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Mind the funding gap

The potential of industry levies for continued funding of public service broadcasting

An ippr report for BECTU and the NUJ

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Contents

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Executive summary

Public service broadcasting (PSB) – television content funded either directly or indirectly by the state and designed to meet specific societal and cultural objectives – is a culturally and economically valuable part of the UK's media landscape. It is popular and valued by citizens, and public service brands – such as the BBC and Channel 4 – are internationally respected.

There continues to be demand for public service broadcasting to be produced by more than one source in the UK, and for UK-based productions that represent the many diverse cultures and ways of life in the UK today.

However, the UK's media landscape has seen rapid change over the past decade and the digital revolution has presented public service broadcasters with huge challenges. The switch to digital due to take place by 2012 means that the implicit subsidies derived from spectrum allocation in the broadcasting system will fall dramatically in value. This will present a huge challenge to the economic basis on which the UK's PSB system relies.

But PSB providers have also responded to technological change. While the growth of the internet saw early predictions that television – and broadcasters in particular – would become redundant in a new digital world, PSB providers have diversified in their offerings, enabling some content to be consumed online via the internet and even accessed via the new generation of smart mobile phones. The BBC's iPlayer, for example, which gives access to its programmes from the previous seven days online, is one of the major content success stories of the past few years.

The funding gap

Following digital switchover, the decline in value of spectrum gifted to PSB providers will cause a funding gap of between £145 and £235 million to emerge.

But PSB providers are already feeling the pressures of the current economic climate and greater competition from digital providers. The continued popularity and desire for PSB among British citizens means that addressing the funding gap and ongoing financial pressures is a matter of great urgency and importance.

Bridging the gap: industry levies

Various different methods and models have been suggested to bridge the funding gap. One solution, shown to be popular with members of the public, is the introduction of industry levies: put simply, a surcharge or tax levied on certain sections of the media industry, based on annual revenue or profit. Industry levies exist in many European nations and are not a new concept.

Examples of levy systems include:

- **Direct media levies** – levies charged on revenue from organisations such as broadcasters, cinemas or video labels
- **New media levies** – levies charged on organisations such as Internet Service Providers and mobile phone operators.

A 1 per cent levy on 'pay television' (subscription-based TV services) in the UK, would yield an estimated *£70 million per annum*, based on assessments from the UK's two major pay TV broadcasters, Virgin and Sky.

A 1 per cent levy on the five major mobile phone operators in the UK (O2, Orange, T-Mobile, 3 and Vodafone) would yield an estimated *£208 million per annum*.

Although these figures remain estimates as a final model would likely be different, clearly these methods could go some way towards meeting the funding gap identified by the industry regulator Ofcom, and ensuring the future of PSB in the UK.

The value of regulatory assets

Digital switchover also presents an opportunity for realising value from released spectrum previously used for broadcasting analogue television signals.

Although estimating the revenue likely to be generated from any spectrum auction is problematic, the Treasury does nonetheless have the option of hypothecating any proceeds towards future funding of PSB. This would represent a one-off 'windfall' payment that could provide some much needed assistance in the short term.

Summing up

Both industry levies and regulatory assets provide possible sources of revenue that could be diverted into the PSB system in order to maintain and strengthen it. Introducing such a system would be a bold move. However, the scale of the challenge facing the UK's PSB system would seem to demand radical solutions. At first glance, levies may not appear politically popular but there is a strong rationale for considering them as a serious option.

1. Introduction

The future of public service broadcasting (PSB) – television content funded either directly or indirectly by the state and designed to meet specific societal and cultural objectives – is uncertain. The compounding factors of an uncertain economic climate and a downturn in advertising revenue, alongside rapid technological change and the looming prospect of digital switchover, have created huge challenges for policymakers and PSB providers. One thing is clear: the public still values public services broadcasting, and wants to see it on their screens. But despite reviews by the Government and the independent regulator and competition authority for the UK's communication industries, Ofcom, it is still unclear how to provide the level and quality of provision to which we have become accustomed.

This report was commissioned by the Broadcasting Entertainment Cinematograph and Theatre Union (BECTU) and the National Union of Journalists (NUJ) in 2008, to explore one option for paying for public service content in the future: industry levies. This option (which involves applying small levies or taxes to different elements of the wider media industry) has been indicated to be popular with the public according to Ofcom research. However, the proposal has been granted little attention in recent policy debates. This report aims to increase awareness and generate debate about this option by illustrating what a levy system might look like, and how much funding it could raise.

Section 1 provides a brief overview of public service provision in the UK, and examines its value, including cultural, societal and economic contributions. In sections 2 and 3 we consider some of the technological and financial challenges that have threatened the current system and the media landscape more generally. The following section provides a brief overview of recent policy debates and developments before in Section 5 we set out an in-depth consideration of what a media levy system might look like. We then consider the continuing role of regulatory assets for funding media content, in Section 6, before providing a final summary of the findings in section 7.

1. Public broadcast services in the UK: an overview

The history of television in the UK is inexorably linked with the concept of public service broadcasting (PSB). At its inception, Lord Reith, the BBC's first chairman, established television's earliest purpose – 'to inform, educate and entertain'[1]. Public service broadcasting – for instance, content broadcast by BBC, Channel 4 and some content from ITV and Five – today has a wider set of objectives but the Reithian principles remain a cornerstone of the PSB ethos.

For nearly three decades, parliamentarians backed the notion of a publicly funded monopoly in broadcast provision. Until the 1950s, the BBC remained the only national television broadcaster in the UK, defended by an influential parliamentary committee that argued 'the right of access to the domestic sound and television receivers of millions of people carries with it such great propaganda power that it cannot be trusted to any person or bodies other than a public corporation' (Beveridge 1951).

Discussions around the introduction of commercial television reflect an understanding of the political economy of television: the relationship between policy, industry and output. It has long been recognised that what appears on television to some extent depends on the institutional circumstances within which the relevant broadcaster operates – particularly in relation to commercial funding models (Elliott 1972, Gitlin 1985, Hart 1988). When finally introduced, commercial television was beholden to strong PSB obligations, and was effectively seen as an extension of PSB provision rather than providing purely commercial competition.

With the introduction in 1982 of Channel 4 – a publicly owned broadcasting company aimed at challenging the public service duopoly of BBC1 and 2 – public service television was charged with taking more risks, behaving more innovatively, and providing content for niche audiences otherwise underserved by the BBC. The addition in 1997 of Five, with limited public service obligations, has made up the terrestrial public service broadcasting offering for the past 12 years.

Today, public service television continues to be delivered by the BBC and Channel 4. Both organisations have specific public service missions: the BBC seeks to 'enrich people's lives with programmes and services that inform, educate and entertain' (BBC 2009), while Channel 4 aims to provide 'a broad range of high quality and diverse programming which… demonstrates innovation… appeals to the tastes and interests of a culturally diverse society… and exhibits a distinctive character' (Communications Act 2003).

Meanwhile, ITV and Five contribute some level of public service provision, delivering content – particularly national and regional news and programming (ITV) and children's programming (Five) – according to quotas set by the Communications Act and periodically reviewed and modified by Ofcom.

The principles of public service broadcasting, defined by Ofcom (Ofcom 2004) are as follows:

- Informing our understanding of the world – To inform ourselves and others and to increase our understanding of the world through news, information and analysis of current events and ideas
- Stimulating knowledge and learning – To stimulate our interest in and knowledge of arts, science, history and other topics through content that is accessible and can encourage informal learning

1. Taken from BBC's mission statement at www.bbc.co.uk/info/purpose/ accessed 22 March 2009

- **Reflecting UK cultural identity** – To reflect and strengthen our cultural identity through original programming at UK, national and regional level, on occasion bringing audiences together for shared experiences
- **Representing diversity and alternative viewpoints** – To make us aware of different cultures and alternative viewpoints, through programmes that reflect the lives of other people and other communities, both within the UK and elsewhere.

There are some inherent contradictions in these principles, with PSB at once tasked with bringing audiences together for shared experiences while also ensuring diversity and representing a range of communities across the UK. The public sphere, as represented by public service broadcasting, must at once be both representative and uniting.

In order for PSB to maintain a balance between these sometimes-competing claims, it must 'negotiate the politics of difference on a daily basis' (Murdock 1999). So, how can broadcasters manage this? In the UK, the plurality of public service provision means that both aims can be accommodated. For example, while the BBC works to deliver a shared cultural experience, Channel 4 can produce programming that 'appeals to the tastes and interests of a culturally diverse society' (Channel 4, 2008) and exposes mainstream audiences to what would otherwise be minority views.

The importance of plurality

There has been a huge increase in the number of television and radio channels and other forms of entertainment content such as DVDs, computer games and, of course, the internet. Nevertheless, UK citizens continue to value plurality – the notion that certain types of programmes should be shown on more than one channel – in public service provision (Ipsos MORI 2008).

Research undertaken by Ipsos MORI highlighted the strength of UK opinion in this area. More than four in five respondents (86 per cent) stated that it was important that news should be shown on more than one of the main television channels. Respondents felt that news was the genre in which maintaining plurality was most important.

A high proportion (76 per cent) also believed it was important to maintain plurality in the provision of regional and national news. When asked if the BBC and ITV should continue to each provide regional and national news, 83 per cent replied that they should. In the devolved nations, this view was even stronger, being held by nine out of ten respondents.

