

# **Paying for Public Service Content – a role for spectrum pricing**

**A report by Human Capital for the BBC**

**September 2009**

**Authors: Robin Foster, Kip Meek**

## 1. Executive summary

- The Government, as part of its Digital Britain Report, has asked for ideas and proposals which will provide sufficient contestable funding to support public service content outside the BBC, particularly for local, regional and Nations news.
- This paper, commissioned by the BBC, sets out how we think Ofcom's existing plans for spectrum pricing for broadcasting could be adapted to deliver such funding.
- Ofcom proposes to initiate administered incentive pricing (AIP) for broadcasting use of spectrum from 2014, and we have taken the introduction of AIP as the starting point for this paper. From that year, DTT multiplex licensees, including the BBC, will be asked to pay an annual fee for their use of the spectrum. Ofcom believes spectrum pricing will provide valuable incentives for multiplex licensees and their customers (broadcasters) to use spectrum more efficiently. However, as Ofcom has recognised, it is also likely to involve a transfer of funds from the broadcasting sector to the Exchequer, hence affecting investment in public service content.
- Our proposal is that, rather than being diverted from the broadcasting sector, this money could be channelled into a new Public Service Content Fund, which would support the provision of news and other public service content by providers other than the BBC. In so doing, it would address the possible negative consequences of spectrum pricing, and provide a solution to the PSB funding gap identified by Digital Britain. Funding could be allocated via a contestable process, which would be open to existing commercial broadcasters and to new players.
- This approach could be described as a modernised version of the old model in which spectrum value was implicitly traded for PSB obligations, but it is in every way an improvement over that model. Broadcasters would be asked to pay an economic rate for the spectrum they use, and the funds would be re-distributed in a much more open, flexible and transparent way to those (outside the BBC) with the best ideas for public service content. It would satisfy key Ofcom assessment criteria for new funding models, including transparency, flexibility and accountability, while at the same time capturing the efficiency benefits associated with spectrum pricing.
- Recycling AIP proceeds back into public service content in this way would ensure that there will be no overall reduction in programming investment. As importantly, there will be a transfer of funding from the BBC to the commercial sector, and from fully commercial broadcasters into public service content – a net gain for public service content outside of the BBC.
- Detailed work on the level of spectrum prices to be set is still to be carried out, but earlier estimates made by Ofcom suggest that charges for the use of DTT spectrum might generate £78m to £132m of payments a year, to be paid by the DTT multiplex licensees. Our own estimates suggest that spectrum pricing could, on relatively prudent assumptions, raise an amount at the top end of this range: £133m a year in total.

- The precise amounts paid by each multiplex licensee and by their broadcaster customers depend on a range of assumptions about the level of AIPs and the extent to which multiplex licensees pass on the charges. However, the BBC is likely to be the largest single contributor to the total.
- Since the BBC would be paying AIP but not receiving money from the Fund, it would be a net contributor. Conversely other broadcasters would have a chance to bid for the funding available, so some could gain more than they lose from the new system. Transitional safeguards could be introduced to protect Channel 4's public service remit from any undue impact.
- This funding could be used on its own, or in conjunction with other sources of value, such as partnering, to sustain public service content outside the BBC without resort to top-slicing the licence fee.
- Money from the new Public Service Content Fund could be allocated by an independent panel that would choose between competing tenders for public service content contracts. It would be important in our view for any such system to ensure that radical new approaches are considered and that value for money is a primary selection criterion. This will help avoid old cost structures being imported into any new provision. Evaluation of performance against those contracts would need to be undertaken by a body with relevant expertise.
- Our analysis suggests that the initial levels of funding associated with AIP, especially if used alongside other sources of value, would be sufficient to fund a satisfactory level of public service content, especially local news. Although AIP levels beyond a 5-10 year horizon are difficult to predict with any certainty, market trends suggests that demand for the DTT spectrum for HDTV, mobile or wireless uses will continue to strengthen. If, as suggested, a prudent approach is taken to setting initial AIP levels, the income produced should be sustainable for some time.
- While linking AIP charges to the Public Service Content Fund arguably represents a hypothecation, this is a long established practice – the value of broadcast spectrum has been (indirectly) tied to the provision of public service content for decades. In any event, as Ofcom argues, AIP is intended to be a charge related to the right to use a valuable asset, not a revenue generating tax.
- In conclusion, the use of AIP to fund public service content would deliver the Digital Britain aims of a strong and independent BBC while providing a sufficiency of contestable funding to support public service content outside the BBC in particular in local, regional and Nations news. In every way it would be an improvement compared with the old system whereby access to spectrum was traded implicitly for public service obligations from ITV, Five and Channel 4. It would be more flexible, allowing funding allocations to be varied more readily to meet changing needs. It would be less blunt, allowing targeted funding for specified programming, rather than indiscriminately supporting entire channels. It would allow continuation of a direct link between the licence fee and the BBC, while ensuring that a reasonable level of funding flows from the BBC, via AIP, to support public service content across the rest of the sector.

## 2. Context

### Introduction

Plurality of supply of certain types of public service content is seen to be an important continuing policy objective for the UK, but the old system for securing its provision is breaking down. A key challenge ahead, therefore, is to find a new model which can be continued into the future, and which offers robust and sustainable funding and delivery mechanisms. In this section, we summarise the conclusions reached by Ofcom and by Digital Britain, and explain the purpose of this paper as a contribution to the public consultation on proposals for a “contained contestable element” of the licence fee.

### The Ofcom second PSB Review

In January 2009, Ofcom published the conclusions of its second PSB Review, which highlighted the importance, as it saw it, of continued plurality of provision of public service content, and set out the funding requirements associated with that provision. Most commentators have accepted the general case made by Ofcom, especially in areas such as news and current affairs, but there is disagreement about the precise scale and scope of plurality needed, and the consequent amount of funding required,.

Ofcom bases its starting point on the assumption that a substantial public service funding gap will emerge in the medium term. In its final PSB Review Statement, for example, it suggests that £145m to £235m of public funding would be needed in 2012, in addition to the residual value of the current system, to “maintain the delivery of public service programming from a range of providers (at current levels)”. Of course, the narrower is the scope of plurality to be provided, the smaller will be the amount of extra public funding needed, so funding questions cannot be separated entirely from decisions about what types of plurality it is most desirable to preserve. The funding requirement could be much smaller, for example if the focus is on a more limited range of the most highly valued PSB objectives.

Addressing the potential funding problem, Ofcom evaluated a range of different funding sources, which it divided into four categories, as set out in its Phase 2 PSB Report:

- Regulatory assets – such as access to DTT spectrum, EPG prominence, as in the current model
- Licence fee – either the so-called “switchover surplus” or the value of BBC partnerships
- Industry Levies – levies on consumer hardware, retransmission levies
- Direct Government funding – grants from general taxation, or lottery funding.

A number of criteria were established by Ofcom in its Phase 1 and 2 documents to assess these different options – including scale, sustainability, transparency, flexibility, fairness, public support, accountability, editorial independence and market impact. One option raised by Ofcom but not pursued in detail in its final statement was in effect a combination of categories 1 and 4. This would involve the use of spectrum pricing to realise the value of access to scarce DTT spectrum in a more transparent way, and then to reallocate the proceeds to public service content providers through some sort of contestable process. Broadcasters (or more precisely DTT multiplex operators) would be charged explicitly for the spectrum they occupy and the proceeds would be used to fund identified public service content on existing or new channels. In its Phase 1 document, this was termed by Ofcom “Hypothecated proceeds from spectrum awards/administered incentive pricing” (Figure 47, page 94). Ofcom suggested that the advantages of this approach might be that it would provide an explicit and transparent source of funding, would be accountable, reasonably flexible and could provide benefits for all UK consumers from use of the spectrum. They identified risks however, which included lack of certainty about the amount of funding available, no direct link between the price of spectrum and the funding needed, and a risk to broadcaster editorial independence to the extent that the funds were distributed by government. We will return to these points later.

Overall, however, Ofcom concluded that “in the analysis of potential sources of funding against a set of criteria, no single source of funding was likely to meet each of the criteria or the full value of the funding gap (it had) identified” and that “in the deliberative research with members of the public no one funding option emerged as a complete solution” (para 5.8, page 45). Decisions on funding were therefore passed on to Digital Britain.

### **The Digital Britain Report**

In June 2009, the Digital Britain Report was published, setting out the Government’s proposals for supporting economic and social development of the media and communications sectors in the UK. The Digital Britain Report accepted many of Ofcom’s arguments about plurality of public service content, but noted that it is critical to distinguish between where plurality is desirable and where it is essential – and, given funding constraints, to focus attention on the latter. The Report suggested that priority should be given to:

- News in the Nations, regionally and locally
- Material for older children
- “Hard” factual and documentary output.

