold the rights on a platform specific basis, X would acquire the rights with respect to platform A for a price of just over £4m (which is sufficient to outbid Y on that platform) and Y would acquire the rights with respect to platform B for a price of just over £8m. The total revenue received by the content holder is thus just over £12m. In contrast, if the content holder sold the rights to use the content on both platforms, Y would acquire those rights for a price of just over £13m (which is sufficient to outbid X's overall willingness to pay).

This means that while the content is exclusive at the wholesale level, that exclusivity may not endure at the retail level. There are a quite a number of examples of channel providers licensing their channels to different retailers on different distribution technologies.

5.91 This in turn influences the way in which channel providers price their channels and leads to pricing on a per subscriber basis. Per subscriber charging enables risk sharing between wholesale channel providers and retailers (which encourages efficient channel promotion by the channel provider) and directly addresses the risk for the channel provider of retail prices collapsing to near zero given non-exclusivity[46].

5.92 Although there are examples of channel providers licensing their channels to different retailers on different platforms and distribution technologies, it is common for the contracts for the supply of wholesale channels to contain distribution technology-specific exclusivity clauses.

Retail bundling is used as a mechanism for retail price discrimination

5.93 There are several mechanisms by which content is bundled at the retail level:

- Basic-tier channels are aggregated into basic-tier packages;
- These are linked to premium content by the use of buy-through;
- Mixed bundling of sports and movies links different forms of premium content.

5.94 We discuss these various mechanisms in more detail below, where we also discuss some of the reasons why retailers might bundle content.

5.95 In the context of this section it is also worth noting that retail bundling provides a possible mechanism for price discrimination. The retailer may be better able through bundling of channels to exploit the willingness to pay of consumers with different preferences. We refer again to our example of two consumers with different valuations of sports and film content at paragraph 5.83 above.

5.96 Note that, in this example, bundling means that both consumers purchase both types of content i.e. it expands overall demand. Such an increase in viewers may boost other revenue streams for the wholesale channel provider or channel retailer, such as advertising revenue or channel-related transactions (e.g. gambling, home shopping). The presence of these other revenue streams may thus strengthen the incentives to engage in this form of bundling.

5.97 Bundling may also be more efficient than offering all channels on an à la carte[47] basis for two other reasons. First, bundling might reduce consumer confusion - if consumers had to pick from scores of individual channels they might feel overwhelmed, and buying a bundle secures them a range of content. Second,

[46] Preventing retail prices from collapsing may serve to maintain the price paid to generators of content, ensuring in the longer term that content continues to be generated.

[47] I.e. allowing consumers to pick and choose the individual components of the service they receive.

bundling might result in cost savings (by avoiding transaction costs resulting from multiple consumer purchases).

5.98 Examples of **basic-tier bundling** include the following:

- Sky sells six mixes covering different genres, each of which represents a genre-specific bundle. The pricing of these mixes provides a strong incentive to consumers to purchase all 6 (the stand-alone price of the first mix is £16 per month, the incremental price of each additional mix is £1 per month).

- Virgin sells three levels of service bundles (M, L and XL).

5.99 **Buy-through** refers to the requirement that consumers can only purchase premium content if they also purchase a basic entertainment pack of some form. Premium content is not available on a stand-alone basis. Examples of buy-through include:

- Sky's satellite customers must currently purchase one or more "mixes" (i.e. packages of basic channels) in order to be able to purchase Sky Sports and/or Sky Movies.

- Virgin Media's cable customers must purchase a "Size: M" or larger package of basic channels in order to be able to purchase Sky Sports, Sky Movies or Setanta Sports[48],[49].

5.100 **Mixed bundling** of sports and movies refers to a pricing structure for premium content which prices the bundle of both forms of premium content attractively as compared to the stand-alone price of one form of premium content. For example, as noted above, consumers can purchase all six of Sky's basic entertainment mixes for £21 per month. They can add either premium sports or premium movies to this package for a total of £38 per month, representing an incremental price for this premium content of £17 per month. They can purchase both premium sports and premium movies for a total of £45 per month, representing an incremental price for the additional premium content of £7 per month.

5.101 The way in which these different forms of bundling interact is best illustrated through a practical example.

- A consumer wishing to purchase premium sports from Sky faces an entry-level price of £34 per month. Buy-through means that premium sport is not available on a stand-alone basis, and this entry-level price therefore includes one of the six basic entertainment mixes.

- A consumer who has paid this entry-level price for premium sports has a strong incentive to purchase all six basic entertainment mixes, rather than just one. The incremental price for doing so is just £4 per month, bringing the total price to £38 per month.

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[48] We note that while the "Size: M" package is currently made available to telephony customers for no incremental price, the ability to access premium content is nonetheless contingent on the purchase of some form of bundle (in this case, telephony and TV) from Virgin.

[49] **[✂]**

5.102 The incremental price for adding premium movies to this sports plus entertainment mix is a further £7 per month, bringing the total price to £45 per month. For any consumer wishing to purchase premium content, this ‘top of the range’ bundle is only £11 per month more expensive than the entry-level bundle.

Platforms and retail service provision

<u>Barriers exist for consumers switching between platforms and between retailers</u>

5.103 There are a number of possible barriers to consumer switching, depending on the type of change contemplated. We identify three different types of switching:

- Between retailers on the same platform.
- Between retailers on different platforms, but where those platforms use the same distribution technology.
- Between retailers on different platforms using different distribution technologies

5.104 Switching is relatively simple where a consumer is moving from one retailer to another on the same platform. In such circumstances it will be necessary to enter into a new retail contract, and it may be necessary to obtain a new set-top box smartcard, but no further hardware changes should be necessary.

5.105 The main barriers to switching under such circumstances are likely to be those associated with contractual provisions at the retail level. It is common for consumers to sign up to 12 month contracts for pay TV services. For example, both Sky and Virgin Media require a minimum 12 month contract for new customers. As a result, many new consumers may be unable to change retailer at short notice. This situation may be different for longer-standing customers, for whom the initial contract term may have expired.

5.106 Switching will be somewhat more complex when a consumer is switching between retailers on different platforms, but where those platforms use the same distribution technology, as is the case for the two IPTV-based platforms. In such circumstances consumers wishing to switch retailer may need to change their set-top box, or purchase a new Conditional Access Module (CAM), as well as switching to a new retail contract. A CAM can cost in the region of £50-70.

5.107 Switching will be more complex still when the process of switching between retailers on different platforms also requires consumers to switch from one distribution technology to another. This is a particular issue when switching to or from cable- or satellite-based retailers, because of the customer installation barriers associated with the provision of a new cable connection or satellite dish.

5.108 Switching costs to IPTV- or DTT-based services may however be lower, since both commonly use existing infrastructure. Specifically, consumers switching to DTT will typically be able to use their existing aerial and internal cabling, while consumers switching to IPTV may be able to use an existing broadband connection.

5.109 In addition to the switching costs intrinsic to pay TV, further switching costs may be created due to the bundling of pay TV and other services. For example, BT Vision is only available to consumers purchasing retail broadband from BT, so consumers wishing to switch to or from BT Vision may also have to migrate their broadband service. This may result in additional costs and / or lead time which could discourage switching.

5.110 The costs of platform access to a consumer vary significantly by platform, as do the mechanisms by which consumers pay those costs. The installation charges for consumers wishing to switch to specific services are laid out at Figure 36.

Figure 36 Upfront equipment and installation costs for new pay TV customers

Service provider	Distribution technology	Equipment costs	Installation and connection costs	Notes
Sky	Digital satellite	• £0 basic STB • £99 DVR STB • £299 DVR and HD STB	• £30	• Customers must contract for pay-TV in order to be eligible for broadband and/or land line telephony services
Virgin Media	Digital cable	• £0 basic STB* • £150 DVR and HD STB* • *customers do not own the equipment	• £25 basic • Included in £150 equipment cost for DVR and HD	• Customers must also switch their broadband or landline telephony services to Virgin Media
Tiscali	IPTV	• £0 basic* • *customers do not own the equipment.	• £30 connection fee	• Customers must also switch their broadband and landline telephony services to Tiscali
BT Vision	DTT/IPTV	• DVR and HD STB free to new broadband customers or existing customers re-contracting for original period (otherwise £199) • Home Hub from free to £50 (depending on broadband option)	• £30 connection fee for BT Vision • £60 optional fee for BT Vision if choose to have installation by engineer • No fee for broadband set up	• Customers need a BT land line (but do not need to contract with BT for calls) and must contract for BT broadband services
Top Up TV Anytime	DTT	• £99 for DVR STB	• Installation and connection fees included with STB cost	• N/A

Source: operator websites

Note: correct at 16 October 2007

5.111 To illustrate this further, we set out our understanding of some examples of consumers switching from one service to another:

- **Switching on a platform – Top Up TV Anytime customer to Setanta:** the customer could cancel their Top Up TV service, and contact Setanta to request a viewing card, which would incur a one-off connection fee of £10.

- **Switching between platforms and distribution technologies – longstanding Virgin Media broadband / TV customer to BT Vision[50]:** the customer would incur a £30 connection fee for BT Vision, plus a possible £60 for optional engineer installation. They would need to switch their broadband service from Virgin to BT, which may require a fee of up to £50 for BT's Home Hub depending on the broadband option.

- **Switching between platforms and distribution technologies – Sky TV / broadband customer to Virgin Media[51]:** if currently passed by, but not connected to the cable network, the customer would need to be connected, which would be likely to incur a lead time. Connection would either cost £25 for the basic service, or would be included in a cost of £150 if the customer currently had the Sky+ DVR service and wished to obtain Virgin's V+ DVR service. Since Virgin TV is only available bundled with either telephone or broadband, the customer would need to switch either their broadband only, keeping a BT telephone line, or switch both telephone and broadband.

5.112 Having considered the generic switching barriers, we now document some evidence of actual switching behaviour in the market. As shown in the chart below, our market research suggests lower levels of switching in multi-channel television compared to other communications markets. For example, only 2% of multi-channel television customers say they have switched service provider in the last 12 months, compared to 13% of mobile phone customers.