Those surveyed also believed it was important to maintain plurality in some other genres, including factual and current affairs programming. Almost four in five (77 per cent) thought it important that such programming should be shown on more than one channel. This was largely because they believed that factual and current affairs programmes contained opinions as well as facts, and that it was therefore crucial that they conveyed a variety of outlooks.

Across several genres, the key justifications for plurality were that it was necessary to ensure accountability, impartiality and quality. Respondents felt that a lack of plurality would result not only in the public being less informed but, because of a lack of competition, a drop in standards.

Previous research has shown that different providers cater for different audiences. For example, news bulletins from ITV attract audiences from different socio-economic backgrounds to similar programmes on Channel 4 and BBC1 (Ofcom 2004b). Similarly, Channel 4 tends to serve a younger audience, and in its future vision has argued for an expansion to its remit to further enhance provision for older children and young adults (Channel 4 2008). This indicates a further purpose for plurality: that of providing improved access, offering the public an opportunity to find interesting and complementary content at different times of day on different networks (Foster 2008).

To provide plurality, there is a need for continued production of content originated in the UK, whether international, national or regional news, current affairs and factual programming, drama, children's television or comedy. The mixed 'ecology' of PSB in the UK (which is made up of a balance of different funding, organisational and operational models) has supported high-quality programming, and continues to underpin the strength of the UK's broadcasting sector (Foster 2008). In research by Ofcom, 83 per cent of respondents believed it is important that 'programmes made in the UK are shown on the main television channels' (Ofcom 2008).

The economic value of public service broadcasting in the UK

Calculating the value of PSB in the UK is extremely difficult. It can be represented as a measure of the level of subsidy it receives, in terms of licence fee and regulatory assets, as an estimate of the opportunity costs. However, the key strengths and merits of PSB are often non-commercial in nature, and capturing the value of these aspects can be a complex exercise.

Various studies have investigated the extent to which citizens are willing to pay for public service programming on commercial channels, in order to put a hypothetical price on something that is currently received for free. A recent study conducted as part of Ofcom's review of PSB found significant readiness among those surveyed to pay for PSB beyond the BBC. Approximately three-quarters of respondents were prepared to pay for public service programming on ITV1, Channel 4 and Five, up to an average value of £3.50 a month, in addition to the current licence fee. This would equate to £42 per household per annum – over £800 million per annum nationally. Clearly, the value that these respondents put on PSB is significantly higher than the cost of actually delivering such services (Ofcom 2008e).

It has been claimed that PSB can contribute to the wider social, democratic and cultural health of the UK through the range and quality of its broadcasting (Banerjee *et al* 2006). In the past, the BBC has undertaken significant work in order to translate its value by utilising the concept of public value. One of its aims has been to understand how PSB contributes value to people as individuals and citizens, and to society as a whole – for example by contributing to the well-being of society.

PSB also has an impact on the performance of the wider economic market. Recent analysis of the economic impact of the BBC on the creative economy (PwC 2008) estimates that BBC spending on creative activities – defined as content and distribution and excluding overheads and infrastructure – provides a 'gross value added' to the UK economy of approximately £5 billion. Including the BBC's expenditure on overheads and infrastructure, the total gross value added of the BBC increases to around £6.5 billion. This value is accrued in a number of ways – for example, through the value of externalities such as education and training activities that the BBC undertakes, as well as its impact on regeneration, networking building and clustering.

Other studies assessing the value of PSB have included the Cardiff Business School study on the economic impact of S4C (DTZ *et al* 2007), which found that the Welsh PSB provider had considerable indirect impact on supplier effects and income-induced effects. For example, when employees spend their wages and their salaries in their locality on goods and services, this in turn generates further demand. The study found that S4C activity was found to support indirectly 2,100 full-time equivalent jobs over a five-year period. It concluded that the presence of S4C within the creative industries added stability and certainty, generated an estimated £87 million of value added for the Welsh economy in 2006, and hence encouraged investment, skills development and creative excellence.

In another study, the professional services firm PricewaterhouseCoopers (PwC) analysed the impact of Channel 4 on the UK independent sector, on the creative industries more generally, and on the economy as a whole (PwC 2007). The study found that Channel 4 supports a plurality of independent producers and ultimately ensures that a wide range of ideas and voices reach the television screen. It argued that by contributing to the development of regional clusters in the UK economy, the channel bucks the otherwise London-centric trend of the media and creative industries, identifying and nurturing talent 'in a new and unique way'.

To understand the impact of Channel 4 as a public service broadcaster, PwC analysed the impacts of changing the institutional model of the channel from a publicly owned, not-for-profit corporation to one that operated instead on a purely commercial basis. They predicted that the effect would be:

- Increased consolidation and few independent producers
- A reduction in size and plurality of Channel 4 sources
- A renewed focus on London (reduction of activity in the nations and regions)
- Increased barriers for talent
- Reduced risk-taking and lower quality linked to reduced certainty of funding.

Other research has estimated the possible impact of reducing the scale and scope of public funding. In 2006, media advisers Oliver and Ohlbaum Associates argued that the commercial revenue growth resulting from reduced public funding to the BBC would be relatively low, and that there would be a substantial loss of recycling effects – that is, the impact of the BBC's tendency to spend large proportions of its revenue within the UK creative economy. They estimated that for every one pound of income taken away from the BBC, UK programme spend is likely to fall by about 60 pence (Oliver and Ohlbaum Associates 2006).

Meanwhile, Ofcom has stated that BBC's investment in Freeview has been central to the success of Digital Terrestrial Television (DTT), which in turn is likely to increase inter-platform competition. This may increase commercial revenues, as commercial advertising revenues have risen for digital-only channels and more households have been drawn into the pay TV market.

We can see, therefore, that in addition to being valued by UK citizens, evidence shows that PSB providers add considerable value to the wider media market – through network effects, by taking risks that are not open to commercial players and also by promoting and sustaining new technical standards and platforms.

The international value of UK public service broadcasting

The UK systematically performs better than other comparative nations where broadcasting is concerned. The BBC is an internationally respected media brand, with its World Service reaching millions of people worldwide. Similarly, many programmes developed by Channel 4, BBC and ITV have popularity worldwide, and UK PSB content is frequently honoured on the international awards circuit.

In the context of the UK's creative industries, broadcasting is a powerful player in international markets. Estimated total revenue from the sale of UK TV programmes internationally in 2005 was £632 million – an increase of 21 per cent on 2004. In 2007 this figure rose to £663 million, according to the UK Television Exports Survey (PACT 2008) This survey, carried out independently on behalf of UK Trade and Investment (UKTI) and Producers Alliance for Cinema and Television (PACT, the trade body for the independent television, film, animation and interactive industries), concluded that UK television programmes continue to grow in popularity overseas, with sales of format ideas up 53 per cent, to £82 million (PACT 2008).

PSB plays an immensely important role in a successful television industry that generated revenue of £10.4 billion in 2007, more than France (£7 billion), Germany (£9.3 billion), Italy (£6.3 billion) and Canada (£4.4 billion) (Ofcom 2008b).

Meanwhile, compared to other creative industry sectors, radio and television showed above-average growth of 8 per cent per annum, compared to 4 per cent for the creative industries generally and 3 per cent for the economy as a whole (DCMS 2009).

In other respects, too, the UK's PSB sector performs well in comparison to its international counterparts. In 2007, first-run originated output accounted for 49 per cent of all hours broadcast by the European PSB providers, compared to 53 per cent in the UK. UK PSB providers also broadcast the lowest percentage of acquired content (5 per cent, compared to the EU average of 15 per cent) (Ofcom 2008b).

Conclusion

Public service broadcasting continues to be relevant and valued by citizens, as illustrated by viewing habits, opinion polls, and research into 'willingness to pay'. It also forms an important part of a successful UK broadcasting industry, and contributes to the growth and expansion of the UK creative industries more widely. This is an important factor that we should be careful not to overlook – particularly given the Government's commitment to transform the UK into a leading knowledge economy and the continued emphasis on the future of our creative industries.

The value that PSB delivers – both in terms of economic benefits and improved well-being – indicate that PSB is not just about market failure: it also plays a crucial role in UK public life.

Over the coming sections we consider the structural changes threatening the current balance of the UK's broadcast industry – changes that are immediate and are likely to be severe.

2. Technological challenges

The UK's media landscape has seen rapid change over the past decade. Innovations in technology have revolutionised the ways in which people access, consume and indeed create media. The move from analogue to digital has meant that content can be distributed more quickly, easily and cheaply than analogue material, and can be stored for a fraction of the cost while taking up a fraction of the space.

For PSB providers, the digital platform offers both an opportunity and a threat. The biggest challenge is the end of the analogue compact, in which broadcasters have been offered discounted or free airwave spectrum in exchange for broadcasting public service content. The switch to digital, due to take place by 2012, means that implicit subsidies derived from spectrum allocation will fall dramatically in value, and will ultimately challenge the economic basis on which the UK's PSB ecosystem relies.

This section provides a brief overview of how developments in technology have impacted on the media system, from the perspective of the media consumer, and describes the environment in which PSB providers must now operate and survive.