Note, this is already a much reduced list compared with Ofcom’s, and hence should require a proportionate decrease in the amount of funding needed.

The Digital Britain Report argued that the market alone will not secure the provision of the above outside of the BBC, and that it is important for society to have a range of sources of accurate and

trustworthy news at all levels. Plurality of provision might also be important for children's and documentary material, it suggested.

Digital Britain does not contain a detailed analysis of the funding mechanisms which might be used to support such plurality of provision, but does rule out some of the approaches reviewed by Ofcom. Regulatory assets, for example, it agrees are in decline and are unlikely to be sufficient to fund the desired levels of content. Consumer hardware levies are rejected on the grounds that it is "unconvinced that they will generate the necessary future revenues to fund content creation in the UK without unacceptably adverse consequences" while Ofcom is asked to carry out further cost/benefit analysis of retransmission levies. Direct funding from general taxation is ruled out as "in the current public expenditure climate, further calls on the Exchequer could not be contemplated". Digital Britain does not, however, take a view on some of the other options put forward by Ofcom, most notably the use of spectrum pricing.

Given this, Digital Britain concludes that the funding requirements for plurality in public service content will have to be met either directly or indirectly from the licence fee. A portion of the funds likely to be under-spent from the digital switchover help scheme could be released to fund pilots of local news provision before 2012. Thereafter, it is proposed to create a "Contained Contestable Element of the Licence Fee" (CCE) which would be used by or channelled through other organisations, primarily for news. (Section 5, para 36, page 143). An element of the licence fee broadly equivalent to the 3.5% currently used for the Digital Help Scheme could be maintained beyond 2013, with this cap written into the BBC Agreement. This would amount to around £125m a year of funding available to be allocated to other public service content via some sort of contestable process. It is not clear, however, whether this amount is chosen because it is the amount needed to fund the objectives identified, or because it is the amount available from the "switchover surplus". Arguably a focus primarily on news, given scope for new lower cost and cross-platform methods of provision, might require less than this amount.

Digital Britain recognises, however, that use of the licence fee in this way would represent a major shift in established practice and policy. There are risks involved, not least to ongoing public support for the licence fee and in turn public support for PSB in general. Reflecting this, the proposal has been put out to public consultation. Digital Britain notes that the "Government will be open to other ideas and proposals in the consultation period which meet the objectives of maintaining a strong, independent BBC, while providing a sufficiency of sustainable contestable funding to support public service content, particularly in local, regional and Nations news". (Section 5, para 40, page 144).

### **This paper**

This paper is intended as a contribution to that consultation. In the subsequent sections, we revisit one of the options reviewed earlier by Ofcom – namely the use of spectrum pricing to raise funds which can then be reinvested in public service content. We argue that this approach could achieve many of the objectives set by Digital Britain, including a transfer of funds from the BBC to the commercial sector, without changing the nature or use of the licence fee. On its own or in

combination with other approaches, such as the BBC's partnership proposals for sharing regional news resources , this could be a sensible way of securing the future of public service content outside the BBC for some years to come.

### 3. Spectrum Pricing and Public Service Content

#### Introduction

In this section we briefly trace the history of spectrum pricing and plans for applying pricing to broadcasting use of the spectrum. We assess both the benefits and risks, and then examine how a model for funding public service content based on the proceeds of spectrum pricing could both address those risks and provide a solution to the public service funding challenges identified by Ofcom and Digital Britain. We set out how our alternative proposal might work in general terms and how it would score against the Ofcom criteria for assessing funding options.

#### Spectrum pricing

Around the world, allocation of radio spectrum – a public asset - has traditionally been centrally managed by the public sector. However over the past 20 years or so, there has been a concerted move to introduce a more decentralised market-based approach to spectrum management, with the use of auctions replacing centrally-determined allocation decisions, and the introduction of trading of spectrum rights to allow the market to identify the most efficient use of each part of the spectrum. In the UK, a report by Professor Martin Cave (Independent Review of Spectrum Management, published for the UK DTI and Treasury in March 2002) carried out the groundwork for this new approach, which was taken forward by Ofcom following its own strategic spectrum framework review in 2004.

Where spectrum has already been allocated, when spectrum trading has not been fully introduced, or where markets are thin and transactions costs are high, an alternative or complementary approach has been to introduce administered incentive pricing (AIP) for spectrum use – charging users for the spectrum they occupy, perhaps using an annual fee per amount of bandwidth used. These prices are set to reflect the opportunity cost to spectrum users of the spectrum they occupy – in effect the value which is foregone by precluding alternative use of that spectrum. It is generally accepted that spectrum pricing, if executed well, can provide incentives for spectrum users to use their spectrum more efficiently, and hence over time benefit society as a whole. For example, an annual spectrum fee might influence individual user decisions over time about how much spectrum they wish to use and how much they are prepared to invest in new spectrum-saving technologies.

Spectrum pricing (see Ofcom's Policy Evaluation report, July 2009) has been applied for some time to UK mobile radio and telephony, but has been implemented more extensively over the past decade – covering for example fixed point to point links, satellite earth stations and business radio. It is applied not only to commercial users but also public sector users of the spectrum. For example, in his 2005 Independent Audit of Spectrum Holdings, Martin Cave recommended that AIP should be more widely applied across public sector spectrum holdings, including the spectrum occupied by the Ministry of Defence. Ofcom since then has implemented a further programme of spectrum pricing, including proposals in 2008 for its introduction for maritime and aeronautical uses.



## Application of AIP to broadcasting

In his 2002 report, Professor Cave argued that AIP should be applied to spectrum used by terrestrial broadcasters just as it would be applied to any other spectrum user:

“Broadcasters like other major users of spectrum must use spectrum efficiently, and there should be effective mechanisms to ensure this. ... The review recommends that spectrum pricing should be applied over the coming decade to all spectrum which is used for broadcasting” (Executive Summary, para 124).

Cave noted, though, that the manner and timing of any spectrum charges would need to be designed to ensure that the wider public policy objectives for broadcasting were properly taken into account, and also to take into account the fact that some commercial broadcasters (ITV and Five) already paid an implicit fee for spectrum use in the form of their licence fees and PSB obligations.

Ofcom issued a consultation document on the application of spectrum pricing to broadcasting in July 2006 (*Future Pricing of Spectrum Used for Terrestrial Broadcasting*) and a statement in June 2007. It noted that broadcasters were now almost unique in not paying AIP for spectrum, although they occupied a significant amount of spectrum that would be valuable for a range of other uses – for example defence, mobile services, aeronautical and maritime. Like Professor Cave, Ofcom pointed out that many other government and other public agencies, including police, fire and ambulance services, pay for the spectrum they use. Ofcom’s final decision was to introduce AIP for terrestrial broadcasting from 2014 onwards (the delay was largely to enable the digital switchover process to be completed), and these plans are still on track.

Ofcom said it would set the level of AIP for broadcasters nearer the 2014 date, to take into account available market evidence about opportunity costs at the time. Results of the digital dividend auctions may be relevant. The charges will be levied on the DTT multiplex owners, currently the BBC, Digital 3 &4, SDN and Arqiva, being the relevant Wireless Telegraphy Act licensees. It is difficult to assess the precise impact of any new charges on individual broadcast channels using these DTT multiplexes. The multiplex licensees might pass on some or all of the new charges to the broadcast channels they provide services to, but equally they may be incentivised to use spectrum more efficiently so sharing any costs with a wider range of users. Ofcom has noted, however, that the likely charge per main PSB channel would be relatively low compared with the annual revenues and profits of those channels.

The benefits of applying spectrum pricing to broadcasting are similar to those of the wider benefits associated with AIP across all spectrum. Ofcom argued that, contrary to the views expressed at the time by some broadcasters, there is scope for broadcasters to adopt more efficient use of the spectrum. For example over time, multiplex capacity could be used more efficiently, investments could be made in spectrum saving technologies, and in the longer run, individual channels could make decisions about whether they need to be on the DTT platform or could rely instead on satellite, cable and broadband. Spectrum pricing not only influences the decisions made by spectrum users, but can also inform wider policy decisions about how the spectrum should be used and whether capacity should be reserved for particular uses.

Some broadcasters argued that the social benefits of PSB should be taken into account when deciding whether or not to introduce spectrum pricing for broadcasting. The BBC at the time questioned whether it made sense to levy a charge, only to have to raise a similar amount from the licence fee to pay for it. However Ofcom made the case that it makes economic sense to charge for the inputs (like spectrum) required by PSB delivery and to then ensure it is properly funded, rather than to subsidise such inputs in order to reduce the cost of provision. Most economists point out the disadvantages involved in subsidising inputs: investment decisions are distorted and the true cost of providing any particular public service is disguised. Ofcom noted that subsidising spectrum use to help support PSB becomes an increasingly blunt and potentially ineffective weapon, as markets converge, and argued that “in the interest of both transparency and economic efficiency, we consider that it is better to focus interventions to secure socially desirable outcomes on the downstream market for outputs rather than through interventions in the allocation and use of spectrum.”<sup>1</sup>

### **Impact of AIP on public service content**

Both Cave and Ofcom, however, accepted that the introduction of AIP would need to be accompanied by consideration of the implications for PSB and how public service content can be secured in the new system.