5.113 The chart also shows that multi-channel customers are less likely to have participated in any 'switching' type activity. Not only have a smaller proportion of multi-channel customers actually switched, but a higher percentage of multi-channel subscribers have not even considered or looked at switching than the equivalent percentage of broadband, mobile and fixed-line customers.

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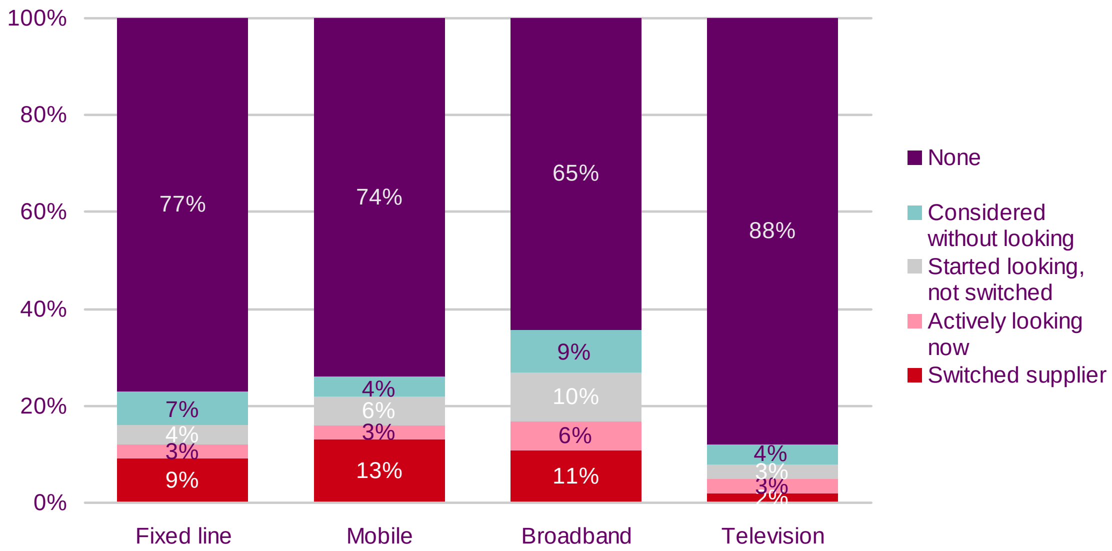
[50] If the customer were still within their initial minimum contract period with Virgin Media, there may be a penalty charge for cancelling the contract.

[51] If the customer were still within their initial minimum contract period with Sky, there may be a penalty charge for cancelling the contract.

Figure 37 Consumer activity by service in past 12 months



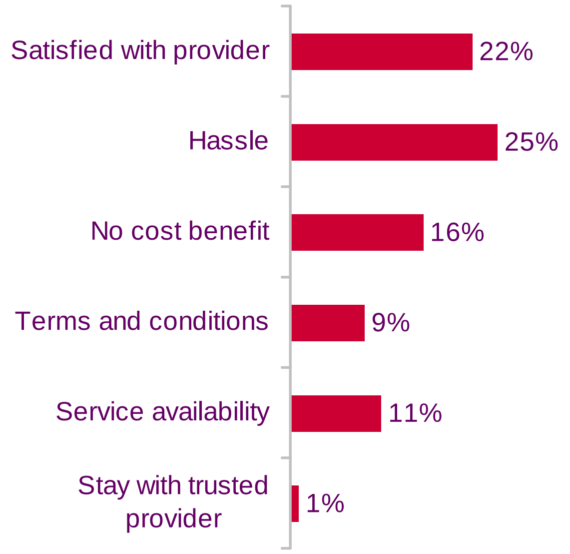
Base: Consumers with each type of service (1,018 Fixed, 1,211 Mobile, 403 Broadband, 800 Multi-channel TV)

Source: Ofcom decision-making survey, 2007

5.114 The main reasons given for not switching multi-channel TV provider by those who have considered it in the last 12 months are set out in Figure 38 below.[52] The most common reason given for not switching TV provider was 'hassle' as mentioned by 25% of respondents. 'Satisfaction with current provider' as a reason for not switching was mentioned by 22% of respondents.

[52] These figures are from a low base of respondents and therefore should be treated with caution and used indicatively.

Figure 38 Reasons for considering but not switching multi-channel TV service provider in past 12 months



Base: Considered and not switched in the last year (60)

Source: Ofcom decision-making survey 2007

5.115 Switching barriers may take the form of specific upfront costs, or contractual restrictions. However, as the information on actual switching demonstrates, switching barriers may consist of less tangible issues like "hassle". What is clear is that both the actual barriers and "hassle" are likely to be greater when switching platforms than when merely switching retailers on a platform, particularly when those platforms use different distribution technologies.

<u>Platforms can be gatekeepers for content providers</u>

5.116 Historically there have been a limited number of platforms in each household. Consumers have tended to subscribe either to cable or satellite, or purchase a Freeview set-top box. As described above, consumers have also been reluctant to switch between platforms. The result is that for any given household, a single platform is likely to act as gatekeeper for content providers wishing to gain access to that household. This situation may be softening somewhat, as households add Freeview or Freesat capability away from the main television set.

5.117 Channel providers will typically wish their content to be accessible to as many households as possible, in order to maximise subscriptions / advertising revenues, and have therefore tended to seek access to every platform.

5.118 There are, however, provisions in some wholesale channel provision contracts which are likely to curb this tendency. For example, an existing purchaser of a channel may have right of first refusal to distribution on additional platforms, or where new channels are set up. Alternatively, the fees the current purchaser pays may be reduced as a result of distribution via other technologies.

5.119 It also appears to be common for pay TV retailers to protect themselves by including provisions which remove the per subscriber fees they pay on their platforms in the case of free-to-air distribution elsewhere.

Vertical integration

5.120 The discussion above describes various characteristics of broadcast markets which we believe to be intrinsic to the way in which broadcast content is produced, aggregated and distributed. These characteristics may interact with and reinforce each other; for example, content aggregation can occur at multiple points in the value chain.

5.121 The way in which these characteristics interact in practice is likely to depend to a significant extent on the structure of firms in the market. In particular, vertically integrated firms are likely to face different incentives to firms that are not vertically integrated.

5.122 Vertical integration is a common characteristic of broadcast markets. This is illustrated in Figure 39, which shows the points in the value chain at which various key industry players are active:

Figure 39 Participation of example companies at different levels of the value chain

	Content generation	Wholesale channel	Wholesale platform services	Retail services
BT Vision			✓	✓
Discovery	✓	✓		
Disney	✓	✓		
MUTV	✓	✓		
Setanta		✓		✓
Sky	✓	✓	✓	✓
Top Up TV			✓	✓
Virgin		✓	✓	✓

5.123 The table highlights several categories of integration:

- Integration of retail and platform operations (Sky, Virgin, Top Up, BT Vision). These companies both operate a platform and provide retail services on that platform.

- Integration of retailing and wholesale channel provision (Sky, Virgin, Setanta). Such companies create channels and suites of channels that they then retail directly to their retail customers. Many also wholesale channels to other retailers, typically on other platforms.

- Integration of retailing, platform operation and wholesale channel provision (e.g. Sky, Virgin Media).

- Integration of wholesale channel provision and content origination (Disney, Discovery, MUTV). These companies produce large quantities of content – sufficient to assemble into their own branded channels.

5.124 Each of these forms of vertical integration may enable firms to exploit synergies between different layers of the value chain and therefore deliver efficiency improvements. There are a number of benefits associated with vertical integration (e.g. reduced transaction costs). Examples illustrating these benefits in the specific context of pay TV include:

- Vertical integration between retail and wholesale platform operations may ensure a close fit between the requirements of consumers and its technical platform offering;

- Vertical integration between retail and wholesale content markets may allow content to be more closely tailored to consumer preferences.

- A wholesale channel provider which is vertically integrated with an incumbent retailer may have an informational advantage because its improved understanding of consumers' willingness to pay allows it better to assess the value of the content rights that it bids for.

- Vertical integration either between retail and wholesale platform operations, or between retail and wholesale content markets, may avoid the efficiency loss associated with 'double marginalisation'. For example, this efficiency loss arises when a retailer purchasing content from a third-party wholesale channel provider does not see the true marginal cost of supplying content to individual consumers, which is close to zero, but instead sees a per-subscriber wholesale subscription charge. Thus the retailer's incentive to make the content widely available is weakened. As a result, the retailer is likely to set higher retail prices and may be discouraged from promoting / advertising the channel. In contrast, a vertically integrated retailer sees the true marginal cost of content.

- Vertical integration of content origination and wholesale channel provision may avoid the transaction costs associated with negotiating agreements to supply both content rights and the rights to market and assemble a channel using the content originator's brand.

5.125 Vertical integration may also change the incentives on firms which determine how they transact with one another. This is because a vertically integrated firm will also take into account the impact of its actions at one level of the supply chain on other parts of its business. It is also useful to distinguish between the shorter term and longer term impacts of a particular course of action (the latter are sometimes referred to as "dynamic" incentives).

5.126 To illustrate, consider a firm which is vertically integrated between wholesale and retail markets. Absent regulation, that firm may have an incentive to provide wholesale content in a manner which favours its own retail operation, where the downstream market is not perfectly competitive. For example, it might refuse to supply other retailers with key content or supply them with key content on less favourable terms:

- In the short term, by making rival downstream retailers relatively less attractive, this conduct may encourage some consumers to switch from those rivals to the vertically integrated firm.

- There may also be some longer term benefits for the vertically integrated firm. For example, if that downstream rival is also constraining the price of other content retailed by the vertically integrated firm, by weakening or eliminating that rival, the vertically integrated firm may be able to increase the retail price of that other content.

5.127 Another example of longer term incentives might be a desire to eliminate a rival retailer that is also active at the content acquisition level. By weakening or eliminating that rival, this may reduce degree of competition between buyers of content rights. This might allow the vertically integrated firm to acquire content for a lower price in the future.