We look at the economic consequences of these changes in more detail in Section 3, but briefly, the main changes relate to new opportunities for audiences to change behaviour in consumption, content creation and communication. For the traditional PSB model, the most important of these is consumption trends.

Changes in consumption trends

Today's media landscape is one of vast choice. Just over 25 years ago, we saw the arrival of the UK's fourth terrestrial television channel, Channel 4. Today, the advent of digital has seen the number of TV channels rocket to more than 400 (Ofcom 2008c). Take-up of multi-channel television has increased rapidly: five years ago, just over half (54 per cent) of UK households had access to multi-channel television, but by 2008 this proportion had grown to nearly nine out of ten households (88 per cent) (ibid). Radio stations have also proliferated hugely, with digital radio providing access to a greater number of niche stations, while internet radio offers instant access to stations anywhere in the world.

Meanwhile, internet take-up has increased rapidly over the past decade. Nearly two thirds of UK households have access to broadband internet, and this number is steadily growing. The internet itself provides a vast range of content – from that provided by existing, traditional media outlets to blogs and other forms of content generated by users themselves. The scale of content and information is huge. The blog search engine Technorati estimates that there are now well in excess of 100 million blogs, while the video-sharing website YouTube receives around 65,000 video uploads on a daily basis.

What impact has this level of choice had on people's consumption habits? The growing range of competing media does not seem to have impacted on the amount of time that people spend watching television. Despite the range of DVDs, video games and internet options on offer, television viewing per day has increased. In 2008, the average British viewer watched 26 hours, 18 minutes of television per week – an increase of 48 minutes from 2007 (Thinkbox 2009).

However, the proliferation of channels has meant that viewing patterns are now more widely dispersed, and while the main five terrestrial channels continue to make up the bulk of television viewing, their share of audiences is in decline (Ofcom 2008c). In 2002, these channels accounted for 77.7 per cent of viewing, compared to 61 per cent in 2007 (Ofcom 2008c).

The increased level of choice has had a significant impact on consumption of news and current affairs programming. Whereas viewers in analogue homes watched a total of 135 hours of national news on the five terrestrial channels in 2006, multi-channel viewers watched only 77 hours (Ofcom 2007). The lowest levels of consumption were among the 16–24 age group, members of whom watched only 33 hours in 2006.

The internet and online public service content

The internet as a source of news and information is growing in significance. However, terrestrial television remains the main source of news for most of the population (65 per cent) (Ofcom 2007). Analysis by Ofcom suggests that the internet is seen as a source of supplementary information rather than a primary source in itself (ibid).

Perhaps the biggest indicator of change to come is the behaviour of younger age groups. Utilising increases in bandwidth and the potential of superfast broadband, 16–24 year olds are beginning to spend more time online than watching television (European Interactive Advertising Association [EIAA] 2007). A substantial amount of their use is dedicated to time on social networking sites. However, the internet is increasingly seen not only as a communication tool or a rich source of information, but as a point of access for audio-visual content, including television programmes. Reacting to this trend, PSB providers have made considerable investment in order to provide public service content (PSC) online.

Public service content online – current provision

We now come to consider public service content and its importance in the online world, looking at the scale available as a measure of financial investment, and the extent to which British audiences access and consume PSC.

As part of its second review of PSB, Ofcom commissioned two reports assessing first, the availability of PSC online (MTM 2008a) and second, the level of economic investment in PSC online (MTM 2008b). These two reports covered all types of PSC, including content that met public service-type principles but may have been provided by commercial operators, individual citizens or non-governmental organisations, art organisations and charities, and government or other providers – in addition to that provided by the public service broadcasters themselves.

The online availability report (MTM 2008a) found that there were significant levels of information and content accessible under the broad PSB categories, including:

- information, search, and reference
- news and comment
- business and commerce
- entertainment and lifestyle
- health
- science and technology
- politics and government.

However, far less content and information was available in other areas, such as:

- arts, culture and heritage
- children
- teens
- community and social action
- learning and education.

Ultimately, because there are no directories of online content, and because the scale of content is so vast and changing so rapidly, it is very difficult to determine once and for all how much public service content is out there. It is easier to determine the scale of content provided by traditional public service providers and the extent to which this remains a central component of British internet users' consumption.

Meanwhile, Ofcom's financial analysis report (MTM 2008b) showed that a number of different bodies were making significant investment in PSC online. It identified the following levels of investment during the 2006/7 period:

- **Central government spending on PSC in the region of £70–£90 million** The largest proportion of this was on the government online information service DirectGov, but this figure also includes investment by government departments such as the former Department for Education and Skills on the teacher.net website.
- **Online news sector annual spending on PSC in the region of £200 million** This included newspapers and other major online news providers, such as Sky.
- **Public service broadcaster annual spending on PSC estimated at £170 million** This was the second-largest segment. In 2006/07 the BBC spent £116 million on bbc.co.uk and a further £37.7 million on BBC Jam.
- **Third sector investment of £60–80 million on PSC online** This incorporated registered and unregistered charities, and voluntary and community organisations.
- **Local and devolved government invested in the region of £45–55 million** This estimate was based on an analysis of ICT and eGovernment spending on PSC online.
- **The education category spent only £6–7 million** This incorporated expenditure on learning resources not captured in other categories such as government and PSB providers.

From scheduled to on-demand viewing

One of the most significant impacts of the internet on consumption of audio-visual media has been the shift from linear, scheduled viewing to on-demand access. The internet is a 'pull' technology, where media consumers request content by accessing certain websites or downloading certain content. This is in stark contrast to broadcast, which is a 'push' technology: it delivers content to the viewer without the viewer having to specifically request it.

The storage and distribution potential of digital content has led to innovations that allow viewers to more easily 'time-shift' content – that is, to watch it when they want, rather than when the schedule dictates. New services such as BT's Internet Protocol Television (IPTV) service BT Vision and Virgin Media's on-demand service enable television viewers to request content and download it to their television, in order to view it at a time of their choosing.

Personal video recorders (PVRs) have enabled viewers to create their own television schedules, time-shifting programmes to start anything from a few minutes to several days after the original broadcast time. Viewers can also automatically store entire series on PVR hard disks, in order to view the whole series from start to finish in one sitting, over a weekend or whenever they choose, rather than waiting for the typical weekly instalment. They can also skip or fast-forward advertisements on commercial channels – something that has been of significant concern in terms of the economics of commercial television.

Within the wider cultural context, the main challenge of on-demand has been couched in terms of a declining power of the traditional broadcaster and the traditional broadcast brand. Previously, PSB providers in particular brought people together, to view the same programme at the same time. This solidified their position both in terms of individual households and families, and in terms of national importance. The latter has been particularly true where channels such as the BBC have brought people together over events of national importance, such as the Queen's Coronation, major sporting events, the first landing on the moon, and Christmas television.

In recognition of its central importance in domestic life, television has typically been scheduled around the family. For example, the watershed, set at 9pm, serves to draw an explicit distinction between the 'family viewing' content (which usually takes place between 5.30pm and 9pm) and the adult television world that follows. In this way, it has been argued, television scheduling underpinned society's expectations of behaviour (for example, expecting children to be in bed by 9pm), and helped to provide a sense of order and continuity in individuals' lives (Silverstone 1994).

Today's technological advances are threatening the importance of schedule, and alongside this, it is often speculated, the power of television 'brands'. However, in reality, the impact may not be as severe as some have predicted. For example, research into use of PVRs (Barwise 2005) has shown that consumers tend to use them to shift programmes by as little as ten minutes, and primarily in order to fast-forward advertisements rather than to discard the schedule entirely. (Of course, this still creates significant problems where the economics of television broadcasting is concerned – an issue that we address in Section 3.)

Moreover, PSB providers have begun to adapt to this cultural shift. The most successful examples of PSC online provided by PSB providers have been those that enable viewers to access content on-demand, such as the BBC's iPlayer and 4oD from Channel 4. Use of these services is growing rapidly: in December 2008, viewers accessed BBC programmes via iPlayer a record 41 million times. Meanwhile, Channel 4's on-demand service is particularly popular among younger age groups. One in six viewers of the television show 'Skins' watched the programme online.

Conclusion

The speed and scale of the technological changes in the media over the past few decades has been dramatic. These changes have caused rapid change within the wider technological and cultural contexts, such as allowing viewers to define their own television schedule and access content on the move on mobile devices, resulting in immense challenges for PSB providers.

Nevertheless, in the main, PSB providers have reacted proactively to these changes, and have sought to remain relevant in an increasingly online, on-demand world. Traditional PSB providers have made significant investment in PSC online and, despite the huge scale of competition, television content produced by PSB providers continues to be accessed and consumed in online environments through innovations such as iPlayer and 4oD.

Continued investment, innovation and availability is likely to remain important. PSC online originating from a wide variety of international sources has been shown to meet Ofcom's principles 1 and 2 of public service described in Section 1 (in other words, informing and stimulating interest). However, significantly less content appears to meet principles 3 and 4 (strengthening cultural identity and raising awareness of different cultures and viewpoints). This is important, and echoes a long-held concern that the high levels of personalisation and choice afforded by the Internet will lead us into 'discursive ghettos'.

As we saw in the previous section, UK viewers place considerable importance on continued shared experiences, and on reversing trends of fragmentation within society. Even in our new technological environment, traditional PSB-type content has a value and rationale, and is essential to UK citizens.