In its 2006 consultation document on spectrum pricing for broadcasting, Ofcom noted that “the most significant issue with applying AIP to spectrum used for broadcasting is its potential impact on the financial capacity of broadcasters to deliver PSB and other socially desirable but perhaps commercially non-viable broadcasting services. This raises the challenge of how to maintain the desirable level of such services once AIP has been introduced” (Consultation document, Para 1,27). Ofcom goes on to say that there will be several opportunities to consider how to address this challenge before AIP is introduced in 2014, the most notable being the recent PSB Review and future government reviews of public funding of PSB and of the TV licence fee.

In its PSB Review, Ofcom reiterated its plans to introduce AIP for broadcasters in 2014, and also repeated that it will consider carefully the potential effects on PSB output before introducing AIP “and examine policy and regulatory changes that may be appropriate to address or mitigate these” (PSB Review Phase 2, Para 6.36, page 97). This message is repeated again in the PSB Review final statement (Para 5.17). Although the PSB Review does not expand on this point, the earlier Ofcom consultation on spectrum pricing suggests a number of options for mitigating the effects of AIP, including:

- New funding from government for PSBs to cover some or all of the ongoing costs of AIP
- A lump sum upfront grant to PSBs based on future forecast levels of AIP
- Increase in the TV licence fee.

---

<sup>1</sup> Ofcom, *Future pricing of spectrum used for terrestrial broadcasting*, July 2006, para 3.38

We think that this issue warrants more attention in the current debate. How much broadcasters are charged in the form of AIPs obviously affects their ability to fund PSB, and Ofcom has the discretion to set those charges. One option is to discount the AIP. But, as noted above, it can be persuasively argued that AIPs should be set at a level which encourages efficient spectrum use and reflects spectrum opportunity costs. If AIPs are set in this way, alternative measures will be needed to protect PSB. It would make sense to examine how this might be done now as part of the wider Digital Britain debate. We think a proposal for using AIP proceeds to fund PSB can effectively address the two main concerns – the impact of the introduction of AIP on PSB (which will happen in any event) and the need to meet funding requirements for PSB outside the BBC (which is the focus of Digital Britain).

### **A proposal for a new Public Service Content fund, supported by AIP proceeds.**

We suggest that the way to address both the above concerns – the impact of AIP and the shortfall in PSB funding outside the BBC – is to devise a new model which re-invests the proceeds of AIP, via a new Public Service Content Fund, into the provision of public service content by non-BBC providers.

In general terms, the annual proceeds of AIP applied to broadcasting spectrum would be channelled into a new Fund, which could then be allocated specifically to the provision of priority public service content – such as local or regional news – by the best available providers, through a contestable process.

In the next section we examine in detail how much might be paid by each of the multiplex licensees and their broadcaster customers. In general, however, based on expected multiplex allocations post-DSO, it is likely that the BBC would be the largest single contributor, implying a direct transfer of funding from the BBC, via the new Fund, to other public service content providers. A further substantial amount would be generated from purely commercial broadcast use of the DTT multiplexes – i.e. from those channels that do not currently have public service obligations nor currently pay anything towards PSB provision. This would be new funding for public service content, replacing the declining value of the exiting spectrum subsidy. Finally, part of the AIP proceeds would be contributed by Channel 4 and the current commercial PSBs (ITV and Five). They would see a small increase in their operating costs to cover the charges, but their ability to bid for public service funding from the new Fund would help offset this.

Compared with the likely counterfactual in which AIP is introduced for broadcast spectrum and the proceeds are transferred to the Exchequer, this is all additional money for public service content.

How well does this model rate if assessed using Ofcom's own criteria?

- First, it is highly transparent. The AIP methodology is clear and well tested, and the amount of funding raised will be apparent to all. The funding body will be obliged to explain its allocation decisions and who gets how much and what for will be much clearer than is the case with the current system of subsidised spectrum.

- Second, the allocation of funding to public service content will be clear and have a much higher degree of specificity. Rather than supporting a mixed schedule channel, funds will be directed to very specific public service content such as news or serious factual programming.
- Third, it will be flexible. Rather than awarding 10 year commercial PSB licences with remits which are hard to alter quickly, the new Public Service Content Fund will have more flexibility in allocating funds from year to year and to a range of different users – not just the existing recipients of subsidy. New cross-media content providers would have an opportunity to bid for the funding alongside more conventional broadcasters. Although some areas of provision may require longer term contracts – for example a local news service – others would allow a degree of flexibility from year to year in type of content, level of investment and provider.
- Fourth, this approach can be designed to ensure greater accountability. The funding panel would be expected to establish clear performance criteria for any recipient of funding, and to monitor the delivery of specified public service objectives (possibly involving Ofcom, the NAO).
- Fifth, unlike other forms of direct government funding, this process can be set up to bypass direct government involvement – funding is raised through a charging mechanism independently operated by Ofcom, and funds would be allocated by an independent body or panel set up for that purpose. Editorial independence from government should therefore be protected, assuming the body charged with allocation is properly independent. This will be especially important in the case of news provision.
- Sixth, as noted by Ofcom in the PSB Review, spectrum is a public asset. This proposal helps ensure that citizens of the UK see a tangible return from the spectrum in the form of socially desirable public service content.
- Finally, this model has the advantage of fairness. It shares some of the BBC’s funding with other providers, and also calls on commercial channels to make a contribution to public service content. In particular, it transfers value from the BBC to the rest of the sector without a major change in the licence fee mechanism. The link between the public and the BBC, via the licence fee will be maintained, while additional funding is created for non-BBC public service content partly via the AIP charges paid by the BBC.

Although in many ways this proposal could be seen as a modification of the old model (in which spectrum was implicitly traded for PSB obligations), it is in every way an improvement of that model, being more transparent and flexible and allowing greater specificity of PSB investment. As noted above, spectrum subsidies are an increasingly blunt tool. This proposal extracts the value from spectrum and reinvests it in public service content with much greater precision and accountability.

A key remaining criterion by which this proposal must be judged, though, is that it must raise enough funding now and into the future for it to meet the challenges identified by Digital Britain. In the next section we examine just how much money could be involved and how sustainable this approach might be over the next 5 – 10 years and beyond.

## 4. Scale of funding available

### Introduction

Any view on the AIP's potential to support public service content naturally depends on the scale of fees likely to be received, which in turn depends on the 'per Mhz' pricing ultimately set. As mentioned above, Ofcom intends to set AIP nearer 2014, and the total fees to be charged are therefore not yet known. In 2006 Ofcom stated<sup>2</sup>:

"Ofcom has reviewed the evidence available to it at this time, and estimates that the opportunity cost of spectrum currently reserved for [DTT] is of the order of ... approximately £16-24 million per annum for each of the three PSB multiplexes, and approximately £10-20 million per annum for each of the three commercial multiplexes, based on their anticipated use of spectrum post DSO"

In this section we make updated estimates of the fees that might be levied, and to place these in context against the economics of broadcasters and multiplex operators.

### Spectrum valuation methodologies

Broadly there are four methodologies for valuing spectrum, each of which could be expected to generate quite different answers:

1. The market value, as measured in transactions
2. The replacement cost to accomplish the same outcomes without using spectrum
3. The economic value in its current use
4. The highest economic value of alternate uses

#### 1. Market value

Although DTT spectrum is not per se traded directly, the commercial multiplex licensees have established a market for channel capacity which indicates the value to the marginal broadcast user of available spectrum at any particular time. There are challenges associated with using these market values to value broadcast spectrum, since trades are somewhat infrequent and terms are often not published but they can provide a useful benchmark when used in conjunction with other approaches. Three relatively recent deals where the terms have been unofficially reported include ITV's 'more than £5m' per year<sup>3</sup> for a National Grid Wireless slot in March 2005, Channel 4's £12m

---

<sup>2</sup> Ofcom, *Future pricing of spectrum used for terrestrial broadcasting*, July 2006. Ofcom used the same estimate its *Second Public Service Broadcasting Review Phase 2: preparing for the digital future*, September 2008. See also Aegis & Plum Consulting, *Estimating the commercial trading value of spectrum*, 2 July 2009, published by Ofcom (discussed below)

<sup>3</sup> <http://www.dtg.org.uk/news/news.php?id=757> . National Grid Wireless has since been acquired by Arqiva

per year<sup>4</sup> for a another NGW slot in November 2005, and Discovery's 'as much as £10m per year'<sup>5</sup> for a slot from SDN in October 2008.