5.128 It is important to recognise that such conduct is not *necessarily* profitable for a vertically integrated firm. Indeed the incentive for a vertically integrated firm to weigh up the impact of its actions at one level of the supply chain on other parts of its business exists for all vertically integrated firms. We consider that the important question is whether, in the particular circumstances of the pay TV industry, it is profitable for vertically integrated firms to engage in conduct that adversely affects competition.

5.129 We discuss these issues further in the next section. However, 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. As discussed earlier in this section, the wholesale markets for TV channels are characterised by an element of market power.

Consultation questions

11. What is your view on our approach to defining markets?

12. Do you agree with our definitions of premium content markets?

13. Do you agree with our preliminary conclusions on basic / free-to-air markets?

14. Do you agree with our assessment of market power?

15. Have we identified the correct set of intrinsic market characteristics? Are there any that you would add?

16. Have we correctly captured the role of vertical integration?

Section 6

Operation of the market

Introduction

6.1 We described in the previous chapter a set of intrinsic observed characteristics of TV markets which may be individually important. We also noted the potential importance of vertical integration, because of the incentives it can create, and the potential importance of market power in providing firms with the ability to act on these incentives.

6.2 In this chapter we consider hypotheses for the ways in which these characteristics might lead the market to operate. Our starting point for all these hypotheses is that there is a tendency to aggregate content because aggregation increases the value of that content to suppliers and, in certain circumstances, to final consumers too.

6.3 In what follows we first discuss bundling *per se*. We then discuss the various types of market outcome which could cause us competition concerns. We divide these broadly into possible concerns about the short-run operation of the market and the long-run operation of the market. We recognise that, in practice, there is a degree of overlap between these two categories.

6.4 We first consider the short-run operation of the market in terms of ongoing competition between firms which are already present in the market, particularly with reference to access to premium content:

- Do vertically integrated operators have the incentive and ability to prevent downstream competitors' access to content?

- Do vertically integrated operators have the incentive to supply reduced quality and / or quantity of content to downstream competitors?

6.5 We then consider the short-run operation of the market with reference to basic content:

- Does the use of buy-through restrict competition in the provision of basic retail services?

6.6 Finally, we look at the long-run operation of the market, in the context of potentially disruptive development of new technologies, and potential for significant levels of market entry:

- Are there significant barriers that prevent entry into the wholesale channel provision market? Is there a risk of foreclosure?

- Do vertically integrated operators have the incentive and ability to foreclose potential new retailers and / or platform operators by denying them content?

Aggregating content increases its value

6.7 We have already noted the extent to which content is aggregated at different points in the value chain. A key determinant of whether such aggregation is likely to be good or bad for total welfare is whether or not the different items of content which are being aggregated are close substitutes for each other:

- Where content that is not closely substitutable is aggregated, this can expand output and may be beneficial.

- However, when substitutable content is aggregated, this reduces the potential for competition and potentially allows the extraction of monopoly rents.

6.8 Aggregating content (regardless of whether or not it is closely substitutable) is likely to increase its value to suppliers. This means that 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. It could therefore be able to pay more for those rights.

Aggregation of content that is not closely substitutable

6.9 As previously noted, consumers have widely varying preferences for content, and this means that there are likely to be benefits associated with the aggregation of content that is not closely substitutable. Aggregation of such content in the hands of one supplier facilitates bundling at the retail level. Bundling can allow retailers to sell more content, at different price points, to a wider range of consumers. For example, bundling can effectively allow a retailer to charge a high incremental price for content to a consumer that has a high willingness to pay but a low incremental price to a consumer that has a low willingness to pay. We illustrated this earlier with the example of two consumers, one of whom values sport at £10 and films at £2, and the other vice versa, where a bundled price of £12 will allow both to purchase, as opposed to a stand-alone price of £10. This type of bundling can frequently lead to an expansion of output and efficiency gains.

6.10 Our level of potential concern with bundling and price discrimination will depend on the particular circumstances. In particular:

- In a situation where marginal cost of distribution is low, such bundling practices are likely to offer overall efficiency benefits, because additional consumers can be brought into the market at little incremental cost.

- If these practices take place in the context of a competitive market, they are likely to promote consumer welfare.

- In a situation where there is market power, such practices may still result in increased efficiency. However, much of the benefit is likely to accrue to the producer, away from the consumer.

- In a situation where the market power can be leveraged into other markets it is likely to produce additional competition concerns without any compensating efficiency benefits.

Aggregation of content that is closely substitutable

6.11 Where a single entity can aggregate, on an exclusive basis, the majority of closely substitutable content, that entity may be able to ensure that retail prices for that content rise above competitive levels, even if there is effective competition at the retail level. This ability to raise prices above the competitive level is likely to produce an incentive for firms to seek to aggregate closely substitutable content into a single channel or set of channels. It is useful to distinguish between aggregation due to coordination between suppliers (horizontal) and aggregation by purchasers (vertical):

- **Horizontal**: absent regulatory intervention, there are likely to be incentives on firms at the same level of the supply chain to aggregate their rights because it may lessen competition between them. In these circumstances, a significant proportion of the profit associated with content aggregation is likely to accrue to the firms involved. One example is FAPL, where most clubs appear to have an incentive to aggregate their various rights.

- **Vertical**: aggregation can also occur as an outcome of the competitive process of bidding for rights, without any horizontal coordination between content rights holders. For example, a wholesale channel provider that is seeking to accumulate exclusive rights to packages of subscription movie rights from all studios is likely to outbid a rival wholesale channel provider that only wishes to acquire rights from one or two studios. This is because a firm which has aggregated substitutable rights in this way is likely to possess a degree of market power and can thus pay more for the underlying rights.

6.12 There may be detrimental effects to consumers of aggregating substitutable content, in the form of prices being raised and output potentially restricted. These effects are likely to be greater when that content sits within a relatively narrow economic market, such as the markets for premium sport and movies which we discussed in section 5. Aggregation of closely substitutable content may still occur within a broader market, such as the market for ‘basic-tier’ channels, but is less likely to create a competition concern.

6.13 We suggest that a significant proportion of the monopoly rents associated with aggregation of closely substitutable content is likely to flow up the value chain to those involved in the original aggregation of that content. More specifically:

- Where content is aggregated as a result of horizontal coordination between suppliers at the same level of the supply chain (e.g. FAPL), the level of competition among purchasers of that content (e.g. among wholesale channel providers) will influence the allocation of the aggregate value of that content between the content provider and wholesale channel providers. The greater the competition between purchasers, the more likely it is that the content provider will be able to extract more of the aggregate value of the content.

- Where content is aggregated by a purchaser acquiring a portfolio of rights from different suppliers (e.g. a single wholesale channel provider accumulating movie rights from multiple studios) the split of the value of that content between suppliers and the aggregating purchaser will depend on their particular circumstances. The relative bargaining position of the parties will depend on factors such as the consequences if they fail to strike a deal (e.g. where failing to strike a deal is very damaging for the content supplier but less damaging for the wholesale channel provider, the wholesale price may be relatively low) as well as their relative bargaining skills.

Effect of aggregation on competition

Competition at the wholesale level of the value chain

6.14 The above discussion suggests that:

- Content aggregation may lead to the creation of market power in relation to certain categories of premium content, which may lie in narrow wholesale markets, in particular premium sports and movies.

- There may be an incentive for this aggregation to take place as far upstream as possible. We observe that most aggregation of premium content takes place in the upstream markets for content rights and for wholesale channels.

- Any associated monopoly rents are expected to flow upstream to those involved in the aggregation. Thus, although aggregation will affect retail pricing, it may be unlikely to result in excessive profits being generated by retail pay TV providers. Indeed, depending on the relative negotiating strength of content rights holders and buyers, it may not result in excess profits at the wholesale channel level either (because any monopoly rents accrue to the rights holders).

6.15 An important corollary of the above is that even where premium content is made available to all retailers, and there is effective competition at the retail level, this competition may not drive the retail price of the premium content down to the competitive level. By setting a high wholesale price for the premium content which is supplied to all retailers, a wholesale channel provider with market power may be able to maintain high retail prices.

6.16 Aggregation of basic content is also likely to take place, but is less likely to lead to the creation of market power. Wholesale markets for basic content are relatively broad, making it considerably more difficult for one wholesale channel provider to aggregate all the basic content which might be regarded as substitutable.

Competition at the retail level of the value chain

6.17 Competition at the retail level of the value chain is also likely to be strongly influenced by content aggregation. This may be the case even where premium content is made available to all retailers on each platform. Under such circumstances there might be a tendency for one retailer to emerge as the primary retailer on that platform, simply because once one retailer has a larger portfolio of basic content, bundling efficiencies allow that retailer to ‘outbid’ any other potential retailers for additional pieces of content.

6.18 This tendency may be strengthened by the first-mover advantage conferred on the incumbent by its existing retail customer base. Switching barriers, as discussed in chapter 5, mean that a potential new entrant without that existing base would have to bid for content in the knowledge that a proportion of the incumbent’s retail customers would not switch to the new entrant’s offer to follow that content. This may restrict the new entrant’s ability to match the incumbent’s bid for the content.

6.19 The scale of the advantage conferred on a particular retailer by bundling efficiencies is however unclear. It is likely to depend on several factors, including:

- The point at which bundling efficiencies become exhausted. There may come a point at which adding a further channel to an existing bundle will not further increase the range of content contained within the bundle, and therefore will not further increase consumers’ willingness to pay.

- Whether the optimum size of a content bundle implied by the above is greater or less than the total amount of content available from wholesale channel providers, and the total transmission capacity of a pay TV platform. If bundling efficiencies become exhausted before wholesale content and platform capacity become exhausted, then multiple retailers may be able to co-exist on a platform.

6.20 We noted in paragraph 6.10 above that the bundling of content in circumstances where there is market power may still result in improved efficiency, even though much of the benefit of this increased efficiency is likely to accrue to producers rather than consumers. The bundling efficiencies described above, to the extent that they result in the creation of market power, are likely to fall into this category. It may be appropriate for a regulator to intervene in order to ensure that a greater proportion of the benefits of content aggregation flow through to consumers, but there is a significant risk that any intervention will also reduce efficiency.