In the next section, we look at the financial challenges that are currently mounting and could act as a barrier to maintaining levels of public service – in both on and offline environments.

3. Financial challenges

In the previous section, we discussed the impact of technological changes on cultural factors, such as the way we access, consume and share media and the ways in which we communicate with each other. We concluded that, despite these changes, PSB continues to be relevant and important to UK citizens. But shifting consumer behaviour is not the only challenge faced by PSB providers. Technological advances have resulted in massive changes to the economic basis and business models of television, presenting new difficulties in finding funding.

This section briefly outlines the funding challenges currently faced by PSB providers in the UK. It sets these out within the wider economic context, considering the impact and further pressures created by the current recession. It then goes on to consider which elements of the media industry are seeing growth (or the potential for growth), looking at infrastructure and subscription services, and content services. Finally, it considers what the shifts in revenue mean for public service content – particularly content originated in the UK.

Funding sources

PSB, and the massive financial intervention in the market that this represents, has long been justified on the grounds of market failure. In other words, without special direction and funding to do so, it is not thought that commercial companies would invest in PSB content. This is particularly the case since this type of content (for example, home-produced drama, children's television, in-depth broadcast national and regional news and current affairs programming) is often expensive to produce.

Table 3.1 shows the level of public interventions to subsidise PSB content starting in 2003/04 and looking forward to 2012/13. Providing accurate figures for the levels of intervention is notoriously difficult. This is because of the implicit nature of some of the funding, the lack of clear alternative scenarios against which to test its value, and limits to the available data.

The main sources of funding are the licence fee and gifted spectrum, that is airwave spectrum provided free to broadcasters in exchange for them meeting certain public service objectives (the latter being measured in terms of opportunity costs). Opportunity costs are particularly difficult to estimate. They are based on lost advertising revenue that could have been gained had the broadcaster shown a programme that was more commercially attractive (in terms of audience and advertising) instead. For some genres, the opportunity cost is particularly acute, and growing. For example, as audience levels for news and current affairs programmes decline, the opportunity costs of these programmes shown during prime time grow considerably.

Table 3.1: Levels of public interventions to subsidise public service broadcasting

Institution	2003/04	2007/08	2012/13
BBC (television and online)	2,700	2,865	3,010
S4C/GMS	105	110	110
ITV plc	280	140	45
Channel 4	175	175	80
Five	40	50	50
Other licensees	25	25	10
Total	3,325	3,365	3,305
Commercial PSB providers	520	390	185

Source: Ofcom estimates, BBC annual reports, financial data from broadcasters
Note: All figures in real 2007 £ million. BBC data for financial years 2003/4, 2007/8, 2012/13; others for 2003, 2008 and 2013 respectively

The most important statistic shown in Table 3.1 is the decline in value of implicit subsidies for the commercial PSB providers – from 520 in 2003/4 to 185 in 2012/13. This represents a decline in the value of public subsidies of £335 million since the introduction of the Communications Act in 2003. If nothing changes in this scenario, the BBC will receive 90 per cent of all public subsidies, up from 80 per cent in 2003 (Ofcom 2008). This situation will do little to preserve the plurality that the UK public so highly values.

Ofcom estimates that in order for the same level of public service content available today to be provided by 2012, public funding of between £330 and £420 million will be necessary. Existing regulatory assets are predicted to contribute £185 million, as outlined above. This leaves a funding gap of between £145 million and £235 million (Ofcom 2008).

This estimate is based on an assessment of three factors (Ofcom 2008):

- The level of investment commercial PSB providers would be likely to make in a range of different types of programming in the future, based on their relative profitability
- The amount of content that audiences are likely to want in the future, assuming that current demand does not change
- Whether the wider market is likely to make a greater or lesser contribution to each type of content in the future.

As competition for advertising revenue increase, dramatic declines in profitability are expected for many genres. In the first quarter of 2009, advertising revenues on commercial television are predicted to experience a 17 per cent fall (Sweney 2009). For example, in 2007, Google surpassed ITV1's advertising revenue for the first time, and with the growing recession, the outlook for ITV is not good. The advertising slowdown has already had a significant impact on jobs and programming at the broadcaster, with several broadcasts delayed and further job cuts predicted over the next few months. The managing director of ITV brand and commercial has announced that the broadcaster is 'scrapping for its life' (cited in Holmwood 2009).

The wider economic context

The UK's media industry could not be expected to be immune to the wider economic climate in which it exists. The UK economy is predicted to shrink by up to 4 per cent over the coming year. Advertising revenues have already fallen into decline, and are predicted to shrink further over the period of the economic downturn. Advertising revenue is strongly correlated to GDP growth, and as the UK moves into a recession, this is bad news not just for PSB providers, but also for many commercial media providers (Deloitte 2009).

For example, newspapers have already begun to make significant cutbacks, including shedding staff as the combination of declining advertising revenue and technological change (with many now accessing news online) hit home. At a recent event to discuss the future of newspapers, Emily Bell, content director of Guardian Digital, stated:

> 'We could be on the brink of two years of carnage for Western media. In the UK, five nationals could go out of business, and we could be left with no UK-owned broadcaster outside of the BBC. We are facing complete market failure in local papers and regional radio. This is a systematic collapse – not just a cyclical downturn. Even the surviving brands will go through a period of unprofitability.' (cited in Beckett 2008)

Even media mogul Rupert Murdoch has instructed News Corporation and the newspapers in the News International stable to prepare for a 'lean year' in 2009 (cited in Sweney 2008b).

This is not a situation peculiar to the UK. The US has experienced similar casualties, with newspaper giant Tribune (owner of the *Los Angeles Times*, *Chicago Tribune* and *Baltimore*

Sun, among others) filing for bankruptcy in December 2008, the *Minneapolis Star Tribune* following suit in January 2009, and significant job losses for media firm Bloomberg in February 2009. Meanwhile, in France, President Sarkozy has announced financial state aid for the newspaper industry, including tax breaks for delivery and doubling the value of government advertising in order to help the industry through the recession.

While the difficulties faced by other parts of the media industry do not have a direct impact on PSB, they nonetheless massively change the context in which the discussion regarding future funding takes place. The former assumption that market failure is likely to reduce with the advance of digital technologies is increasingly discounted. In any case, there have long been concerns about investment in areas such as news. While many have previously heralded the potential of the internet to provide news content, research has shown that primary sources of news and news gathering remain limited to a few large players: it is opinion, rather than facts, that have multiplied in the digital age (Davies 2008).

As other sources of public service content come under increasing pressure, and certain genres become more costly and commercially attractive, PSB – and in particular, plurality in PSB provision – is likely to become more important to citizens, not less so.

Media revenues

Alongside the economic difficulties currently being experienced across the media, there continues to be money in the media system. However, with changing consumer habits and business models, income is shifting from traditional media companies to new entrants, due to a number of trends:

- Advertising income is shifting from traditional terrestrial broadcast television to digital and online services.
- The economics of online advertising are vastly different to television advertising – particularly in that online advertising is substantially cheaper.
- Emerging business models have resulted in people increasingly paying for subscription services, such as pay TV, voice and data services on mobile phones, and internet services – especially broadband.

We now look at these trends in more detail.

Shifts from terrestrial to digital and online services

Ofcom's analysis suggests that structural changes are driving advertising towards digital media. It estimates that overall, the compound annual growth rate for all advertising between 2008 and 2020 will be 0.6 per cent, with television advertising declining by 0.8 per cent and response advertising (advertising targeted according to users' selections) growing by 1.2 per cent (Ofcom 2009).

The rise in internet advertising spend is a well-documented phenomenon, with most attention focused on the competing incomes of search giant Google and ITV as a indication of the rapidly changing times. In 2002, Google earned £77 million in UK advertising, while Granada and Carlton earned a combined £1.5 billion. In 2007, Google's UK advertising revenues (of £1.3 billion) outstripped ITV plc's net advertising revenue from its ITV1 licences (£1.2 billion) (Ofcom 2008). In the context of the current recession, Google's profits are slowing but nonetheless significant, with profits of £275 million recorded for the final quarter of 2008.

As a result of the anticipated potential of online advertising, some existing companies, eager to maintain a stake as revenues shifted, purchased some emerging popular internet services for very high figures. News International spent US$580 million on MySpace in 2005, while

Google purchased YouTube for US$1.65 billion in 2006. Microsoft paid out £117 million for a 1.6 per cent stake in Facebook just over a year later.

Since people do not pay to use these services, their value is largely determined by their popularity and the wider potential to convert investment into advertising revenue. However, speculation by players such as News International on the popularity of these sites has not been proved wrong. MySpace has in excess of 150 million users, and is particularly popular among younger age groups and for music services. In 2007, YouTube was the third most popular site globally in terms of minutes spent on the site. In the US, 12.6 billion videos were watched during September 2008, while in the UK 55 per cent of internet users watched a video clip online. Facebook is the fifth most popular site in terms of global minutes, and has over 120 million active users (Meeker 2008). There is much speculation as to the long-term potential for advertising revenue of some internet services – in particular social networking sites.

Cheaper online advertising

Online advertising is comparatively cheaper than other forms of advertising, such as print or broadcast. Because of the expansive nature of the internet, the supply of advertising space can easily exceed the demand for advertising. The cost both of banner ads and rich-media adverts have fallen as the number of impressions increases (Meeker 2008).