In 2006 Indepen/Aegis reviewed traded prices for multiplex capacity as part of its work in estimating the opportunity cost for broadcast spectrum, and derived an annual value of £0.5m/Mhz. This was estimated using contemporary market values and multiplex operator economics. We have updated this analysis based on more recent (higher) trade values and information on the operating expenditure of SDN:

**Figure 1 Spectrum value based on recent market transactions<sup>6</sup>**

|  |               |  |
|--|---------------|--|
| Current annual value of a channel slot | £8.0 m        | Estimate based on 2008 Discovery purchase of SDN slot for "as much as £10 million "              |
| Channels per mux                       | 10            | Based on 10 slots on SDN 64QAM mux   |
| Implied annual value of mux            | £80.0 m       | SDN revenue in 2007 was £36m, though this would be based in part on older, lower value contracts |
| Less 'non-spectrum' value              |               |  |
| Operating costs of mux                 | £12.0 m       | Based on SDN 2007 costs  |
| Margin on mux opex @ 10%               | <u>£1.2 m</u> |  |
|  | £13.2 m       |  |
| Net annual value of spectrum           | £66.8 m       | Based on mux value less opex and margin  |
| Spectrum used by mux                   | 42.7 MHz      |  |
| Implied value of spectrum per year     | £1.56 m / MHz |  |

This figure of £1.56m per MHz is higher than earlier figures based on this methodology. This is for a number of reasons, including increasing per-channel prices and an increasing number of channels per multiplex.

## 2. Replacement cost

An alternative approach is to examine the costs to broadcasters of achieving similar levels of output with less spectrum, for example through the use of spectrum saving technologies. If, say, multiplex operators could reduce their spectrum usage by 1 MHz at a cost of £1m, then they should be willing to accept an offer of this amount or more for a 1 MHz block. This effectively sets an upper bound on the value of the spectrum.

<sup>4</sup> <http://www.dtg.org.uk/news/news.php?id=1324>

<sup>5</sup> <http://www.variety.com/article/VR1117994143.html?categoryid=15&cs=1>

<sup>6</sup> Human Capital, based on press reports, SDN 2007 Directors' Report and Financial Statements and estimates. We recognise that post 2007 these operating costs will rise as coverage increases but equally we would expect channel valuations to rise for the same reason.

In July 2009 Ofcom published a report by Plum and Aegis<sup>7</sup> considering the value of spectrum for a wide variety of uses, including cellular, fixed point-to-point and broadcast. Plum assessed the value of broadcast spectrum by considering the costs to broadcasters of reducing their usage.

Plum considered various technical options for the broadcasters to free up spectrum, including

- The use of more, lower powered transmission sites. This would allow a ‘single frequency network’, rather than using different frequencies for adjacent sites to avoid interference, as is the case today
- The use of DVB-T2, an improved transmission technology, for all terrestrial TV (it will anyway be deployed on multiplex B later this year to support HDTV)
- Abandoning terrestrial broadcast by using satellite transmission for all current analogue and DTT households

In practice there are of course substantial challenges to each of these approaches. In particular, each would require co-ordinated action by broadcasters and impose costs and inconvenience on households (such as a requirement for a new set top box, or a redirected aerial). Thus they do not represent immediate options, but rather serve as different ways to benchmark the value of spectrum.

**Figure 2 : Plum’s estimates of the cost of using less broadcast spectrum<sup>8</sup>**

| Option  | Additional transmission costs  | Consumer impacts  | Cost / MHz <sup>9</sup>                           |
|---|--|---|---|
| More transmission sites                           | Net cost of transmission from 1000 low powered sites instead of 80 high powered transmitter sites (assumed to be zero) | Some loss of coverage in rural areas, requiring provision of replacement satellite dishes                     | £7.5m/MHz (one off)<br>£1.1m/MHz (annual)         |
| Use improved terrestrial transmission technology  | No material difference in costs  | Households need new set top boxes to receive the service  | £0-25m/MHz (one off)<br>£0-3.7m/MHz (annual)      |
| Use satellite instead of terrestrial transmission | None. Any significant services will already be broadcast by satellite.   | Satellite dishes and STB for around 16m households (plus enablement of multiroom, not included in cost shown) | £60-80m/MHz (one off)<br>£8.9m-11.8m/MHz (annual) |

<sup>7</sup> Aegis & Plum Consulting, *Estimating the commercial trading value of spectrum*, 2 July 2009. This report updated earlier work in the same area by Aegis & Indepen

<sup>8</sup> Human Capital, adapted from Plum

<sup>9</sup> Plum figures were calculated on a one-off basis. For comparison, we have converted them to annualised figures, based on a 10% discount rate and a 10 year term



Putting aside the practical challenges, in theory these figures represent the sums multiplex operators would accept to give up spectrum and instead make use of the relevant alternative. Thus the *lowest* figure is the one that sets the value of spectrum, since a multiplex operator would make use of the cheapest alternative.

The low end '£0' figure in Plum's analysis of the 'improved terrestrial transmission technology' option assumes that all households self-provide new set top boxes to view HDTV broadcasts. This would enable all broadcasting including SD to make use of efficient DVB-T2 technology at no additional cost. This seems to be an aggressive assumption, given that it is likely to be many years before HDTV is widespread for second sets. We therefore feel that the more appropriate figure to use is the £1.1m/MHz/year figure derived from using more transmission sites, although we suspect that this figure may also be somewhat low given the assumption that there is zero incremental cost from operating 1000 rather than 80 transmission sites.

Note that all these are the costs a single multiplex operator would incur to reduce its spectrum usage. However, if one operator paid for satellite dishes and STBs for all households, the incremental cost for other multiplex operators to make use of this infrastructure would be nil. In other words, if the six multiplexes moved in parallel to the new infrastructure, the cost per MHz would be one sixth the figures shown above.

### 3. The economic value of current use

The third approach to valuing spectrum would be to consider the economic value generated. This would mean estimating the business models of each user and assessing how much of the economic value created depends on access to the spectrum they are using. Spectrum prices would then be set at a level based on the economic value created by the marginal user. However such an approach has multiple challenges. A bottom up approach to estimating business models requires significant access to commercial data and market knowledge, and the result will change from year to year. We therefore have not further considered this approach.

### 4. The highest economic value of alternate uses

A further weakness of the third approach is that it only takes into account current standard broadcast use. In fact, more economic value might be created by other uses – for example mobile broadband or mobile broadcasting. Ideally this value would be reflected in spectrum prices. However, for cellular operators not all frequencies have the same value. Blocks of spectrum that are 'harmonised' - that is have been designated for potential mobile use across Europe - are far more valuable to mobile operators than the unharmonised spectrum. In particular the 800 MHz band has already been designated for mobile use in a number of European countries, including the UK<sup>10</sup>. However the remainder of DTT spectrum is unharmonised for mobile, and therefore will have very little 'alternate-use' value. Thus while this methodology could determine the value of the 'mobile harmonised' block, it would leave open the question of the appropriate value of this remainder.

---

<sup>10</sup> See <http://www.ofcom.org.uk/consult/condocs/800mhz/statement/>



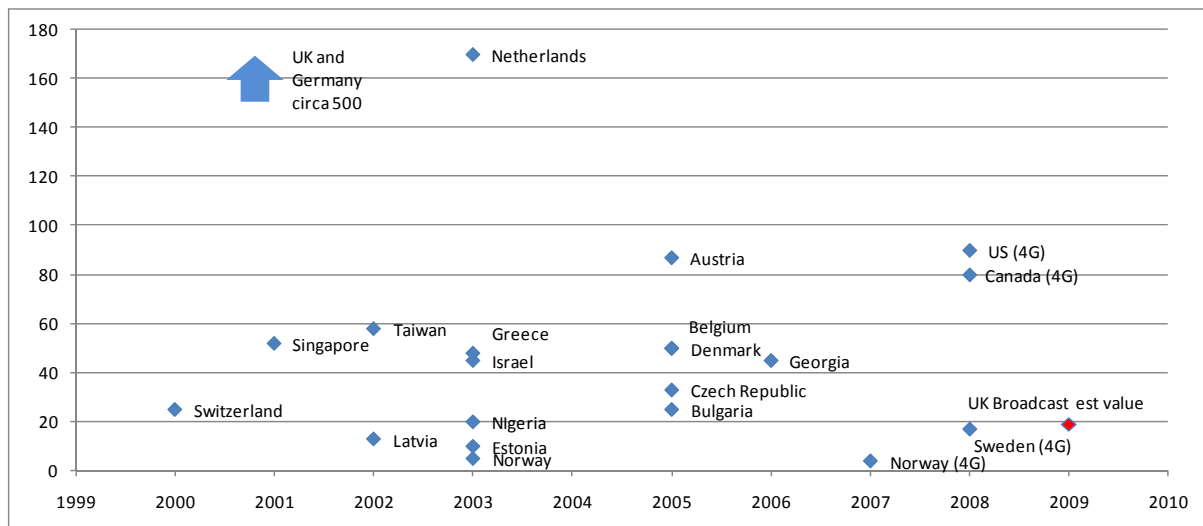
## Estimated Spectrum Value

The two most practical methodologies, market values and replacement cost, give very roughly equivalent valuations of broadcast spectrum - £1.6m and £1.1m per MHz per year respectively. Given that is somewhat less sensitive to changes in input assumptions, for the following discussion we have chosen to make use of the £1.6m market value based figure. This figure would give a total annual value for current DTT spectrum of **£400m/year**.