6.21 However, we also noted in paragraph 6.10 that where content aggregation results in the creation of market power, which can then be leveraged into other markets, it is likely to produce additional competition concerns without any compensating efficiency benefits. Such leverage is likely to be of particular concern from a competition perspective.

6.22 We note in this context that the tendency for one retailer to emerge as the primary retailer on each platform is likely to be significantly strengthened where premium content is licensed exclusively to one retailer on a given platform. Having sole access to premium content on a platform is likely to confer significant strength of portfolio on such a retailer. In these circumstances platforms may be prone to “tipping” – i.e. once one retailer has emerged as predominant, it is likely to be extremely difficult for a competitor to displace it.

6.23 Competing retailers may still be able to compete in the provision of certain types of basic content, especially where this basic content is highly valued by a specific niche audience (e.g. the provision of foreign channels, or children’s channels). However, even this form of potential competition may be restricted if the retailing of premium content is made formally dependent on the retailing of basic content via the mechanism of buy-through. In such circumstances a retailer of stand-alone basic content may find that their addressable market is restricted to those consumers who do not take premium content.

6.24 Given this discussion, and given also the importance of vertical integration in pay TV, the extent to which retail competition is affected by content aggregation is likely to depend on two factors:

- **The vertical relationship between wholesalers and retailers of premium content**. The level of competition between retailers of premium content is likely to depend on what premium content is made available to them by wholesalers, and on what basis. This question is likely to be particularly relevant 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.

- **The horizontal relationship between the retailing of premium content and the retailing of basic content.** The level of competition between retailers of basic content is less likely to depend on what basic content is made available at the wholesale level, given that aggregation of basic content at the wholesale level is unlikely to create market power. However, retail competition in basic content may still be restricted if there is a strong linkage at the retail level between the sale of premium and basic content, due to mechanisms such as buy-through.

6.25 The table below summarises the possible outcomes that may arise from different combinations of these factors. The rows in this table reflect different scenarios, which vary according to whether the vertically integrated firm makes its premium content available to other retailers, and whether buy-through is enforced at the retail level. The columns in this table summarise the models of competition that might result, both between retailers on the same platform, and between retailers on different platforms.

Figure 40 Scenarios for content availability and potential outcomes for competition

Extent of bundling / availability of content	Prospects for competition between retailers on the same platform	Prospects for competition between retailers on different platforms
• **Premium content made available to all retailers**	• Retailers on the same platform can compete by providing bundles containing premium content, and differentiating on basic content	• Retailers on different platforms can compete by providing bundles containing premium content, and differentiating on basic content and / or platform characteristics
• **Premium content not made available to other retailers** • **No buy-through from the vertically integrated firm's basic channels enforced**	• Retailers on the same platform compete by providing bundles of stand-alone basic content	• Retailers on different platforms compete by providing bundles of stand-alone basic content, and differentiating on platform characteristics • Unless consumers subscribe to multiple platforms, market may be restricted to consumers who do not purchase premium content
• **Premium content not made available to other retailers** • **Buy-through from the vertically integrated firm's basic channels enforced**	• Retailers on the same platform compete by providing bundles of stand-alone basic content • Market may be restricted to consumers who do not purchase premium content	• Retailers on different platforms compete by providing bundles of stand-alone basic content, and differentiating on platform characteristics • Market may be restricted to consumers who do not purchase premium content

6.26 In what follows we discuss in more detail the incentives which might determine which of these theoretical outcomes is realised in practice. We first consider the short-run operation of the market, in which established firms compete with each other, and we then consider longer-term dynamic effects, associated with new market entry.

Short-run operation of the market – access to premium content

6.27 In this section we consider whether there may be concerns under the hypotheses outlined above relating to ongoing competition between firms which are already present in the market.

- Do vertically integrated operators have the incentive and ability to prevent downstream competitors' access to content?

- Do vertically integrated operators have the incentive to supply reduced quality and / or quantity of content to downstream competitors?

- Does the use of buy-through restrict competition in the provision of basic retail services?

Do vertically integrated operators have the incentive and ability to prevent downstream competitors' access to content?

6.28 We explain above why we think content aggregation is an important characteristic of TV markets and that there appears to be an incentive for aggregation to occur. Much of the aggregation which we observe, especially in relation to premium sports and movie content, occurs at the content production and wholesale channel levels of the value chain.

6.29 However, where a wholesale channel provider has successfully aggregated content or acquired a set of aggregated content on an exclusive basis, it may nonetheless seek to license its channels to multiple retailers. In other words, monopolisation of content at the wholesale level does not necessarily imply a lack of competition at the retail level.

6.30 We suggest that whether a wholesale channel provider does in practice license its channels to multiple retailers may depend on the balance between the following types of incentive:

- There is an incentive to license channels to multiple retailers because it is likely to increase the number of consumers who subscribe to that content. The potential number of subscribers is clearly relevant to the amount retailers are willing to pay wholesalers for that content. In addition, advertising revenues are typically based on the number of advertising impacts delivered and will thus be increased by making channels available to all retailers.

- Whilst licensing channels on an exclusive basis to specific retailers will reduce the number of subscribers to that content, it might increase the amount earned per subscriber if:

    - Retailers are able to exploit this exclusivity to strengthen their position in the retail market. By using their access to content to persuade consumers to switch to their service. This may allow the retailer to sell other services to those consumers; and

    - There is a mechanism for the wholesale channel provider to share in the benefits associated with retail exclusivity. Such a mechanism clearly exists for vertically integrated wholesale channel providers and retailers. A mechanism also exists in the absence of vertical integration, in that a third party channel provider can share the benefits of retail exclusivity by including an exclusivity premium in their per subscriber subscription charge.

6.31 To explain these issues consider the following illustrative example. Suppose that vertically integrated firm X both wholesales premium content to rival retailer Y as well as retailing premium and basic content direct to final consumers. The table below sets out X's costs and revenues at the wholesale and retail level.[53]

[53] The illustrative example in Figure 41 assumes that retail prices would not change if X withdrew its premium content from Y. In practice, this may not be the case. For example, if X no longer supplies Y then this increases the incentive for X to 'poach' customers from Y (in contrast, where X supplies Y

Figure 41 Costs and revenues facing a hypothetical vertically integrated supplier

Item no.	Description	Amount
(1)	X's annual wholesale revenue per Y subscriber from supplying premium content to Y	£230
(2)	X's annual advertising revenue per subscriber to its premium content	£15
(3)	X's retail revenue per subscriber from supplying basic and premium content to its subscribers	£440
(4)	X's annual variable cost per subscriber to its premium content (e.g. rights payments to movie studios)	£35
(5)	X's annual variable cost per subscriber to basic content (e.g. payments to third party basic wholesale channel providers)	£30
(6)	X's annual cost per subscriber of providing its subscribers with access to its retail content (e.g. set-top box, installation)	£70

6.32 By wholesaling its premium content to Y, X earns a margin of £210 per subscriber on Y (i.e. items (1) plus (2) minus (4)). However, if X refused to supply its premium content to Y, some Y subscribers that previously purchased that premium content but can no longer do so might switch to X. For those subscribers that switch, X will be able to retail them both its premium channels and basic channels. In the above example, X's total margin on retail subscriptions is £320 (i.e. items (3) plus (2) minus (4), (5) and (6)). It is thus profitable for X to refuse to supply its premium content to Y if more than 66% of the customers that would otherwise subscribe to Y to obtain that content instead switch to X (Sky referred to this percentage as the "critical diversion ratio").[54]

6.33 The lower the critical diversion ratio, the more plausible it is that a vertically integrated wholesaler-retailer will wish to refuse to supply its content to rival retailers. We suggest that this ratio will tend to be lower when:

- The retail margin is high, for example:
    - Where the relationship with the consumer enables the retailer to earn significant additional profits from other products and services such as through bundling (see items (3) and (5) in the above table). Thus, where the wholesale channel provider's retail business benefits from substantial

then, whenever X poaches a customer from Y, it foregoes the wholesale margin that it would have earned on its premium content). As a result, were X to refuse to supply Y, then X might also reduce its retail prices. This, in turn, may diminish the attractiveness of refusing to supply Y. The incentives facing a vertically integrated firm are discussed in pages 18-22 of H. Weeds "TV Wars: Exclusive Content and Platform Competition in Television Broadcasting", 31 March 2007, mimeo available from: http://privatewww.essex.ac.uk/~hfweeds/TV%20exclusivity_Mar%2007.pdf . Similarly, Sky cited D. Harbord and M. Ottaviani "Contracts and Competition in the Pay TV Market", 2001, mimeo.

[54] Dividing X's wholesale margin (£210) by its retail margin (£320) gives 0.66 or 66%. Sky's discussion of "critical diversion ratios" is at paragraph 60 of Annex 4 to Sky's submission.

bundling economies, a vertically integrated company would have a stronger incentive not to sell to the third party retailer[55];

- o Where the cost of providing a switching consumer with access to content is low (see item (6) in the above table); and

- The wholesale margin on the content that the vertically integrated firm supplies its retail competitors is low (see items (1) and (4) in the above table). Similarly, the wholesale margin is more likely to be low, relative to the retail margin, if advertising revenue (item (2) in the above table) is low.

6.34 Whether the proportion of customers that are likely to switch is higher or lower than the critical diversion ratio is likely to depend on factors such as:

- the level of switching costs between retailers. Customers that incur high switching costs are unlikely to change retailer, even if content becomes unavailable from their preferred retailer;

- the availability of the content in question from other retailers, i.e. do subscribers switch to the vertically integrated firm or do they instead switch to another retailer to access that content?; and

- the importance of the content that is being withheld. Unless consumers highly value the content in question, they are unlikely to switch retailer.

6.35 The particular role of switching costs is noteworthy, given that switching costs are likely to be higher when consumers are switching between retailers on different platforms than they are when consumers are switching between retailers on the same platform. This suggests 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 any platform on which it is present.

6.36 This hypothesis does correlate in some respects with what we observe, in that:

- Sky does make its premium content available to other platforms, especially those such as cable where it is not itself present as a retailer. Sky does not appear to make its premium content available to other retailers on its own satellite platform. Nor is premium content currently made available on DTT, where Sky has announced its desire to launch its own retail operation;

- More generally, we have observed several examples of third party channels being licensed to different retailers on different platforms, but very few examples of third party channels being licensed to multiple retailers on the same platform. As we note in paragraph 5.92, a number of contracts for the supply of wholesale channels contain platform-specific exclusivity clauses.