The different economics at play have proved problematic both for broadcasters seeking to make content available and commercially viable online, and for newspapers, which are seeing significant growth in online usage at the same time that print sales fall into sharp decline.

For newspapers, print circulation has an estimated 10 per cent of the potential reach of online, while online advertising revenue contributes about 10 per cent of total advertising revenue (Karp 2007).

Meanwhile, the success of some on-demand services has been muted for commercial PSB providers because the amount of advertising revenue that can be gained is significantly less. Channel 4, for example, showed just three minutes of advertising during an online version of the programme ‘Skins’; on digital television, the channel shows nine minutes of advertising in the same period (one hour) (Sabbagh 2009). It is generally considered that online viewers are less tolerant of advertising than television viewers.

This aside, there is speculation that ultimately, advertising will follow eyeballs, and gradually online advertising revenue will increase rapidly, at the expense of print and television. This may, however, depend on companies developing more targeted advertising techniques, collecting greater data about their users, and pushing messages to them on this basis. Social networking sites and services such as Google’s Gmail email service will have a definite advantage in this regard.

Infrastructure and subscriptions

Another trend in media revenue is that income is increasingly generated through subscription services. In the UK, the two major pay TV operators are BSkyB and Virgin Media. Despite the economic downturn, BSkyB continues to see customer growth. These results are partially attributed to the success and popularity of the Sky+ digital recorder. At the time of writing, the cost of a basic Sky package (including broadband and voice telephony services) is £16.50 per month. The most expensive package is £55.75 per month. Added to this, Sky earns further revenue through the Sky Box Office service, which enables viewers to pay to watch premium movies on demand.

Meanwhile, Virgin Media offers a range of packages including telephony, broadband (including fibre optic broadband) and television, ranging from £5 to £38 per month for a bundle that includes free UK calls, fibre-optic broadband up to 20Mb and access to 165 digital channels.

The popularity of mobile broadband is also growing rapidly. In 2006, 5 million mobile internet modems were sold. The value of mobile broadband is expected to rise to in excess of £68 million by 2012. With the introduction of the Apple iPhone, Google's G1 phone, the Blackberry Storm and Nokia N97 over the past year, mobile broadband take-up has escalated rapidly in the UK. This is predicted to be an area of significant growth in the years to come. In Japan, mobile broadband use nearly matches that of PC internet use.

It is these services that are predicted to be best placed to see out the recession, since their revenue comes from subscriptions rather than advertising (Ernst and Young 2009). Notwithstanding the current economic climate, analysts have identified mobile broadband and superfast broadband as areas likely to experience significant growth in users and income over the next few years (Meeker 2008).

So, amid such rapid technological change and evolution, some commercial entities are continuing to gain profit from the media sector. These companies are, of course, providing services that customers value and desire – they would not be successful if they did not. But their success also depends on factors other than simply commercial investment and exploitation of the market. In order to survive, content services – which is what, at a very basic level, these companies are selling – need content. There is a complex interplay between investment in public service content and those services operating outside the public service system. It is to this interplay that we now turn.

Investment in UK-originated productions

In the UK, public service channels account for more than 90 per cent of all spending on original UK television programming. Aside from Sky (through Sky News and the Arts Channel), the Discovery Network and the social networking site Bebo (which has made a small investment in original content), the majority of commercial media players in the UK invest little if anything in original UK content.

However, over four fifths of respondents to the Ofcom survey agreed that 'it is important for the main television channels to provide programmes that are made in the UK and reflect life in the UK' (Ofcom 2009). In addition, the success stories of the digital media world undoubtedly gain value from public service content.

For instance, both YouTube and Google Video provide access to public service content, created and invested in by public service providers. A quick search of YouTube UK reveals that original programmes such as 'Midsomer Murders' (ITV), 'Trial and Retribution' (ITV), 'Lark Rise to Candleford' (BBC1), 'Wallander' (BBC1), 'Skins' (Channel 4) and the 'IT Crowd' (Channel 4) can be seen in full on YouTube or the Google video service.

Equally, a huge selling point of superfast or mobile broadband is the 'anytime, anywhere' access to one's favourite music, films and television programmes. In this context, the rise of copyright infringement has been the subject of huge debate over the past few years, and is likely to continue into the future. Leaving this thorny issue to one side, it remains a fact that content produced as a result of investment by PSB providers (alongside other audio-visual content, of course) is a strong and attractive reason for people to pay for broadband subscription services, whether mobile or fixed.

For example, while Virgin TV's cable customers watched more than 500 million items of broadband content last year, the BBC's iPlayer accounted for almost 20 per cent of programmes watched (Sweney 2009c).

Elsewhere, the BBC iPlayer, available on several smartphones including the iPhone and the Nokia N97, has been attributed with boosting the success of mobile television and driving uptake. BBC websites are the most visited after Google by Britain's 5.7 million smartphone users (Khan 2009).

Despite the promise of user-generated content, most media consumers continue to value 'quality', and therefore expensive, productions (Deloitte 2009). User-generated content clearly has a role to play in a digital media age – it can empower people, give citizens space to have their say, and encourage and stimulate creativity – but it is never likely to replace a demand for quality drama, comedy, news and current affairs.

Conclusion

The economic challenges facing the UK media industry should not underplayed. They result in part from the current economic climate, but are also due to a number of sector-specific factors, including technological and behavioural change. The 'multiplier' effect of all these factors combined means that many players within the media industry face extremely challenging times in the years to come.

Certain elements of the media industry continue to gain revenue, but the increase in spending on subscription services is unlikely to help free-to-air public service content.

The challenges facing PSB are acute, and should not be considered in isolation from the trends affecting the rest of the industry. A decline in content investment across the board is likely to mean that PSB – in particular, a plurality of PSB provision – will become more, not less, important.

Clearly, difficult decisions need to be made to ensure that levels of public service are maintained and the UK's media continues to meet the needs and desires of UK citizens. In the following section, we outline the policy context within which options are being proposed, and within which decisions will ultimately be taken. We then go on to highlight the potential of one particular solution – industry levies – as a mechanism for transferring income from some richer parts of the media into funding public service content that benefits everyone – commercial players, PSB providers, citizens and society as a whole.

4. The current policy context

PSB has been the focus of significant attention over the past year with policy reviews taking place in Government (BERR 2009) and Ofcom (2009). This section briefly summarises these and provides a recent historical context to set out the policy context within which decisions about the future of PSB are being mooted and will be taken.

It focuses on four key documents:

- The Communications Act 2003
- Ofcom's first review of public service broadcasting (Ofcom 2004)
- Ofcom's second review of public service broadcasting (Ofcom 2009)
- The Digital Britain review (BERR 2009)

Each of these is described below.

The Communications Act 2003

In 2003, the Communications Act established a converged regulator for a converging media market, in the form of the Office of Communications (Ofcom). This body brought together the five pre-existing regulators – Oftel, the Radiocommunications Agency, the Radio Authority, the Independent Television Commission (ITC), and the Broadcasting Standards Commission (BSC).

The Communications Act set out a framework for continued public intervention in order to preserve PSB in a changing technological environment, and defined what types of programmes should continue to be produced. It made some moves to strengthen commercial broadcasters, by deregulating ownership restrictions and reducing content regulation. However, it stated that all terrestrial broadcasters continued to be tied to structural support for the UK production sector in terms of quotas for UK original production, regional production and independent production.

The Act also set out Ofcom's duties in relation to PSB, providing the regulator with two statutory objectives:

- To review how well the existing public service broadcasters are meeting the purposes of PSB
- To make recommendations to maintain and strengthen the quality of public service broadcasting in the UK.

Ofcom's reviews of public service broadcasting

In order to meet the statutory objectives set out above, Ofcom has undertaken two reviews of PSB since the Communications Act came into force, as described below.

The first review

The first review took place in 2004, and launched a series of consultations seeking to define the principles of PSB, from which the four principles mentioned in Section 1 emerged. This first review made many arguments that are still considered pertinent today:

- That terrestrial PSB was unlikely to survive digital switchover, as the value of licences for ITV and Five decline and the funding model for Channel 4 became increasingly threatened
- That without action, the BBC was likely to become the sole provider of PSB
- That innovation in the PSB sector was lacking – particularly when looking at how terrestrial channels had responded to technological changes.

One of its key proposals was the idea of a 'public service publisher': a fund that could be distributed to creators of public service content online to provide competition to the BBC and spur innovation in online environments (Ofcom 2007b).

The second review

Ofcom is obliged to undertake a review every five years, but it brought forward the timing of its second review by a year, in response to the rapid nature of change within the media landscape. As such, this second review took place against a backdrop of growing urgency. During the review process, ITV threatened to surrender its terrestrial licence early, in a campaign to have its public service obligations reduced, while Channel 4 made increasingly alarming predictions regarding its future.

In phase 1 of the second review, Ofcom outlined four different models of a public service landscape, as follows:

- Model 1 – Maintaining the status quo (with declining public service responsibilities for commercial PSB providers or additional funding to support those which remain high public priorities)
- Model 2 – Relying solely on the BBC
- Model 3 – The BBC and Channel 4 acting as the main providers of PSB, with limited funding available for other services delivered by alternative providers
- Model 4 – A reduced BBC, with contestable funding for all other public service provision.