It is important to emphasise that any such figure is based on a number of judgements, and there is thus room for legitimate debate on the most appropriate figure. Moreover, the setting of AIP charges needs to be seen in the context of balancing numerous objectives, rather than simply being a mechanistic process. Thus the above figure should be seen as indicative rather than definitive.

While it is not possible to directly compare these numbers against those from international markets, placing our estimated broadcast spectrum value in the context of major spectrum deals concluded in other territories over the last 10 years indicates that it is within a reasonable range.

**Figure 3 : International Spectrum Auction Prices (Euro cents per MHz per capita)<sup>11</sup>**



## Deriving AIP from Spectrum Value

In light of the wider context, Ofcom's approach is to set AIP charges well below the estimated value of the relevant spectrum, on the basis that:

“the risks to optimal use posed by setting fees too high are more significant than those associated with setting them too low as setting them too high could result in the loss of existing services that are efficient in their use of spectrum, or the lack of new services that might otherwise have evolved if the spectrum was priced appropriately”<sup>12</sup>

<sup>11</sup> Source: PriceWaterhouseCoopers, *Releasing the value of Spectrum*, 2008. Human Capital analysis

<sup>12</sup> Ofcom, *Policy evaluation report: AIP*, July 2009

Ofcom has set AIP at various levels relative to its estimate of spectrum value, dependent on the particular circumstances in question. For instance in current Ofcom consultation on maritime spectrum pricing, the ratio of proposed AIP to estimated spectrum value ranges 60% for UK maritime VHF use, to 0% where exemptions have been agreed, for example for ship radio licences.

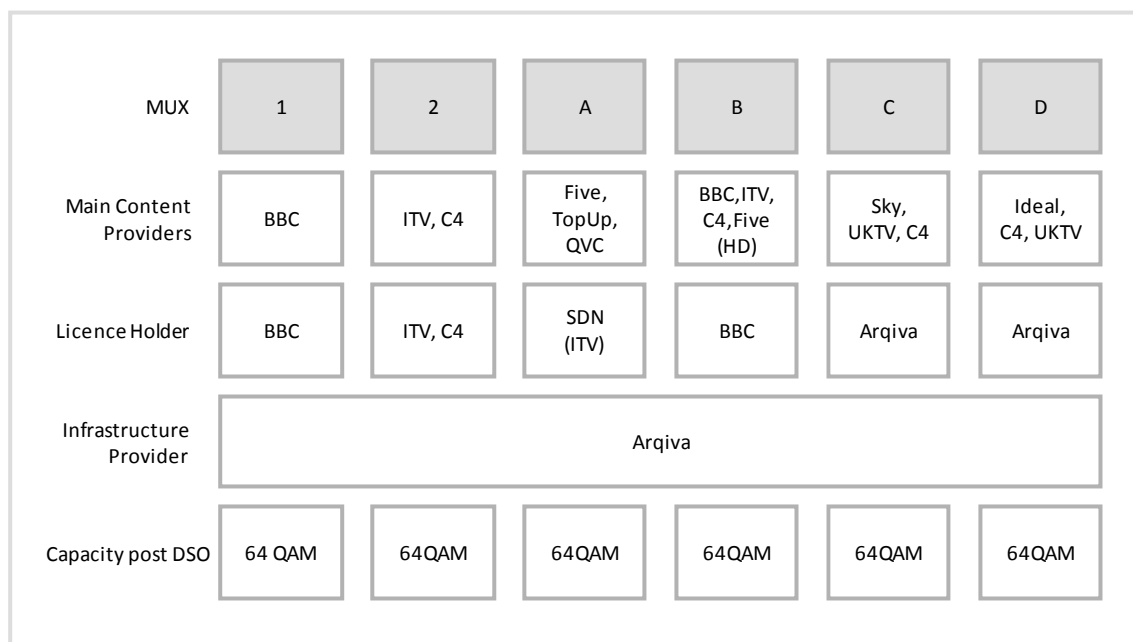
In the illustrative analysis that follows, our starting point has been to use an AIP set at 33% of our estimated spectrum value, to reflect a prudent approach and to take account of the risks to most commercial broadcasters of setting the AIP at too high an initial level. This results in a total AIP value of **£133m/year**, and ensures that even if there were a downward movement in spectrum values, the AIP would be sustainable.

Note that differentiated discounts for different multiplexes are at least conceivable. For instance, multiplexes facing less commercial risk might receive a lower discount. However, we have not factored this into our analysis.

### Implied level and distribution of AIP charges

Multiplex operators are the licensees of broadcast spectrum, and in the first instance AIP charges would be borne by them. However, as discussed above, in some cases broadcasters are themselves multiplex operators:

**Figure 4 : Multiplex Owners, Operators and Content Providers (post DSO)**



In the following tables we present two alternate views of how a £133m AIP might be distributed – firstly by multiplex operator, and secondly by broadcaster. This latter would be the result if all

multiplex operators were able to fully pass through the AIP charge to their respective broadcaster customers on a channel by channel basis.

**Figure 5 : AIP by Multiplex and Broadcaster**

| Annual cost by Multiplex    |                  |                |                 |
|-----------------------------|------------------|----------------|-----------------|
| Operator                    | Total Value (£m) | AIP Adjustment | AIP Charge (£m) |
| BBC (PSB1)                  | 66.6             | 33%            | 22.2            |
| Digital 3&4 (PSB2)          | 66.6             | 33%            | 22.2            |
| SDN                         | 66.6             | 33%            | 22.2            |
| BBC Free to View Ltd (PSB3) | 66.6             | 33%            | 22.2            |
| Arqiva                      | 66.6             | 33%            | 22.2            |
| Arqiva                      | 66.6             | 33%            | 22.2            |
| <b>Total</b>                | <b>399.7</b>     |                | <b>133.2</b>    |

| Annual cost by Broadcaster |                  |                 |
|----------------------------|------------------|-----------------|
| Broadcaster                | Total Value (£m) | AIP Charge (£m) |
| BBC                        | 92.9             | 31.0            |
| ITV                        | 35.8             | 11.9            |
| Channel 4                  | 55.6             | 18.5            |
| Five                       | 23.1             | 7.7             |
| Sky                        | 35.9             | 12.0            |
| Other                      | 124.8            | 41.6            |
| <i>EIT/PAT/PMT</i>         | 8.1              | 2.7             |
| <i>Unused</i>              | 23.6             | 7.9             |
| <b>Total</b>               | <b>399.7</b>     | <b>133.2</b>    |

To what extent would the multiplex licensees be able to pass on the AIP charges to their broadcaster customers? The BBC controls two multiplexes, ITV shares one with Channel 4 and controls another via its fully owned subsidiary SDN<sup>13</sup>. Multiplexes 1, 2 and B will be virtually fully occupied by BBC, ITV and Channel 4 content (plus Five HD), and therefore any AIP charge for these multiplexes would ultimately be carried by some or all of these broadcasters. It would be for the BBC as multiplex licensee, for example, to decide how much of its charge to pass on to ITV, Channel 4 and Five.

The SDN multiplex and the two controlled by Arqiva (which acquired them via its 2008 purchase of National Grid Wireless) carry a variety of content from a wide range of broadcasters such as Five, QVC and Sky. AIP charges could be borne by the multiplex operators, or their broadcaster customers.