[55] These sorts of effect may be further reinforced where the wholesale channel provider / retailer is also integrated with a platform business and where there are economies of scale in platform operation.

6.37 We recognise that a vertically integrated firm may also weigh up other, longer-term, factors when deciding whether to supply its retail competitors. These longer-term factors are discussed in paragraphs 6.68 to 6.73.

Do vertically integrated operators have the incentive to supply reduced quality and / or quantity of content to downstream competitors?

6.38 We note that cable customers who subscribe to Sky Sports via Virgin Media are unable to obtain certain services that are available to Sky customers on satellite. For example, their interactive services are restricted - where a satellite customer may on some occasions be able to use their red button to select between two football matches, this same functionality is not available to cable customers.

6.39 This factual observation raises the question of why, in principle, a vertically integrated wholesaler-retailer might only supply a degraded version of its channels to third party retailers.

6.40 There may be legitimate reasons for a vertically integrated firm to refuse to supply its enhanced content to third party retailers. First, it may protect the reputation of that content. This argument may be applicable where third party retailers lack the capacity to carry the enhanced content without materially diminishing its quality. Second, there may be practical or technological reasons why it is not possible for the wholesale channel provider to provide a version of its product to third parties which is identical to that which it provides its own downstream arm.

6.41 This question may however also overlap with the discussion in paragraphs 6.28 to 6.37 above. By only supplying a degraded version of its channels to third party retailers, a vertically integrated wholesaler-retailer is likely to forego wholesale revenues; were it to supply the full, enhanced version of those channels it could presumably charge a higher wholesale price. However, in certain circumstances, those foregone wholesale profits may be offset by a larger gain in retail profits. We discussed potential short term effects on retail profits above, namely the possibility that some consumers that highly value the enhanced content would switch to the vertically integrated firm over the short term. In addition, there may be other impacts.

6.42 For example, only supplying a degraded version of its channels to third party retailers may assist the vertically integrated firm's longer term market positioning in the eyes of consumers. In other words, it may support the vertically integrated firm's marketing/branding efforts by reinforcing in consumers' minds the perception that the vertically integrated firm is the market leader in pay TV and that the general quality of rival retailer's offerings is 'inferior'. This may contribute to strengthening the vertically integrated retailer's position in the retail market, thereby allowing it to increase its retail revenues. We recognise that the strength of this market positioning incentive is an empirical question – it is not necessarily the case that it provides a strong motivation for a vertically integrated firm to refuse to supply its enhanced content to third parties.

Short-run operation of the market – basic content

Does the use of buy-through restrict competition in the provision of basic retail services?

6.43 Buy-through – the practice of requiring consumers to purchase a basic package before they are allowed to buy a premium service – has the potential to raise specific competition concerns. There may well be reasons for a retailer to impose a buy-through requirement other than in order to exclude potential competitors. However, we consider it is possible that requiring buy-through may have the effect of foreclosing competition in the retail of basic services if it operated so as to reduce the number of consumers for whom potential new entrants can compete.

Rationale for buy-through

6.44 As explained in section 5, tying different types of content, in this case basic and premium, together in a single retail bundle can allow retailers to sell more content, at different price points, to a wider range of consumers. However, whilst this may explain why a retailer wishes to tie basic and premium content together in a bundle, it does raise the question of why a firm would *not* want to make available a stand-alone premium product in addition to the bundled product.

6.45 There appear to be at least two possible explanations for premium content not being made available on a stand-alone basis:

- First, a firm may reduce its short run profits by introducing a stand-alone product; and

- Second, the Parties argue in the Submission that “one of the reasons that the TPS regime is not effective in providing viable access to the DSat platform for a retailer of basic channels (other than Sky) is Sky's strategy of requiring customers to buy a basic package of channels before they can buy a premium channel. This strategy means that all Sky's premium channel subscribers will already have access to a large number of basic channels and are, therefore, very much less likely to be inclined to purchase further basic channels.”

6.46 On the first of these points, it appears to us that if a retailer currently only offering buy-through access to premium content also introduces a stand-alone premium product at a price below the bundled price of basic and premium, it will trade off two types of effects:

- A business growth effect – consumers that have a low willingness to pay for basic content and a willingness to pay for premium content that is below the current bundled price will be attracted to the stand-alone product. These new consumers will increase the firm’s profits (to the extent that the price of the stand-alone product exceeds its marginal cost); and

- A cannibalisation effect – consumers that have a low willingness to pay for basic content, but a very high willingness to pay for premium content will trade down from the bundled product to the stand-alone product. Assuming that the margin on the stand-alone premium product is lower than the margin on the premium-basic bundle then each consumer that trades down in this way will make the firm worse off than it was without the stand-alone product.

6.47 If the cannibalisation effect exceeds the business growth effect, then it will not be profitable for the firm to introduce a stand-alone product alongside its premium-basic bundle. Hence if there is a relatively large number of households who ‘strongly like’ premium content but do not particularly value basic content then retailers may be unwilling to offer premium content on a stand-alone basis and may instead operate a buy-through.

Possible effect of buy-through

6.48 As discussed above, there may be a number of reasons for operating a buy-through which have no relation to any exclusionary intent. Nonetheless, it might be that in certain circumstances, a buy-though would at the very least have an exclusionary effect.

6.49 Potential new entrants in the market for stand-alone basic retail services, for example through the open satellite platform, are faced with the prospect of competing for two broad types of consumers:

- Those who value basic content but do not highly value premium content. Such consumers currently take a stand-alone basic service; and

- Those who value both basic and premium content. Such consumers currently take a combined basic / premium bundle from Sky.

6.50 The new entrant may be able to challenge for the first of these customer types, namely stand-alone basic customers. However, the new entrant may face difficulties in attracting the second of these customer types. This is because the buy-through may mean that purchasing the new entrant's basic product would not itself enable a customer to obtain (attractive) premium content. Note that this logic crucially assumes that consumers could not buy-through from third party basic content to the premium content.

6.51 To take a specific hypothetical example: suppose a new entrant is seeking to sell a stand-alone package of basic children's channels. That package might be attractive in itself to children in a given household, but if the parents in the household want to watch football, already buy a package which gives them both football and children's programming, and are unable to buy the football programming separately, they may be less likely to buy an additional separate children's package.

6.52 In contrast, if the buy-through no longer operated and instead stand-alone premium content were available, then a sufficient number of these consumers might seek to self-assemble their own bundle in order to facilitate entry (by purchasing stand-alone premium content from one retailer plus stand-alone basic content from the new entrant).

6.53 We do not yet have a view on whether such self-assembly is in fact plausible and therefore welcome the views of consultation respondents. We note that, in principle, a self-assembled bundle might be more expensive than a combined basic-premium bundle.

- Part of the current price of the cheapest basic packages is likely to reflect the costs of access to the platform in question, for example costs of set-top boxes or customer handling costs;

- Stand-alone content and bundled content are likely to be targeted at different consumers. In this situation, the price of the bundle is likely to differ from the stand-alone price of its components - we refer here to our previous example of consumers' varying valuations of different types of content;

- The optimal retail price (from the point of view of a retailer) for stand-alone premium content may be relatively high, for example to mitigate the cannibalisation effect described above; and

- There may be supply-side economies of scope from bundling premium and basic content together. In other words, the costs to a retailer of offering both products jointly may be lower than sum of the costs of providing the two products separately.

<u>Summary on buy-through</u>

6.54 We have considered whether the practice of buy-through, whereby consumers are required to buy a basic package before they can buy a premium package, may restrict competition in the provision of basic retail services. We note that buy-through may be a perfectly rational strategy for a retail provider, but that it may also have an exclusionary effect.

6.55 Potential competitors in the retail market for basic content packages are faced with the prospect of competing for two broad types of consumers: those who value basic content, but do not highly value premium content, and those who also value premium content. The existence of buy-through means that the latter group of consumers have no choice but to purchase a combined basic / premium bundle, and they will do so from whichever retailer on their chosen platform has access to premium content. Such consumers may be unwilling to purchase a further basic package from a different provider on the same platform. The effect of buy-through may therefore be to restrict competition in basic content between retailers on the same platform.

6.56 In contrast, if the buy-through no longer operated, and premium content were available on a stand-alone basis, then some of those consumers who value both basic and premium content may purchase these from different retailers. We acknowledge that the standalone prices of basic and premium content may be such as to make this unattractive for consumers. However, at the moment, it is not open to the market to determine whether this would be the case.

Long-run operation of the market – access to premium content

6.57 We think it is important to consider the longer-term motivations that may shape the behaviour of vertically integrated firms. In particular, the possibility of new market entry or the exit of existing players is important, since whilst it might be possible to characterise the last decade or so as being a process of competition between two established pay TV providers, one on cable and one on satellite, we are now at a point in time where new market entry is becoming possible, based on new distribution technologies (IPTV, DTT, Internet, mobile TV). We therefore need to be particularly alert to the risks associated with dynamic foreclosure, i.e. the risk that firms already present in the market might either exploit or benefit from certain dynamic characteristics of the market to foreclose entry by new providers (or – analogously – to drive out firms that have recently entered).

6.58 An example of this type of concern might be the ‘vicious circle’ set out in Part 3 of the Submission. This argues that Sky’s unique position in the pay TV industry creates a vicious circle (virtuous for Sky) that enables Sky to engage in conduct which harms competitors and consumers. The Parties suggest that the key features of Sky’s position are:

- Its vertical integration;

- Its upstream bottleneck – namely its firm grasp of attractive content that it purchases on an exclusive basis; and

- Its downstream bottleneck. This includes both its gatekeeper status for the satellite platform (with respect to EPG listings and conditional access charges) and its retail customer base which is larger than those of all other pay TV operators combined.