The first of these four models, elsewhere labelled 'evolution', gained most support from responses to the consultation. However, this option would require bridging a significant funding gap to maintain current levels of PSB provision. Ofcom's review outlined the following four options for funding:

- Direct public funding, including direct taxation
- Opening up licence-fee funding or BBC assets to other providers (often referred to as 'top-slicing')
- Regulatory assets, including privileged access to spectrum and increased advertising minutage
- Industry levies.

During the review process, the BBC put forward its own proposals, which included sharing technology such as iPlayer and premises for the production of regional news, and waiving the fees it currently charges for publishing television listings – proposals that it estimated could be worth up to £120 million (BBC 2008). These proposals were backed by ITV, which was, at the time of writing, in the process of drawing up a provisional agreement with the BBC designed to make regional news 'much more cost-efficient' (McNally 2009). The proposals were also cautiously welcome by Channel 4. However, it is unlikely that they alone would be sufficient to bridge the funding gap and provide the funds required for continued provision of PSB at current levels.

Ofcom concluded its second review with the publication of *Phase 3: Putting the viewer first* (Ofcom 2009). The main recommendations and findings to emerge from this can be summarised as follows:

- The BBC should remain the cornerstone of public service broadcasting in the UK, and should take on a role of pioneering the development and take-up of content across new platforms.

- The idea of 'top-slicing' the BBC's funding for programmes and services should not be pursued. However, the licence fee switchover surplus, allocated to the BBC to drive forward the process of digital take-up and switchover, continues to be a credible option for bridging the funding gap.
- To ensure plurality, a second organisation should be established alongside the BBC. This organisation should have a sustainable economic model and with a strong public service role embedded at its core, and should be based on partnerships, joint ventures or even mergers between Channel 4 and other organisations such as BBC Worldwide or Five.
- There should be an immediate reduction in public service obligations for ITV but, going forward, commercially owned networks should retain a modest but important public service commitment.

The review process is now complete, but Ofcom still has substantial further work to take forward, including:

- Further analysis of the proposals put forward by the BBC to share infrastructure and expertise in order to bridge the funding gap (so-called 'partnership proposals')
- Immediate considerations regarding exactly where and by what extent ITV's licence obligations will be reduced
- Further exploration of the suggested partnership models involving Channel 4.

Ofcom's review process was complicated by the fact that a government review, Digital Britain, ran simultaneously to its final stages, and its interim report also made recommendations for the future of PSB, described below.

The Digital Britain review

The Digital Britain review was set up by the UK Government in late 2008 and sponsored by the Department for Culture, Media and Sport (DCMS) and the Department for Business, Enterprise and Regulatory Reform (BERR). It is headed by former chair of Ofcom, Lord Carter.

Its original remit included evaluating the impact of digitalisation and the new technologies on public service broadcasting assets and public service licences, both in the UK as a whole, and in the nations and regions. This would be carried out alongside a vast range of other activities, including examining options for maximising participation and levels of broadband service across the UK, internet safety and media literacy, and intellectual property and the problem of piracy online.

An interim report was published in late January 2009, shortly after the publication of Ofcom's statement on the future of PSB (BERR 2009). The key interim recommendations are as follows:

- Before the publication of the final report, the case should be considered for public incentives to enable further next-generation broadband deployment. One suggestion involves using the licence fee switchover surplus for this purpose.
- Before the publication of the final report, to establish whether a long-term sustainable second public service organisation can be defined and designed. Such an organisation would draw in part on Channel 4's assets but have a re-cast remit. The review should begin by looking at possible partnerships with public sector bodies – for example, between Channel 4 and BBC Worldwide – but should not rule out other options or solutions, including partnerships with private organisations such as Five.

The final report is due in spring 2009.

Conclusion

While discussions and debate have taken significant steps forward insofar as definite options for the future are now proposed and being debated, there still remains much to decide when it comes to the future of PSB. With the publication of Ofcom's second review and the interim report from the Digital Britain review, government and Parliament have a number of recommendations on which to build. But ultimately it is likely that new legislation will be required, and the prospect of a new Communications Act remains.

The need for additional funds to support the PSB system is clear, and the option of top-slicing the BBC licence fee is largely discounted: Ofcom, the Government and the Conservative Party have all declared that they are against this option. Alternative solutions have been proposed (most notably, partnerships between Channel 4 and Five and Channel 4 and BBC Worldwide respectively), but the exact manner in which these would bridge the funding gap remains unresolved. Both these partnership proposals involve inherent risks, and it is not yet clear how far either could go to provide a long-term solution to the structural changes that present the greatest challenges to PSB in the UK.

However, there is one solution that to some seems obvious but that has attracted little attention within the debate so far: industry levies. In the next section we set out some brief models to illustrate how such a solution could work.

5. The potential of industry levies

The size of the funding gap estimated by Ofcom that will be present if we are to maintain current levels of PSB is significant. We have seen that the financial challenges for PSB are large and likely to remain so as technological change continues to occur and competition continues to grow. If we are to maintain current levels of public service broadcasting, new funds need to be released to bridge this funding gap from 2012, but debate continues about where to source these funds. One possible solution could be to set industry levies.

Public opinion research conducted for the PSB review (Ofcom 2008) found that regulatory assets and levies were generally considered plausible solutions, with the other option – direct taxation – the least popular option. Levies are not new: levy schemes exist effectively in some form or other across Europe and in other countries such as Canada.

In this section we consider a range of types of levy, some of which are in use in other countries, alongside others that would represent a new style of public service funding. The section incorporates case studies of other countries that use levy systems to fund public service media to illustrate how such schemes work in practice. It also presents a series of figures, which are intended to demonstrate how levy systems could, and do, work. There are several different permutations that could be put into practice to close part or all of the funding gap identified by Ofcom.

The levies considered here are those set on:

- Recording equipment or blank media
- Retransmission
- Direct media
- New media.

Each of these is described below.

Recording equipment or blank media levies

In order to compensate copyright holders for copies made within fair-use or fair-dealing guidelines (in other words, not to compensate for illegal file-sharing or copying), many countries in Europe have introduced small sales taxes or levies placed on recording equipment or blank media.

The newest piece of equipment to which such a levy could be added is a personal video recorder (PVR), which allows consumers to record programmes from television to a digital hard drive to watch at a later date (commonly called time-shifting).

The UK is one of the few countries in Europe not to have such a tax.

Estimated yield from recording equipment or blank media levies

We used data from the UK Expenditure and Food Survey (EFS – see Appendix 1 for a detailed description of the EFS data) to estimate total annual expenditure on the following categories of goods that would be suitable candidates for the imposition of a levy: recording equipment, blank media and computer equipment. These are detailed below.

Recording equipment

The categories of recording equipment on which information is available in the EFS comprise:

- Video cassette recorders (VCRs)
- DVD players/recorders

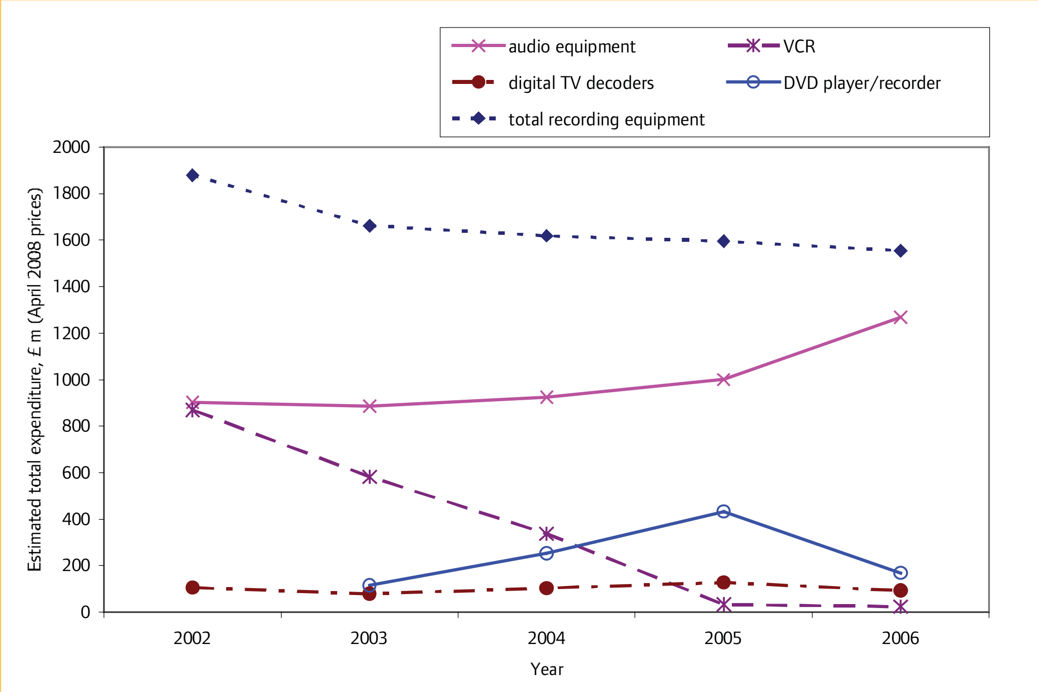
- Digital TV decoders
- Audio equipment (for example, CD players and recorders and hard-disk audio recorders).