Broken out accounts for most of these multiplexes are not available. However, SDN does publish accounts that give a picture of a standalone multiplex operation:

<sup>13</sup> ITV is considering a disposal of SDN

Figure 6 : SDN P&L<sup>14</sup>

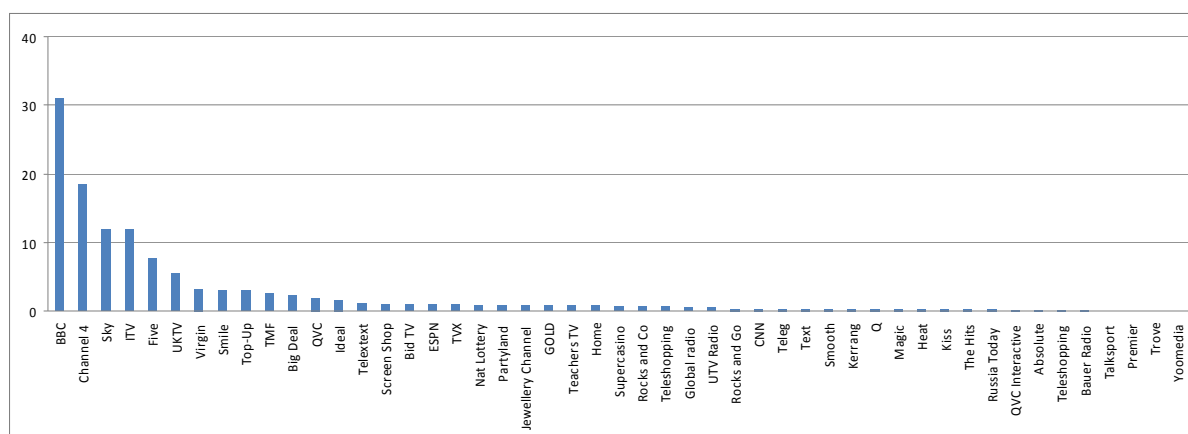
|                  | 2006   | 2007   | 2008 |
|------------------|--------|--------|------|
| Turnover         | £24.8m | £35.8m | £33m |
| Operating Profit | £10.8m | £23.8m | n/a  |
| Return on Sales  | 42%    | 66%    | n/a  |

This is obviously a picture of a highly profitable business, with a return on sales of 66% in 2007 compared to ITV plc's 13%. It is suggestive of a business pricing according to what the market might bear rather than a margin on its own costs. While we do not have accounts for Arqiva's multiplex operations, given that Arqiva operates in the same market as SDN and it has similar input costs, it seems plausible that Arqiva's accounts would tell a similar story.

Were Arqiva and SDN to face a new AIP charge for the spectrum licensed to them, they would need to decide whether to pass this increase in their costs through to their broadcaster customers. The profitability shown above suggests that they *could* absorb material AIP charges without passing cost through to broadcasters, though whether they *would* is of course a different question. Presumably they would wish to, though their ability to do so would depend on the broadcasters' ability to absorb such an increase. If SDN and Arqiva's pricing already reflects what the market can bear, then they would have to absorb AIP new charges rather than passing them through.

On a full pass through basis the BBC, with a wide portfolio of TV channels and interactive services, would pay significantly more than any other broadcaster. Channel 4, with eight channels (Channel 4, Channel 4 HD, Channel 4+1, E4, E4+1, More 4, 4 Music, Film 4) would carry the next largest fee. However, the long tail of smaller channels from Sky 3 and Virgin 1 through to Russia Today, QVC and Teachers TV would in aggregate carry a cost comparable to the BBC.

Figure 7: Indicative spectrum charges by broadcaster, pass through basis (£m/year)

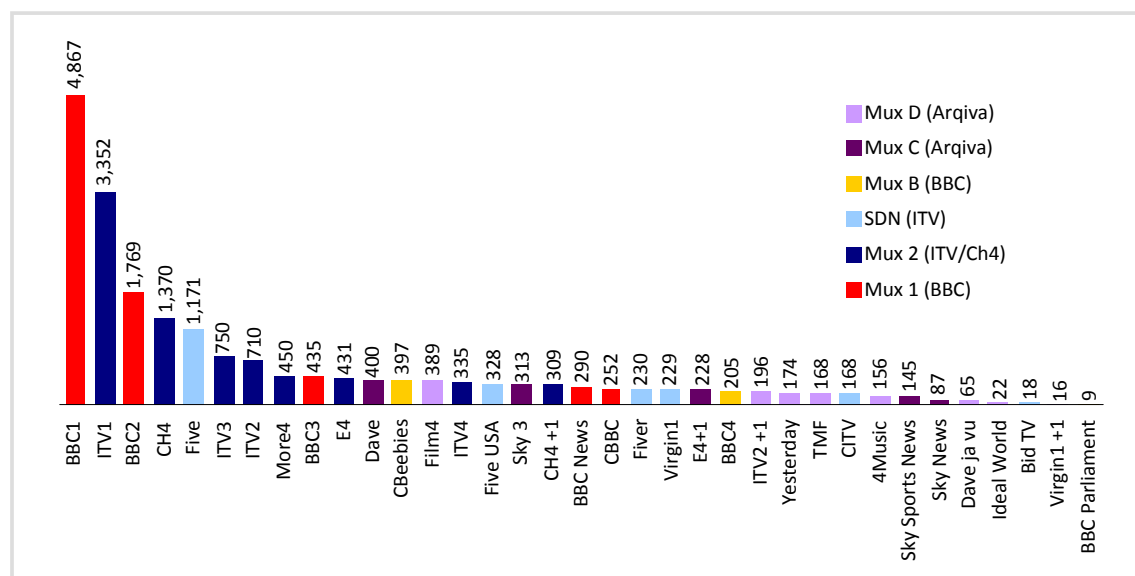


<sup>14</sup> SDN 2007 Directors' Report and Financial Statements, ITV plc 2008 accounts

## Impact of AIP charges

A channel's ability to accept increased charges at the expiration of its agreement with a multiplex operator will depend on its own economics. DTT channels have diverse business models, funded by the licence fee, advertising, subscriptions and retail sales. They also have very different scales, with BBC1 having 295x the DTT viewing of Virgin1 +1 (itself not the smallest channel).

Figure 8 : DTT Volume of Viewing (millions of individual hours)<sup>15</sup>



Notes: Excludes certain channels not measured by BARB such as CNN, Teachers TV and Gems TV  
Multiplex allocations as at August 2009

As a consequence the value of a channel slot will vary dramatically to the using broadcaster, even if the underlying spectrum, as a fungible commodity, may have a fixed market price. Revenues for the smaller channels are not readily available. However, by pro-rating the NAR of ITV's multichannels according to the volume of viewing on different platforms, we can estimate ITV2 +1's revenue from DTT at £13m<sup>16</sup> (equivalent to £2.7m / MHz / year<sup>17</sup>). This clearly places an upper bound on the value of a channel slot to ITV2 +1, though of course it could be worth more to others. ITV2 +1 is approximately two-thirds down the list of channels above, and it is likely several channels have lower revenues than this.

While an AIP charge that effectively became a fixed cost per channel would be relatively worse for the smaller channels, this may be mitigated by the fact that these channels are in general on either Arqiva or SDN multiplexes. As discussed above, these multiplex operators might absorb some of the cost of AIP charges without passing them fully through to broadcasters. While the aggregate impact on the industry would be unchanged, this would mean that the impact on programming budgets

<sup>15</sup> BARB, Year to 19<sup>th</sup> July 2009

<sup>16</sup> BARB, ITV plc 2008 accounts, Human Capital analysis

<sup>17</sup> Assuming 10 channels per mux

would be reduced. Nonetheless, the impact of AIP on the smaller channels (on whichever multiplex) will be an important issue for Ofcom to consider as it implements its plans for AIP.

All channels will have the option to reduce their AIP by using less spectrum. At one extreme, they could simply choose not to broadcast on DTT. Numerous channels are currently available only on cable and/or satellite, and some current Freeview channels might make the same choice if required to pay a charge reflecting the value of DTT spectrum. However, there are other options to reduce the amount of spectrum used without leaving Freeview platform entirely. Picture quality can be varied<sup>18</sup>. For instance, BBC2 was previously typically broadcast at 2/3 the bitrate<sup>19</sup> of BBC1, giving a somewhat lower but still acceptable picture quality. Reduced programming hours can allow channels to share a particular slot. For instance, Yesterday and Virgin1 +1 do this, broadcasting from 6am to 6pm and 6pm to 6am respectively.

### Future trends

Any view of the value of spectrum will be impermanent. Its value for TV services, its cost to replace and its value to other users will all vary over time. Factors that might increase the value of DTT spectrum may include:

- DSO, which will grow DTT audiences as the remaining analogue viewers switch primarily to Freeview
- Rising demand for spectrum for mobile applications, as mobile broadband adoption and usage rise
- Launch of HDTV services on the Freeview platform
- Loss of share by the largest channels, improving the economics of smaller channels
- General economic recovery

Factors that could erode the value of spectrum include:

- Gradually increasing adoption of satellite and cable TV and the rise of IPTV, reducing the size of DTT audiences (which will both reduce the benefits of being on Freeview, and reduce the cost to replace)
- Growth in pay TV multiroom services, which will diminish DTT second set viewing
- Continued pressure on the ad-funded free-to-air business model
- Adoption of improved compression technology such as MPEG-4

---

<sup>18</sup> As a practical matter, a channel could not do this unilaterally – it would need to be implemented in conjunction with the multiplex operator

<sup>19</sup> Stat muxing and decisions to provide higher bandwidth for certain programming types mean that this ratio is not fixed

While it clearly is a complex task to determine the net effect of all these positive and negative factors, the fact that the various drivers of value offset each other suggests that spectrum values are unlikely to leap upwards or downwards between now and 2014.