6.59 Taken together, the Parties argue, these three features allow Sky to pay more for attractive content because it can recover the costs of that exclusive content over a larger number of customers than its rivals. This in turn enables it to attract more customers at the retail level, thus reinforcing its ability to purchase yet more attractive content. Of particular importance to the Parties' argument is the fact that the costs of content are largely fixed (with respect to retail customer numbers) while the revenues from selling content (and hence Sky's willingness to pay for that content) vary directly with the number of retail customers. This revenue impact is reinforced by the ability to earn advertising revenues over a larger number of customers.

6.60 Sky has argued in response that there is neither downstream nor upstream foreclosure, because Sky has strong incentives to distribute content and open access to Sky's platform on DSat is ensured by regulation. Sky refutes the existence of the 'vicious circle' in part C of its Response.

6.61 We consider two questions below:

- Are there significant barriers that prevent entry into the wholesale channel provision market? Is there a risk of foreclosure?

- Do vertically integrated operators have the incentive and ability to foreclose potential new retailers and / or platform operators by denying them content?

Are there significant barriers that prevent entry into the wholesale channel provision market? Is there a risk of foreclosure?

6.62 There are likely to be substantial challenges facing a firm wishing to enter the wholesale channel market and bid for premium content rights, particularly if it is in competition with a vertically integrated incumbent.

6.63 An incumbent retailer will typically have built up a portfolio of content rights over a number of years. We observed in section 5 that content rights will typically have been provided on the basis of a fixed duration of between three and five years for most sports rights, and that movie contracts do not tend to come up for renewal at the same time, so that they could be contestable only on a staggered basis over the course of the next few years.

6.64 The benefits of content aggregation combined with the staggered availability of rights suggest that there are likely to be important first-mover advantages for certain wholesale channel providers. By aggregating content into channels, wholesale channel providers can increase the collective value of the content above its stand-alone value. This means that 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. It will therefore be able to pay more for those rights. Staggered availability of rights also facilitates the content aggregation effect described above, by making it easier for an incumbent with a significant portfolio of rights to accumulate and retain other rights as they become available.

6.65 In contrast, a new entrant that wishes to assemble a portfolio of rights must gradually accumulate those rights, by repeatedly winning the bidding for different pieces of content. Indeed, that potential new entrant may need to incur initial losses (in order to outbid the incumbent which is able to extract more value from those rights), in the hope that it ultimately acquires sufficient content for the market to begin to "tip" in its favour. These difficulties may be exacerbated when rights agreements have a long duration, in which case this is likely to take a number of years. As a result, there may be significant barriers to entry for wholesale channels which wish to supply certain types of content.

6.66 It might be possible to influence the barriers to entry described above through regulatory intervention. The FAPL remedy is likely to have facilitated Setanta's acquisition of content rights previously acquired by Sky and which Sky might have otherwise acquired, given the aggregation benefits described above.

6.67 In addition to those barriers to entry which may be intrinsic to content markets at the wholesale level, a vertically integrated incumbent may have an incentive to create additional barriers to entry by exploiting its position in downstream markets. During the extended period in which a new wholesale channel provider is building up a portfolio of content rights, the vertically integrated incumbent may be able to restrict the new entrant's access to retail markets, and therefore make it more difficult for the new entrant to monetise its rights. In the case of Setanta and Sky, for example, Sky may have an incentive to restrict Setanta's access to the retail market by restricting access to its satellite platform. We acknowledge however that Sky's ability to do this will be limited, due to the regulatory obligation which Sky faces to make access available on fair, reasonable and non-discriminatory terms.

Do vertically integrated operators have the incentive to foreclose potential new retailers and / or platform operators by denying them content?

6.68 We considered in paragraph 6.27 onwards above the incentives that may be faced by a vertically integrated wholesale channel provider when deciding whether to supply its content to third parties. Such a provider appears to face a trade-off between the incentive to supply its content to all retailers and the incentive to favour its own retail operation.

6.69 We noted that the way in which these incentives play out in practice is likely to depend on consumer switching behaviour. A vertically integrated wholesale channel provider may be willing to supply its channels to retailers on other platforms, if consumers are relatively unlikely to respond by switching. However, a vertically integrated wholesale channel provider may be unlikely to supply its channels to competing retailers on its own platform, because of lower intra-platform switching costs.

6.70 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[56].

6.71 Returning to the example set out in paragraph 6.32 above, possible longer-term effects include:

- Suppose that platform Y is an emerging platform and that, in the future, large numbers of consumers on platform X will be able to switch to Y without incurring significant switching costs. This might be the case if, for example, platform Y was an IPTV-based service delivered over existing broadband connections. As a result of this future fall in switching costs, in the longer term X would face a similar incentive not to supply retailers on platform Y to the incentive that it currently faces towards other retailers on platform X. This is because, by supplying Y, significant numbers of consumers may switch away from X’s own retail business in the future.

- A related argument concerns future customers that do not currently purchase pay TV services:

  - Suppose that few current Y subscribers would switch from Y to X if X’s premium content is withdrawn. This is because current Y subscribers have already sunk any up-front costs of obtaining access to Y’s services (such as installation costs or the hassle of subscribing to a new supplier) whereas they may incur material additional access costs if they begin subscribing to X’s service. As a result, existing Y customers are less likely to switch away from Y.

  - However, suppose that there are also a significant number of consumers that do not currently purchase pay TV services but might do so in the future (e.g. as tastes and accepted norms about television consumption change). Some of these potential future consumers might, in the future, choose to subscribe to Y if it includes premium content. However, if Y does not include premium content, a significant proportion of them may instead subscribe to X. These entirely new customers, who do not currently subscribe to pay TV services, incur an access cost regardless of which platform they choose to subscribe to. They are thus likely to be more sensitive to differences between X and Y than pre-existing Y customers;

  - If few current Y subscribers would switch, platform X would thus incur a short-term loss from refusing to supply Y (in terms of foregone wholesale revenue). The magnitude of this loss will depend on the size of platform Y (or, more specifically, on the number of Y subscribers that currently view X’s premium content) and thus may be small (in absolute terms) when Y is a small platform. Platform X may wish to trade off this short-term loss against the longer-term benefits of attracting future subscribers (i.e. those who currently do not subscribe to pay TV from X or Y but would do so in the future);

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[56] Similar issues are discussed in pages 22-28 of H. Weeds “TV Wars: Exclusive Content and Platform Competition in Television Broadcasting”, 31 March 2007, mimeo. This academic paper noted that (under certain assumptions) a firm faces a trade off between the static revenue gain from supplying premium content to a rival distributor (namely the wholesale price and any advertising revenues) and the dynamic benefits from refusing to supply its content (namely building its market share).

- Suppose that the retail price of Y's basic content constrains the retail price of X's basic content. This constraint might be weakened if X refuses to supply premium content to Y. For example, by refusing to supply Y this reduces the number of Y subscribers. If there are significant economies of scale at the platform or retail level, then this will drive up Y's average costs. If this increases the retail price of Y's basic content then it this may allow X to increase its retail margin on that content.

6.72 The overall effect of such incentives would be that a vertically integrated wholesale channel provider is likely to face a trade-off when deciding whether to supply its content to a new entrant, on any platform. On the one hand, that new entrant has the potential to grow the total market (which boosts the vertically integrated firm's wholesale revenues); on the other hand, the new entrant might create a threat to the vertically integrated firm's existing retail activities. It might therefore be in the long-term interest of the vertically integrated firm to act in a manner that forecloses market entry by new retailers.

6.73 Furthermore, the incentive to foreclose market entry by new retailers might be strengthened where this also has the effect of foreclosing market entry by new platforms. We note in this context the importance of vertical integration between platform operation and retailing, not just for incumbents, but also new entrants. It is likely that new platform operators wishing to enter the market will also retail services on their platform, and that the success of the new platform will depend to a significant on the success of the related retail business. BT Vision, Top Up TV and Tiscali are all examples of platform operators which are also the primary (though not necessarily the only) retailer on their platform. Foreclosure of market entry at the retail level may also in these cases foreclose market entry at platform level.

Summary of possible concerns

6.74 We may have competition concerns where aggregation of content by a particular provider leads to the creation of market power. However, aggregation of content into service bundles is also likely to result in efficiency gains, which may benefit consumers. There is a risk that any intervention to prevent bundling *per se* could undermine these efficiency benefits, and therefore be counter-productive.

6.75 However, if any market power which results from content aggregation can then be leveraged into other markets, then this is likely to produce additional competition concerns without any compensating efficiency benefits. Such leverage is likely to be of particular concern from a competition perspective.

6.76 Bundling efficiencies mean that platforms may be prone to "tipping" towards one retailer, particularly where one retailer on a platform has exclusive control over a core of premium content. In such circumstances consumers are likely to be particularly dependent on the existence of effective competition between vertically integrated platform operators / retailers. This is likely in turn to depend on whether retailers on different platforms are able to gain access to premium content.

6.77 We have four particular concerns with the prospects for this kind of inter-platform competition:

- There may be significant barriers to entry into the market for premium wholesale channels. These are primarily due to the way in which content rights become contestable only on a staggered basis. These barriers to entry may be exacerbated by the presence of a vertically integrated incumbent, which has an incentive to control access to downstream markets, albeit its ability to do so may be restricted by regulation.

- Although a vertically integrated incumbent may supply content to established retail competitors, in order to generate wholesale revenues, it may have the ability and incentive to reduce the quality of what it supplies, in order to strengthen its own retail offering relative to its competitors. We acknowledge however that such reductions of quality may also arise naturally, due to technical inter-operability issues.

- A vertically integrated incumbent may have the incentive and ability to foreclose potential new retailers by denying them content.

- The prevalence of vertical integration between retail and platform operations may cause this problem to extend to foreclosing the possible development of new platforms.

6.78 It is unlikely that owners of premium content will make this content available to multiple retailers on the same platform. Despite this, it is still possible that competition might emerge between different providers of basic content on the same platform. However, the prospects for this type of competition may be restricted by the existence of buy-through, which requires consumers wishing to purchase premium content to purchase basic content from the same provider.