With the exception of VCRs, none of these categories of goods is 100 per cent made up of 'recording equipment', as some DVD players, digital TV decoders and audio equipment items have no recording function. However the EFS does not collect separate data for (for example) DVD players as opposed to DVD recorders, so these are the most disaggregated categories that we can use with the data available.

Figure 5.1, below, shows aggregate total expenditure for the years 2002–06 inclusive for each of these items, as estimated using the EFS data. (The results from the EFS are reweighted and 'grossed up' to national aggregate levels to make them compatible with the other statistics presented in this report.)

Figure 5.1: Estimated aggregate expenditure on recording (and playback) equipment, UK, 2002–06

Source: Expenditure and Food Survey



Expenditure on VCRs has been on a downward trend since the first data point used here, in 2002/03. By 2005 the obsolescence of the VCR meant that expenditure on new VCRs was negligible. Expenditure on digital TV decoders is relatively stable, at a low level of around £100 million per year. Expenditure on DVD players and recorders rose rapidly between 2003 (the first year they were recorded as a separate item of expenditure in the EFS) and 2005, but then dropped to around £200 million in 2006. Expenditure on audio equipment has been on the increase, particularly between 2005 and 2006.

The estimated yield from a levy on recording equipment depends very much on what items are included in the levy. Total expenditure on audio and video recording and playback hardware has been roughly stable, at between £1.5 billion and £1.6 billion per year (in real terms) since 2004. If a levy were introduced on this wide range of hardware, a 1 per cent levy on the retail price would raise a maximum of around £16 million. However, it would probably be difficult to secure political acceptability for a levy this widely defined, because much audio hardware (and some video hardware, albeit a decreasing proportion) is playback-only – in other words, it has no recording functionality.

If a hardware levy were confined to video products (rather than audio products) only, the potential yield would be much lower. In 2006, total expenditure on DVD recorders and players, digital TV decoders and VCRs was only around £285 million. Hence a 1 per cent levy on video hardware alone would raise less than £3 million if expenditure continued at this level. However, spending on video hardware in 2006 was around 40 per cent lower than in 2004. This was probably due to several factors, including decreasing hardware costs, increased use of PCs to record video (a point we return to below), and increased use of digital video downloads. If these trends continue, the future revenue stream from a levy on video recording hardware looks very limited.

Blank media

Information is available in the EFS on the following types of blank media:

- Audio media (for example, CDs, minidisks, cassettes and vinyl)
- DVDs (blank and pre-recorded)
- Video cassettes (blank and pre-recorded).

Figure 5.2, below, shows calculations of aggregate spending on each type of blank media, derived in the same way as for Figure 5.1.

Figure 5.2: Estimated aggregate expenditure on recording (and playback) equipment, UK, 2002–06

Source: Expenditure and Food Survey

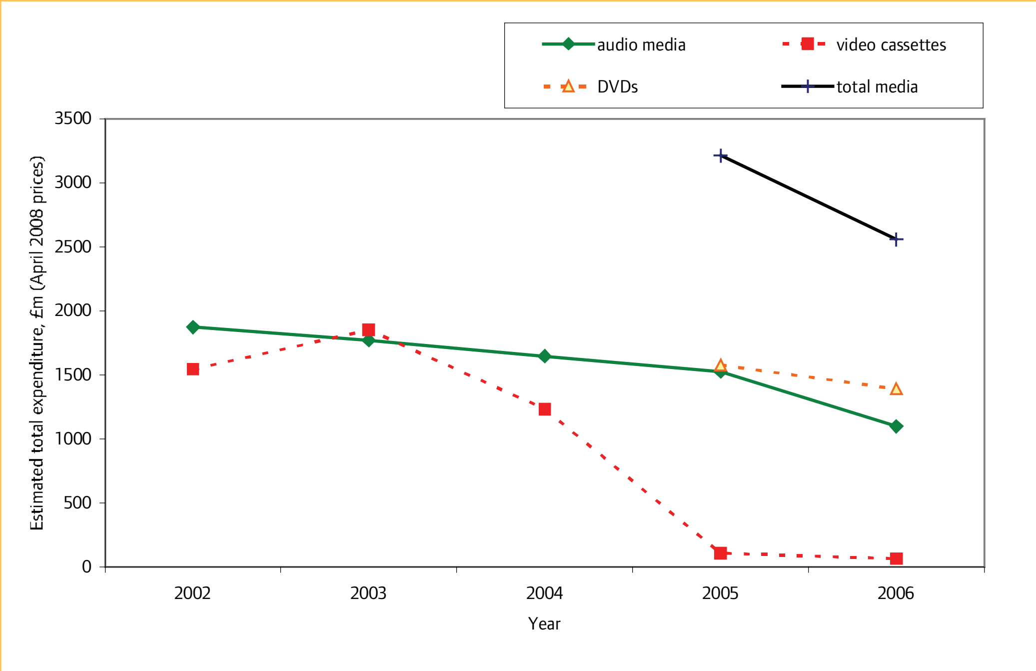


Figure 5.2 shows that expenditure on video cassettes fell from 2003, and by 2005 had reached negligible levels. Expenditure on audio media and on DVD media has fallen more slowly (data for DVD media are available from the EFS only after 2004). Totalling expenditure across all three media types for 2005 and 2006 suggests that overall expenditure reduced from around £3.2 billion in 2005 to £2.6 billion in 2006. Because of the expansion in the market for audio and video storage, and recording devices that use solid-state media (such as iPods and similar MP3 devices, hard-disk video recorders, and systems based around computers), it is likely that the market for blank media of the types shown in Figure 5.2 will shrink further in future years.

A 1 per cent levy on sales of all media covered in the EFS (both blank and pre-recorded) would have raised around £26 million in 2006 (in April 2008 prices). However, this is an overestimate of the potential revenue from a levy on blank media, as the EFS figures include both blank and pre-recorded media. Moreover, it is likely that sales of blank media will fall in future years, reducing the yield from a levy still further.

Computer equipment

Given that personal computers (whether laptop or desktop) are being used more and more for downloading and viewing broadcast media content nowadays, we now look at figures from the EFS for expenditure on computers and computer components over the last few years. This data is shown in Figure 5.3, below.

Figure 5.3: Estimated aggregate expenditure on computer equipment, UK, 2002–06

Source: Expenditure and Food Survey

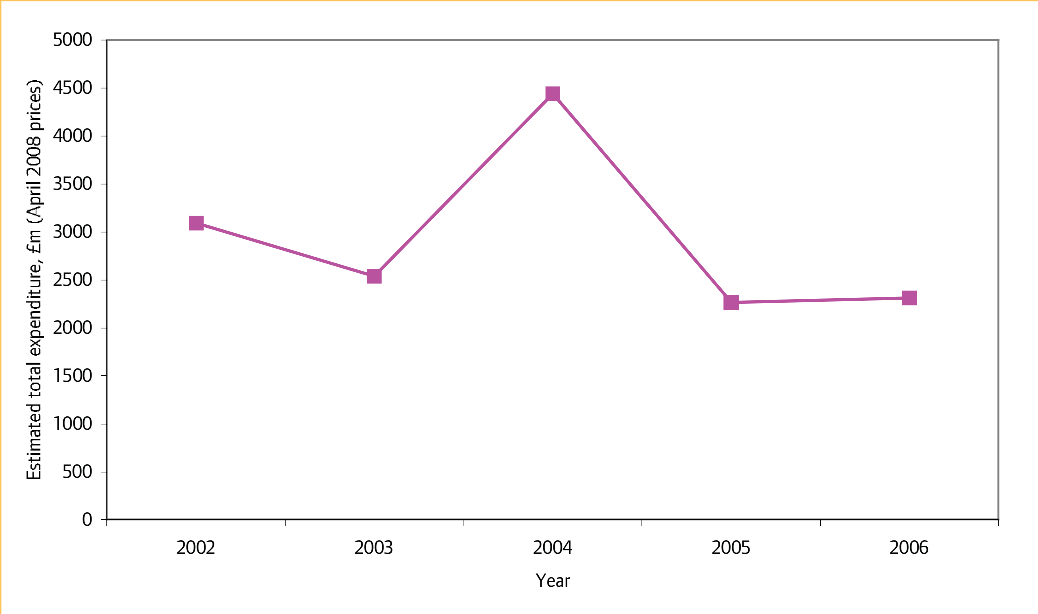


Figure 5.3 shows that in 2005 and 2006, expenditure on computers and computer components and peripherals in the UK was around £2.3 billion in current prices. A 1 per cent levy on computer products would raise around £23 million. One advantage of a levy on computers is that, with the increasing importance of digital downloads as a vehicle for the delivery of broadcast media content, spending on PCs and other computers is likely to stay high in real terms in the years forward to 2013, compared with some other categories of expenditure examined here, which are more likely to fall. However, not everybody who owns a computer will use it for viewing broadcast video or listening to broadcast audio, so in this sense it could be argued that a computer levy would target the wrong consumers to a large extent.

While blank media taxes have proved successful, revenues are in decline along with sales of relevant equipment. Also, such levies have typically been reserved for compensating rights holders, and it is unlikely that a system would be introduced without serving this same particular purpose. This is especially the case given the level of concern regarding the impact of piracy on the UK's wider creative industries (particularly the music industry).