## 5. Assessment of key issues

In this final section, we examine in more detail some of the key issues raised by the proposal to use spectrum pricing to fund public service content and explain how any outstanding concerns might be addressed.

### Is the funding available sufficient for public service needs?

This question needs to be answered in four parts: likely initial year funding, costs of PSB needs, sustainability over time, and availability of other sources of value.

#### Initial funding

As the above analysis suggests, an AIP regime, with prices set relatively prudently, could generate around £133m of funding in its first year of operation, 2014. Compared with the counterfactual in which AIP proceeds are passed straight through to the Exchequer, this would be all additional money for public service content. In total, therefore, this amount compares well with the Digital Britain objective of £125m.

On the assumptions we set out earlier, around £31m would be contributed by the BBC and £54m would flow from the fully commercial broadcasting sector, representing a net addition of around £85m (assuming in each case a full pass-through of AIP charges by multiplex operators). This can be thought of as new public service funding for non-BBC providers. The remaining part would be a transfer from the existing commercial PSBs and from Channel 4, but the money raised would create a funding pot which could be used in a much more transparent and accountable way than is currently the case. As noted below, measures could be taken to safeguard public interest content on Channel 4 if so thought desirable.

#### PSB costs

Various estimates have been made of the costs of funding public service content priorities. Ofcom's assessment (of over £145m) assumes that all types of existing PSB content would be retained and funded, and makes little allowance for changes in the costs of provision through new approaches to production, distribution or the content mix. It is therefore likely to be an over-estimate of actual needs. In the PSB Review final statement, Ofcom also puts the costs of providing news in the Nations and regions at around £30-£50m (in England) and £7m (for each of the Nations). In reaching these figures, Ofcom says it has made some allowance for sharing of costs with either the BBC or other media partners. However, it is possible that these costs could be reduced further if radical new approaches to, for example, the provision and online distribution of local news were to be adopted. New sources of revenues associated with the proposed new services could also help offset some of the costs – for example the value of cross-platform advertising (where local news is provided by a combined TV, online, radio and print media operator), and the value of any available advertising slots during the 30 minute Channel 3 broadcast window. Further consolidation in the sector, bringing with it the prospect of cross-media working and cost savings, could again have a significant impact on the amount of subsidy needed.



The Digital Britain report suggests focusing on the provision of news as a priority, and on content for older children and some documentary output as secondary priorities. If we assume that there are substantial potential cost savings available from new approaches to local and regional news, and that relatively modest funds are provided for the other two identified priorities, then the total funding requirement may turn out to be significantly less than the £125m suggested in the report. If we take Ofcom's lower estimate for the cost of news provision, together with a modest amount for children's and documentary output, for example, this would indicate annual funding needs of around £75m, substantially less than the CCE proposals would imply.

#### Sustainability over time

A potential weakness of funding based on spectrum value is that its amount cannot be predicted with certainty over time. Ofcom typically sets AIPs for a number of years and reviews them periodically. Although their level is predictable for the first period set, future levels depend on the market circumstances at the time.

We can be reasonably confident, however, that an AIP-based Fund would be sufficient for at least the medium term. First, the amounts likely to be raised are based on prudent assumptions which allow considerable room for upwards adjustment in AIP levels over time. Second, we can also have some confidence that on balance the longer term trend in AIPs for the DTT spectrum would be up rather than down. As explained above, although there has been some recent reduction in demand from broadcast channels for DTT spectrum, the longer term outlook is for HD services to need extra spectrum and to be prepared to pay the price demanded for it. Even if in the very long term, broadcasters prefer to use alternative platforms, other users are likely to place a high value on the spectrum currently used for DTT. It would be possible for the spectrum payments made by those alternative users to continue to be reinvested in public service content.

#### Other sources of value

Although our analysis suggests that AIP on its own should be able to generate sufficient funding for a range of public service content needs in the foreseeable future, it would be possible to secure extra insurance for the long term by combining the AIP approach with other available sources of funding or value. One example already referred to is the benefit likely to be delivered by BBC partnerships in the provision of local news services – which we have included in our assessment of reduced costs of provision mentioned above. However, other aspects of BBC partnership would add further value to the funding pot established via AIP and could be offered to alternative public service content providers alongside direct funding.

In any event, the proposed Fund should aim to maximise leverage from any public funding available. Digital Britain describes as one model the work of the BritDoc Foundation, which was borne out of Channel 4's documentary department a few years ago. The Foundation manages a production fund of £0.5m annually, awarding small grants to leverage big returns. On average their investment is tripled in match funding from other partners – for example international and US foundations, international broadcasters and private investors. More use of this type of model could stretch the impact of a smaller Public Service Content Fund more widely – and deliver much more public value for money than can public funding on its own.

Beyond the BBC, a report for Ofcom's PSB Review from MTM Consultants identified some £70-90m a year of public funding which is currently channelled into public interest new media projects and services by central government and related public bodies such as museum, art galleries, universities and research foundations. This content, it concluded, varies significantly in quality, reach and impact. Again, there is scope for a more imaginative coordination and better use of this funding – some of which could be channelled through the proposed Public Service Content Fund alongside the AIP proceeds and allocated via a similar mechanism.

Finally, Digital Britain has asked Ofcom to assess the costs and benefits of a retransmission levy. Again, any funds raised if this measure were to be adopted could be added to the proposed Fund.

### **Can contestability be introduced into the system?**

In the recent debate, contestability has been elided by some with the use of the licence fee for PSB. Contestability means a competition between alternative providers for access to public funding for the provision of public services. The Digital Britain proposals in fact do not introduce contestability for the licence fee itself – they simply suggest a one-off decision to take part of the licence fee for other uses and they guarantee to the BBC that no more than the agreed amount (3.5%) will be taken. The “contestable” element in the proposals for a contained contestable element of the licence fee is contained in the subsequent competition for the use of that portion of the licence fee.

It is perfectly possible therefore to achieve the same degree of contestability in a system within which the funding comes from AIP proceeds rather than from the licence fee. As with the CCE proposals, the funding is fixed and the competition takes place for how it is used.

We suggest that a model similar to that suggested by Ofcom for the operation of Independently Funded News Consortia (IFNCs) is adopted. An independent expert panel would select the recipients of public funds (whether for the provision of local news or if agreed, for example, children's programming) using agreed selection criteria. The criteria could include quality of proposals, innovation, expertise, track record, contribution to local journalism etc – the key point is that they should be transparent and understood by all bidders, and be capable of subsequent monitoring and evaluation. The performance of successful bidders would need to be monitored and reviewed by a qualified body.

While it is important to be clear about the aims and ground rules of the process, there is a risk with this sort of approach might, if it is too prescriptive, exclude more radical and innovative approaches. For example, if a funding amount is fixed upfront, it is likely that bidders will tailor their proposals to that level of funding, rather than devising new approaches which require less money. Alternatively, a lowest price tender might also fail to deliver public value, if low costs are achieved at the expense of quality. In a paper commissioned for the first Ofcom PSB Review (*The Tender Process for a Public Service Publisher*, March 2005), Robin Mason of Southampton University concluded that a three stage process might be helpful. The first stage would ask for high level expressions of interest from bidders, to a relatively broad specification, with the aim of revealing the range of possible ideas and approaches. This would be followed by a second round of negotiation and a third round in which

final bids were invited. Whichever approach is adopted, it will be important to devise a process which does give a high degree of weight to value for money, and which seeks to encourage new approaches, not old models of provision.

### **Wouldn't AIP adversely affect the Commercial PSB Channels?**

First, it should be noted that, on Ofcom's current plans, AIP is likely to take money out of the broadcasting system, so these broadcasters would stand to be affected in any event. Under the proposals in this paper, new money would flow into the non-BBC provision of public service content – from the BBC and from fully commercial broadcasters using DTT spectrum. This funding would be available for ITV, Five and Channel 4 (as well as other interested parties) to bid for if they wished. Although it would not be guaranteed to them, they would arguably be in a good position to make successful bids because of their expertise and audience reach. Some may gain more funding than they lose in AIP payments. As Ofcom noted in its consultation document on spectrum pricing for broadcasters, the extra payment per channel for these current PSBs would not be significant relevant to their total budgets.