Consultation questions

17. Do you agree with our assessment of the effects of content aggregation on retail competition?

18. Do you agree with our summary of the possible issues relating to the short-run operation of the market?

19. Do you share our possible concerns over the long-run operation of the market?

20. What do you see as the impact of these considerations on consumers?

Section 7

Next steps

7.1 This document sets out our preliminary understanding of the pay TV industry and its constituent markets. We have considered how a number of observed characteristics of the pay TV industry interact to affect likely market outcomes. We have taken a view of what this could mean for consumers. The focus of the investigation has been on the provision of retail pay TV services, and those upstream markets which are directly relevant.

7.2 Ofcom has not yet reached a view on the existence of competition problems.

7.3 We are at this stage seeking stakeholders' views on our preliminary understanding of the market and the possible effect of this on consumers. Full details of how to respond to this consultation are set out in Annex 1.

7.4 The consultation responses received will enable us to examine whether there are competition issues requiring further action. Such further action may involve steps being taken under the legal powers discussed at Annex 7.

7.5 Some allegations concerning anti-competitive conduct have already been aired in the submission. During the next stage of this investigation our analysis will include consideration of any alleged anti-competitive behaviour, and how this might interact with some of the broader issues discussed in this consultation.

7.6 The full list of questions on which we are consulting is included at Annex 4. In summary, however, we would welcome respondents' views on the following areas:

- Our criteria for assessing the market
- Our description of the history and structure of the industry
- Our review of consumers' experience of the industry
- Our analysis of market definition and market power
- Our analysis of the characteristics of the market
- Our assessment of how the market operates in the short run
- Our assessment of how the market may operate in the long run, and the extent to which this may raise concerns

Section 8

Summary of accompanying annexes

8.1 Annexes 1 to 6 are included with this document. Annexes 7 to 16 are available as separate documents.

Annex 1. Responding to this consultation

Annex 2. Ofcom's consultation principles

Annex 3. Consultation response cover sheet

Annex 4. Questions for consultation

Annex 5. Impact assessment

Annex 6. Glossary of terms used in this consultation

Annex 7. Legal framework and regulatory environment

8.2 This annex summarises the various legal instruments which may be relevant to this investigation, and the regulation which already exists relating to the pay TV sector.

Annex 8. UK market landscape

8.3 This annex provides key statistics and facts on the development of the UK pay TV market, and describes the major service offerings from the main retailers.

Annex 9. International market profiles

8.4 This section contains an Ofcom-commissioned independent report produced by Spectrum Value Partners profiling the pay TV industry landscapes for a number of countries, specifically:

- France
- Germany
- Italy
- Spain
- Sweden
- US

Annex 10. Sports rights

8.5 This annex contains an Ofcom-commissioned independent report produced by Spectrum Value Partners sets out an overview of the UK industry for television rights to sports content, including:

- Key sports rights bought and sold for distribution in the UK
- Relationships between broadcasters and rights holders in the UK
- The way rights have been sold in the UK

Annex 11. Film rights

8.6 This annex contains an Ofcom-commissioned independent report produced by Screen Digest which provides an overview of the UK industry for television rights for movie content, including:

- Types of rights bought and sold for distribution in the UK
- Relationships between broadcasters and rights holders in the UK
- The way rights have been sold in the UK

Annex 12. Profitability analysis

8.7 This annex includes more detail on the analysis of profitability and shareholder returns included in chapter 4.

Annex 13. Market definition and assessment of market power

8.8 This annex provides Ofcom's method, analytical framework, data and analysis for establishing market definitions and an assessment of market power.

Annex 14. Consumer research

8.9 This annex summarises relevant consumer research from the various pieces of research that Ofcom has carried out over the last three years.

Annex 15. Focus group research report

8.10 Summary of focus group research carried out for this investigation.

Annex 16. Cases involving pay TV in other jurisdictions

8.11 This annex sets out the types of regulatory interventions considered in other overseas jurisdictions.

Annex 1

Responding to this consultation

How to respond

A1.1 Ofcom invites written views and comments on the issues raised in this document, to be made **by 5pm on 26 February 2008**.

A1.2 This is a 10 week consultation period, including Christmas, reflecting the fact that we are not making any policy recommendations at this stage, and that some of the major issues have been in the public domain since we published the Parties' Submission and Sky's response on 6 December 2007.

A1.3 Ofcom strongly prefers to receive responses using the online web form at http://www.ofcom.org.uk/consult/condocs/market_invest_paytv/howtorespond/form, as this helps us to process the responses quickly and efficiently. We would also be grateful if you could assist us by completing a response cover sheet (see Annex 3), to indicate whether or not there are confidentiality issues. This response coversheet is incorporated into the online web form questionnaire.

A1.4 For larger consultation responses - particularly those with supporting charts, tables or other data - please email william.hayter@ofcom.org.uk attaching your response in Microsoft Word format, together with a consultation response coversheet.

A1.5 Responses may alternatively be posted or faxed to the address below, marked with the title of the consultation.

Will Hayter
Competition Group
Riverside House
2A Southwark Bridge Road
London SE1 9HA

Fax: 020 7783 4109

A1.6 Note that we do not need a hard copy in addition to an electronic version. Ofcom will acknowledge receipt of responses if they are submitted using the online web form but not otherwise.

A1.7 It would be helpful if your response could include direct answers to the questions asked in this document, which are listed together at Annex 4. It would also help if you can explain why you hold your views and how Ofcom's proposals would impact on you.

Further information

A1.8 If you want to discuss the issues and questions raised in this consultation, or need advice on the appropriate form of response, please contact Will Hayter on 020 7783 4197.

Confidentiality

A1.9 We believe it is important for everyone interested in an issue to see the views expressed by consultation respondents. We will therefore usually publish all responses on our website, www.ofcom.org.uk, ideally on receipt. If you think your response should be kept confidential, can you please specify what part or whether all of your response should be kept confidential, and specify why. Please also place such parts in a separate annex.

A1.10 If someone asks us to keep part or all of a response confidential, we will treat this request seriously and will try to respect this. But sometimes we will need to publish all responses, including those that are marked as confidential, in order to meet legal obligations.

A1.11 Please also note that copyright and all other intellectual property in responses will be assumed to be licensed to Ofcom to use. Ofcom's approach on intellectual property rights is explained further on its website at http://www.ofcom.org.uk/about/accoun/disclaimer/

Ofcom's consultation processes

A1.12 Ofcom seeks to ensure that responding to a consultation is easy as possible. For more information please see our consultation principles in Annex 2.

A1.13 If you have any comments or suggestions on how Ofcom conducts its consultations, please call our consultation helpdesk on 020 7981 3003 or e-mail us at consult@ofcom.org.uk. We would particularly welcome thoughts on how Ofcom could more effectively seek the views of those groups or individuals, such as small businesses or particular types of residential consumers, who are less likely to give their opinions through a formal consultation.

A1.14 If you would like to discuss these issues or Ofcom's consultation processes more generally you can alternatively contact Vicki Nash, Director Scotland, who is Ofcom's consultation champion:

Vicki Nash
Ofcom
Sutherland House
149 St. Vincent Street
Glasgow G2 5NW

Tel: 0141 229 7401
Fax: 0141 229 7433

Email vicki.nash@ofcom.org.uk

Annex 2

Ofcom's consultation principles

A2.1 Ofcom has published the following seven principles that it will follow for each public written consultation:

Before the consultation

A2.2 Where possible, we will hold informal talks with people and organisations before announcing a big consultation to find out whether we are thinking in the right direction. If we do not have enough time to do this, we will hold an open meeting to explain our proposals shortly after announcing the consultation.

During the consultation

A2.3 We will be clear about who we are consulting, why, on what questions and for how long.

A2.4 We will make the consultation document as short and simple as possible with a summary of no more than two pages. We will try to make it as easy as possible to give us a written response. If the consultation is complicated, we may provide a shortened Plain English Guide for smaller organisations or individuals who would otherwise not be able to spare the time to share their views.

A2.5 We will consult for up to 10 weeks depending on the potential impact of our proposals.

A2.6 A person within Ofcom will be in charge of making sure we follow our own guidelines and reach out to the largest number of people and organisations interested in the outcome of our decisions. Ofcom's 'Consultation Champion' will also be the main person to contact with views on the way we run our consultations.

A2.7 If we are not able to follow one of these principles, we will explain why.

After the consultation

A2.8 We think it is important for everyone interested in an issue to see the views of others during a consultation. We would usually publish all the responses we have received on our website. In our statement, we will give reasons for our decisions and will give an account of how the views of those concerned helped shape those decisions.

Annex 3

Consultation response cover sheet

A3.1 In the interests of transparency and good regulatory practice, we will publish all consultation responses in full on our website, www.ofcom.org.uk.

A3.2 We have produced a coversheet for responses (see below) and would be very grateful if you could send one with your response (this is incorporated into the online web form if you respond in this way). This will speed up our processing of responses, and help to maintain confidentiality where appropriate.

A3.3 The quality of consultation can be enhanced by publishing responses before the consultation period closes. In particular, this can help those individuals and organisations with limited resources or familiarity with the issues to respond in a more informed way. Therefore Ofcom would encourage respondents to complete their coversheet in a way that allows Ofcom to publish their responses upon receipt, rather than waiting until the consultation period has ended.

A3.4 We strongly prefer to receive responses via the online web form which incorporates the coversheet. If you are responding via email, post or fax you can download an electronic copy of this coversheet in Word or RTF format from the 'Consultations' section of our website at www.ofcom.org.uk/consult/.

A3.5 Please put any parts of your response you consider should be kept confidential in a separate annex to your response and include your reasons why this part of your response should not be published. This can include information such as your personal background and experience. If you want your name, address, other contact details, or job title to remain confidential, please provide them in your cover sheet only, so that we don't have to edit your response.

Cover sheet for response to an Ofcom consultation

BASIC DETAILS

Consultation title:

To (Ofcom contact):

Name of respondent:

Representing (self or organisation/s):

Address (if not received by email):

CONFIDENTIALITY

Please tick below what part of your response you consider is confidential, giving your reasons why

Nothing Name/contact details/job title

Whole response Organisation

Part of the response If there is no separate annex, which parts?

If you want part of your response, your name or your organisation not to be published, can Ofcom still publish a reference to the contents of your response (including, for any confidential parts, a general summary that does not disclose the specific information or enable you to be identified)?

DECLARATION

I confirm that the correspondence supplied with this cover sheet is a formal consultation response that Ofcom can publish. However, in supplying this response, I understand that Ofcom may need to publish all responses, including those which are marked as confidential, in order to meet legal obligations. If I have sent my response by email, Ofcom can disregard any standard e-mail text about not disclosing email contents and attachments.

Ofcom seeks to publish responses on receipt. If your response is non-confidential (in whole or in part), and you would prefer us to publish your response only once the consultation has ended, please tick here.

Name Signed (if hard copy)

Annex 4

Consultation questions

1. Do you agree with the criteria against which we propose to assess the functioning of the pay TV sector?

2. Does our overview of the pay TV market fairly reflect the key developments within this market?

3. Do you agree with our analytic framework for the pay TV value chain? If not, why not?

4. Are there any additional comments or evidence which you wish to provide?

5. Do you agree with the views we have expressed as to the level of platform and content choice available?

6. Do you agree with our analysis of innovation levels in UK pay TV? Do you agree with our assessment of what has driven innovation in the past, and what will drive it in the future?

7. Do you agree with our analysis of pricing structures in UK pay TV? Do current pricing structures act in the aggregate interests if consumers?

8. Do you agree with our assessment that there is currently insufficient evidence to support a conclusion that prices in the UK are excessive?

9. Do you agree with our initial assessment that there is not convincing evidence to support the claim that the industry is earning excessive profits? Is there evidence to support the suggestion that Sky is pursuing objectives other than short term profitability?

10. Are there any other comments or evidence which you wish to provide?

11. What is your view on our approach to defining markets?

12. Do you agree with our definitions of premium content markets?

13. Do you agree with our preliminary conclusions on basic / free-to-air markets?

14. Do you agree with our assessment of market power?

15. Have we identified the correct set of intrinsic market characteristics? Are there any that you would add?

16. Have we correctly captured the role of vertical integration?

17. Do you agree with our assessment of the effects of content aggregation on retail competition?

18. Do you agree with our summary of the possible issues relating to the short-run operation of the market?

19. Do you share our possible concerns over the long-run operation of the market?

20. What do you see as the impact of these considerations on consumers?

Annex 5

Impact Assessment

A5.1 This consultation sets out Ofcom's preliminary understanding of the pay TV industry.

A5.2 At this stage, we are not setting out any policy options nor making any recommendation for regulatory action.

A5.3 We have therefore not at this point carried out an impact assessment exercise, but will do so at such time as we are considering specific policy options.

Annex 6

Glossary

AC: Access Control. A service that allows broadcasters to develop software applications such as interactive TV applications

ADSL: Asymmetric Digital Subscriber Line. A digital technology that allows the use of a standard telephone line to provide high speed data communications. Allows higher speeds in one direction (towards the customer) than the other.

ARPU: Average revenue per user.

ATT: Analogue Terrestrial Television. The television broadcast standard that all television industries launched with. Most countries in this study are planning to phase out ATT in the next ten years.

BA90 and BA96: Broadcasting Act 1990 and Broadcasting Act 1996

BARB: Broadcasters Audience Research Board. The pan-industry body which measures television viewing.

Broadband. A service or connection generally defined as being ‘always on’ and providing a bandwidth greater than narrowband.

BSC: Broadcasting Standards Commission. Functions transferred to Ofcom on 29th December 2003.

CA: Conditional Access. A technology enabling a broadcaster to restrict access to content that it has made available on a digital platform only to those customers that have been authorised to access it

CA98: Competition Act 1998

CC: Competition Commission

Cabsat: Cable and/or satellite.

CAGR: Compound Annual Growth Rate. The average annual growth rate over a specified period of time. It is used to indicate the investment yield at the end of a specified period of time. The mathematical formula used to calculate CAGR = (present value/base value) (1/#of years) – 1

Churn. The loss of customers subscribing to a particular pay TV package or retailer

CA03: Communications Act 2003.

Digital switchover. The process of switching over the current analogue television broadcasting system to digital, as well as ensuring that people have adapted or upgraded their televisions and recording equipment to receive digital TV.

DSat: Digital satellite. A term used in the UK to refer to the digital satellite platform.

DSL: Digital Subscriber Line. A family of technologies generally referred to as DSL, or xDSL, capable of transforming ordinary phone lines (also known as 'twisted copper pairs') into high-speed digital lines, capable of supporting advanced services such as fast Internet access and video-on-demand. ADSL, HDSL (High data rate Digital Subscriber Line) and VDSL (Very high data rate Digital Subscriber Line) are all variants of xDSL).

DTH: Direct to home. Another term for satellite distribution technology.

DTR: See DVR.

DTT: Digital Terrestrial Television. Currently most commonly delivered through the Freeview service.

DVB: Digital Video Broadcasting. A set of internationally accepted open standards for digital broadcasting, including standards for distribution by satellite, cable, radio and handheld devices (the latter known as DVB-H).

DVD: Digital Versatile Disc. A high capacity CD-size disc for carrying audio-visual content. Initially available read-only, but recordable formats are now available.

DVR: Digital Video Recorder (also known as Personal Video Recorder and Digital Television Recorder). A digital TV set-top box including a hard disc drive which allows the user to record, pause and rewind live TV.

EA02: Enterprise Act 2002

EC: European Commission

EPG: Electronic Programme Guide. A programme schedule, typically broadcast alongside digital television or radio services, to provide information on the content and scheduling of current and future programmes.

FAPL: Football Association Premier League.

FTA: Free-to-air. Broadcast content that people can watch or listen to without having to pay a subscription.

FTV: Free-to-view. Broadcast content that people can watch or listen to without having to pay a subscription, but require an additional viewing card to access.

Geographic Masking. Used by purchasers of CA services are able to restrict access to content to defined geographic territories by implementing technologies and procedures which seek to restrict and/or record the geographic locations in which each of its digital receivers is installed and used.

HDTV: High Definition Television. A technology that provides viewers with better quality, high-resolution pictures.

HMT: Hypothetical Monopolist Test. An economic test used to assess whether demand and supply-side substitutes provide a sufficiently strong competitive constraint to be included in a relevant market.

Internet. A global network of networks, using a common set of standards (e.g. the Internet Protocol), accessed by users with a computer via a service provider.

IP: Internet Protocol. The packet data protocol used for routing and carriage of messages across the Internet and similar networks.

IPTV: Internet Protocol Television. The term used for television and/or video signals that are delivered to subscribers or viewers using Internet Protocol (IP), the technology that is also used to access the Internet. Typically used in the context of streamed linear and on demand content, but also sometimes for downloaded video clips.

ITC: Independent Television Commission. One of the regulators replaced by Ofcom in 2003

LLU: Local Loop Unbundling. LLU is the process where the incumbent operators (in the UK it is BT and Kingston Communications) make their local network (the lines that run from customers premises to the telephone exchange) available to other communications providers. The process requires the competitor to deploy its own equipment in the incumbent's local exchange and to establish a backhaul connection between this equipment and its core network.

MPEG: Moving Picture Experts Group. A set of international standards for compression and transmission of digital audio-visual content. Most digital television services in the UK use MPEG2, but MPEG4 offers greater efficiency and is likely to be used for new services including TV over DSL and High Definition TV.

Multi-channel. In the UK, this refers to the provision or receipt of television services other than the main five channels (BBC ONE & TWO, ITV1, Channel 4/S4C, Five) plus local analogue services. 'Multi-channel homes' comprise all those with digital terrestrial TV, satellite TV, digital cable or analogue cable, or TV over broadband. Also used as a noun to refer to a channel only available on digital platforms (or analogue cable).

Multiplex. A device that sends multiple signals or streams of information on a carrier at the same time in the form of a single, complex signal. The separate signals are then recovered at the receiving end.

OFT: Office of Fair Trading.

Oftel. Office of Telecommunications, whose functions transferred to Ofcom on 29th December 2003.

PPV: Pay-per-view. A service offering single viewings of a specific film, programme or event, provided to consumers for a one-off fee.

PSB Public Service Broadcasting, or Public Service Broadcaster. The Communications Act in the UK defines the PSBs to include the BBC, ITV1, Channel 4, Five and S4C.

PVR See DVR.

Regionalisation. A service used by a broadcaster who may want to associate different broadcast channels with the same EPG channel number in different geographic regions

Service bundling. A marketing term describing the packaging together of different communications services by organisations that traditionally only offered one or two of those services.

Viewing share. Proportion of total TV viewing to a particular channel over a specified time, expressed as a percentage of total hours of viewing.

SSNIP: Small, but significant, non-transitory increase in price. Used in the hypothetical monopolist test.

Streaming content. Audio or video files sent in compressed form over the internet and consumed by the user as they arrive. Streaming is different to downloading, where content is saved on the user's hard disk before the user accesses it.

Time-shifting. The broadcasting of a television service on more than one channel with a specified delay (typically an hour), to provide more than one opportunity for viewers to watch the service. Alternatively, the recording of programmes by viewers (using PVRs, recordable DVDs or VCRs) to watch at another time.

TPS: Technical Platform Services. A group of services comprising Conditional Access, Geographic Masking, Regionalisation, Electronic Programming Guides and Access Control.

Transmitter. A device which amplifies an electrical signal at a frequency to be converted, by means of an aerial, into an electromagnetic wave (or radio wave). The term is commonly used to include other, attached devices, which impose a more simple signal onto the frequency, which is then sent as a radio wave. The term is sometimes also used to include the cable and aerial system referred to above, and indeed the whole electrical, electronic and physical system at the site of the transmitter.

UEFA: Union of European Football Associations. The governing body of football in Europe.

VCR: Video Cassette Recorder.

VoD: Video on Demand. A service or technology that enables TV viewers to watch programmes or films whenever they choose to, not restricted by a linear schedule. Also Near Video on Demand (NVoD), a service based on a linear schedule that is regularly repeated on multiple channels, usually at 15-minute intervals, so that viewers are never more than 15 minutes away from the start of the next transmission.

WCP: Wholesale channel provider.