However, if it were wished to provide Channel 4 in particular with a safety net, it would be possible to devise a phased system whereby their element of AIP payments was returned to them automatically for a transitional period in return for clearly specified public service commitments (for example for older children's content). This would have the advantage of increasing transparency and clarity about the value being delivered for the public investment made.

Some commercial PSBs have argued they need the remaining value of the DTT spectrum they occupy to support their few remaining PSB obligations - usually accepted to be national and international news and original UK programming. Regarding the former, work commissioned by the BBC from Human Capital in June 2007<sup>20</sup> found that there were strong reasons for the commercial PSBs to continue to broadcast news and international news as part of their schedules, even if freed from an obligation to do so.:

“As viewers increasingly migrate to multichannel platforms, the role played by news in building reach and channel brand is likely to grow in importance. The need to stand out from competing channels will increase not diminish. At the same time, the opportunity cost of delivering news appears likely to fall – especially for ITV1. For these reasons, ... the commercial PSBs may have on-going financial incentives to include news, as well as some other types of more challenging programming, within the programming mix for some time to come.”

We have not updated this analysis, but do not think that developments since the work was carried out would significantly alter the findings.

---

<sup>20</sup> Human Capital, The Future of News on the Commercial PSBs

Regarding original production, AIP will have only a modest impact on ITV – the scale of payment is small relative to ITV’s total programme budget. Five may feel more of an impact, and Ofcom would need to take this into account when setting the final charges.

**Figure 9 : AIP and production spend (£m) – all channels of Commercial PSBs**

|           | Indicative AIP | 2008 spend on first run commissions <sup>21</sup> | 2008 advertising revenue <sup>22</sup> |
|-----------|----------------|---|--|
| ITV       | £11.9m         | £740m   | £1,425m                                |
| Channel 4 | £18.5m         | £389m   | £790m                                  |
| Five      | £7.7m          | £96m  | £341m                                  |

Thus, once the relatively smaller role of Five in originating content and the effects of any measures to mitigate the impact of AIP on Channel 4 and Five are taken into account, spectrum charges seem unlikely to make a major impact one way or the other on decisions by the commercial PSBs about investment in original UK content.

#### **What about the impact on smaller less profitable DTT channels?**

As we note earlier, the impact on smaller channels will be an important issue for Ofcom to consider as it implements its plans for AIP charges (regardless of how the proceeds are used). However, AIP charges will not necessarily be passed on at all or in their entirety by the multiplex licensees. The current charges may reflect the maximum rent which the DTT multiplex licensees can extract from the market – hence in future they may have to absorb any new AIP charges themselves rather than passing them on. Given the fixed costs of multiplex operation, there would be little point in pricing off a given channel (unless there was another channel who valued the slot more highly waiting to replace it).

However, while this dynamic will provide some protection for the independent channels on the non-PSB multiplexes, it will not help the smaller channels operated by ITV and Channel 4 – as both multiplex owners and channel providers, they will have no choice but to absorb AIP if they continued with their full portfolio of digital channels. As noted above, the total AIP faced by ITV and Channel 4 is small relative to each broadcaster’s size, but AIP might cause them to consider if they would be better off selling some channel slots to third parties rather than using them for their own channels.

To the extent that there are new potential users seeking DTT capacity – for example for new HD services, AIP charges may help in the process of ensuring spectrum reaches those who can extract most value from it, to the benefit of consumers as well as broadcasters. However, if this remains a concern, it could be addressed by introducing differential AIP charging. One option might be for the

<sup>21</sup> Ofcom, *The Communications Market 2009*, p97

<sup>22</sup> ITV, Channel 4 and RTL annual reports. Five figure is for total revenue

BBC's main public service multiplex (Multiplex 1) to be asked to bear more of the total charges levied on the DTT spectrum.

### **... and the impact on SDN and Arqiva?**

While the impact on channels may be mitigated by independent multiplex operators SDN (owned by ITV) and Arqiva absorbing some or all of the AIP charges, this simply shifts the burden.

Since at least 2002 the Government has had the view "that spectrum pricing is a tool which should be applied to all broadcasters"<sup>23</sup>, and the three commercial multiplexes came into their current ownership since this date<sup>24</sup>. It thus seems reasonable to assume that the potential for AIP was factored into the owners' bids on acquisition, and into their plans since. Nonetheless, as Ofcom determines the details of its implementation of broadcasting AIP, this will be an issue for them to consider.

### **Could AIP be introduced earlier than 2014?**

Ofcom's plans are for AIP to be introduced from 2014, and the Government has given assurance that no charges will be introduced until then. However, if it were thought desirable to start funding alternative supplies of public service content before then, two options are available:

- As currently proposed by Digital Britain, pilot funding for IFNCs could be made available from the licence fee switchover surplus, if sufficient amounts are available.
- Alternatively or in addition to the above, the licence fees currently paid by Channel 3 and 5 licensees could be used in the meantime.

### **Isn't this a very complex way of funding PSB?**

It could be argued that a funding mechanism based on AIP is unnecessarily complex. In our view, this is not the case. AIP has been implemented by Ofcom across much of the radio spectrum already, and its application to broadcasting is already planned. In addition, using AIP to fund PSB content is in many ways a refined version of the model which has been in place for the last 50 years or so. Privileged access to spectrum has been exchanged in the past for PSB obligations, and this has worked well. The new proposal simply makes this process more flexible and transparent, and has the added benefit of addressing the needs identified in the Digital Britain report and transferring some value from the BBC to the rest of the sector without the need for a new approach to the licence fee.

---

<sup>23</sup> *Government Response to the Independent Review of Radio Spectrum Management*, 15 October 2002

<sup>24</sup> ITV bought SDN in April 2005, and Arqiva acquired its DTT multiplexes in April 2007

As Digital Britain acknowledges, a change to the licence fee would be a major policy decision and could have significant wider consequences for public service content and its future.

### **Isn't there a problem with hypothecation?**

Finally, use of spectrum pricing to fund public service content could be attacked on the grounds that it would introduce a new hypothecated tax, which is generally disliked by the Treasury, as it reduces flexibility in allocating tax revenues. We regard this as the most serious argument against the use of AIP in the way we are suggesting. However there are two reasons why the Treasury might accept the proposed approach.

First, Ofcom has argued that AIP is a charge and not a tax<sup>25</sup> : “AIP is set in relation to the amount and value of spectrum used, and is linked directly to the right to use that spectrum, which has a value for the user. The intention behind introducing a transparent charge for this spectrum is to make this opportunity cost apparent to the users of spectrum, and any other relevant decision-makers who could affect the efficiency with which the spectrum is used In taking decisions about the level of AIP ... Ofcom is able only to take into account the interests of citizens ... and consumers ... These interests do not include the raising of general revenues.”

Second, hypothecation is not a new policy with respect to public service broadcasting. This is obviously the case with the licence fee itself. But it has also applied to spectrum policy. The principle of using spectrum value in return for public service content has already been well established, as noted above, and the continued use of AIP proceeds for this purpose would be entirely consistent with past policy. Put another way, the value of broadcast spectrum has been hypothecated to the support of public service television for decades – the combination of AIP with contestable funding for public service content merely makes this more transparent.

---

<sup>25</sup> Ofcom, Future pricing of spectrum used for terrestrial broadcasting, June 2007, p28

## 6. About the Authors

### **Robin Foster**

Robin is senior adviser to Human Capital on policy and regulation in the broadcasting and communications sectors. He is currently a member of the UK Government's Digital Britain Steering Board, which is developing proposals for broadband and the future of public service broadcasting in the UK, and was one of the four independent advisers to the UK Convergence Think Tank, which preceded Digital Britain.

Until August 2005, Robin was Partner, Strategy and Market Developments and member of the Executive and Policy committees at the UK communications regulator Ofcom, where he played a lead role in Ofcom's major strategic reviews of broadcasting and telecommunications. Previous senior positions include director of strategy and regulation at the Independent Television Commission and director of strategy at the BBC.

Robin's many publications include a recent pamphlet for the Social Market Foundation which highlighted the role of broadband policy and regulation as a priority for the UK.

### **Kip Meek**

Kip is Chairman of Human Capital and of the Ingenious Consulting Network. He was previously an Executive Board member of Ofcom from its establishment in 2003 until 2007, and while there chaired the European Regulators Group. Prior to Ofcom, Kip was a founding partner and Managing Director of Spectrum Strategy Consultants.

Alongside his role at Ingenious, Kip has been appointed by the government as the 'Independent Spectrum Broker'. He is also chairman of the Broadband Stakeholders Group (a group set up to advise the UK government on broadband issues) and a director of the Radio Centre (the body representing commercial radio in the UK).