Nonetheless, considering the case of the copyright industries, there are signs that the Government is somewhat sympathetic to the idea of contributions to the cost of dealing with piracy from those industries that – many have argued – indirectly enable or benefit from it (namely, internet service providers selling broadband subscriptions that enable downloads of illegal content). The interim report of the Digital Britain review has committed to exploring the possibility for distributors and rights holders to fund a new approach to civil enforcement of copyright 'to facilitate and co-ordinate an industry response to this challenge' (BERR 2009). Thus the idea of industry-wide (and industry-funded) solutions to problems that threaten the continued well-being of the UK's creative industries, whether music, film or PSB, should not be out of the question.

While a blank media levy is unlikely to deliver continued funding into the future, and if introduced would most likely to be hypothecated for compensating rights holders, it provides an illustration of a scheme that has existed for some time in many other countries. It also introduces the principle of industry contributing collectively to address a market failure.

Retransmission levies

The retransmission of audiovisual works is governed by the Bern Convention, the European Directive 93/83/EEC and national copyright law. Any entity that retransmits a protected work in the context of its economic activity must obtain the rights holder's authorisation to do so. The EU Directive and national laws add that a rights holder must call upon a collecting society's services instead of exercising his or her rights individually through retransmission operators (although in the UK, such laws do not apply). Across Europe, the system is organised by AGICOA, which collected €99.3 million in retransmission levies in 2007.

Retransmission levies are used in 30 European countries, and apply to cable and satellite platforms that broadcast copyright material for which no direct fee is paid to the original content provider. A UK equivalent would be Sky or Virgin Media, which broadcast material created by the BBC, Channel 4 or ITV but do not pay for the content. According to the latest available data, Sky has 9.07 million subscribers (Sky 2008) and Virgin 3.57 million (Virgin Media 2008). Based on these figures, an annual £5 flat-rate levy per subscriber would raise around £45 million from Sky and around £18 million from Virgin – a total of £63 million.

Table 5.1: Income secured from retransmission levies worldwide, in Euros

The Netherlands	25,480,546	Slovenia	437,005
Germany	15,887,794	Slovakia	217,933
Belgium	14,122,751	Iceland	102,211
Ireland	6,191,116	Serbia	99,062
Poland	5,361,796	Bulgaria	95,687
Denmark	3,756,875	Lithuania	94,946
Spain	3,000,000	Estonia	83,369
Switzerland	2,690,460	Latvia	60,104
Sweden	1,927,641	Bosnia	50,894
Romania	1,618,287	Macedonia	35,916
Portugal	1,138,012	Albania	15,750
Special 'authors' share'	961,091	South Africa	15,000
Austria	716,370	Canada	11,500
Hungary	682,662	Ukraine	7,981
Luxembourg	533,079		

It is worth noting in this context that subscription income has exceeded television advertising income for the past five years, and that the gap between the two revenues continues to grow. In 2007, subscription revenue grew by 6.4 per cent, to £4.3 billion. Meanwhile, TV advertiser revenue rose 2.2 per cent to £3.5 billion over 2007 following an equivalent decline in 2006 (Ofcom 2008b). While subscription services and pay TV may seem to benefit from the digital switchover, commercial free-to-air PSB providers are suffering.

Direct media levies

Direct media levies are charged on revenue from organisations such as broadcasters, cinemas or video labels. This model is in place in France, where CNC (Centre National de la Cinématographie, broadly equivalent to our UK Film Council) is financed through levies of this kind. The system provides CNC with around €500 million a year to fund the production of French-language film.

A levy system such as this in the UK would work on the same justification of the retransmission levy system, but would be a tax on revenue rather than subscribers. The tax could apply to pay-TV revenues, for example.

Table 5.2 demonstrates the broadcaster revenue from a 1 per cent levy on pay TV in the UK, based on assessments from the UK's two major pay TV broadcasters.

Table 5.2: Estimated yield from levies on broadcaster revenue

Broadcaster	2007 revenue (£m)	Estimated yield from 1% levy (£m)
Satellite/cable:		
BSkyB	4,551	45
Virgin Media (consumer cable division)	2,486	25
Total	7,037	70

Country case study 1: Public service broadcasting in Canada

Canada provides one example of a country that uses industry levies to fund public service broadcasting.

The Canadian Broadcasting Corporation (CBC) / Radio Canada is Canada's national public service broadcaster. It offers 29 services on radio, television and the internet. CBC has a specific remit set out under the 1991 Broadcasting Act, and a particular emphasis on broadcasting services containing content that is distinctively Canadian. CBC is funded through a combination of direct government funding, licence fee and advertising.

Public service broadcasting is also provided by the Aboriginal People's Television Network (APTN) and the Cable Public Affairs Channel (CPAC), alongside educational content broadcast by Canadian provincial broadcasters such as TV Ontario. Funding for these additional broadcasters comes from a variety of mechanisms, including industry levies. CPAC is funded by what is in effect a voluntary industry levy: coverage of the Canadian parliament is carried by cable operators in Canada, but receives no government funding.

In 1996, Canada established the Canadian Television Fund (CTF). This is a public–private partnership between satellite services, cable companies and the Government of Canada focused towards creating 'high quality, distinctive programming for television.' In essence, the CTF serves to ensure that each element of the Canadian broadcasting system 'contribute[s] in an appropriate manner to the creation and presentation of Canadian programming' (Canadian Broadcasting Act 1991).

The CTF receives its funding from two primary sources: the Department of Canadian Heritage, and broadcasting distribution undertakings. In addition, the CTF receives revenue from recoupment on production investments made through its Equity Investment Program. Under licence agreements with the Canadian Radio-television and Telecommunications Commission, broadcasting distribution undertakings are required to contribute up to 5 per cent of their gross broadcasting revenue to Canadian programming, with 1.5–5 per cent to be contributed to production funds, of which at least 80 per cent must be directed to the CTF.

In 2007/08, CTF production funding contributions totalled CA$242 million. Contributions were made to 466 television productions amounting to more than 2,200 hours of original content (CTF 2008). Over its 12-year history, the CTF has contributed $2.7 billion to support over 5,400 productions. This has resulted in the creation of more than 27,000 hours of high-quality television for Canadians, and has triggered more than $9 billion in production volume across the country.

New media levies

A similar system to direct media levies could be applied to UK new media – for example, by applying a tax to internet service providers and mobile phone operators, so that an additional levy is paid alongside monthly subscription or as a percentage of revenue. Such levies are not in wide operation across the world, largely due to the relatively new nature of such technologies and the policy across nations of encouraging take-up, particularly of broadband.

However, as digital media moves into maturity, this option may be reviewed more closely. For example, in France, President Sarkozy has announced the removal of advertising from public television channels. The revenue previously raised through advertising revenue is to be replaced by taxes collected from internet, mobile phone and commercial broadcasting companies. Sarkozy's proposals are that the levy on the revenues of telephone and Internet operators would be '0.9 per cent, and 3 per cent for private channels'. The levy is expected to make up the shortfall of €800 million once advertising is phased out.

New media levies could either take the form of per-subscriber levies, that is, a surcharge paid per paying user of the service, or of a percentage tax on annual revenue. We set out income generated based on three different examples: per-subscriber levies on broadband internet provision, per-subscriber levies on subscriptions to mobile phones with internet capabilities, and levies on annual revenue of mobile phone providers.

Per-subscriber levies on broadband internet provision

Figures from the Office for National Statistics (ONS) for August 2008 suggest that around 14.2 million households now have broadband access in their homes (ONS 2008a). Based on these figures, an annual flat-rate levy of £5 per subscriber would raise £71 million.

Country case study 2: Public service broadcasting in Finland

Finland's state-owned broadcaster Yleisradio Oy (YLE) has a broad public service remit, with a strong emphasis on news, educational and cultural output. In form, YLE loosely resembles the BBC, operating five main national television channels. Two are both analogue and digital free-to-air, while the other three are digital-only free-to-air. It also operates seven main analogue stations that broadcast a wide range of public service content.

Additional public service content is broadcast by nine other commercial radio broadcasters. These have specific remits to cater for classical music, jazz music, youth music, Finnish popular music, religious programming, Russian language programming, and Lapland tourism.

Funding for public service broadcasting is drawn from two main sources: a direct licence fee paid for by citizens, which contributes the largest share, and an industry levy paid by commercial broadcasters in Finland. Under the latter, broadcasters are obliged to pay a progressive proportion of their revenue from broadcasting operations (advertising and sponsorship).

Following legislation in 2002, the industry levy is due to be phased out by 2010, with an expectation that commercial operators pay for the introduction of digital infrastructure. However, it provides an interesting example of a progressive industry levy, with the scale of fees as follows:

Broadcaster turnover (in €1,000)	Licence fee at lower limit (in €1,000)	Licence fee over limit % levy
3,400–5,000	0	5
5,000–6,700	84	7.5
6,700–10,100	210	10
10,100+	547	12.25

Per-subscriber levies on mobile phone internet usage

The 2008 report *Mobile Life*, produced by Carphone Warehouse and researched by the London School of Economics, suggested that around 15 per cent of mobile phone users had used their phone to watch TV or download music or video clips from the internet. Given that around 95 per cent of people in the UK (including children) own a mobile phone, and that the current population of the UK is around 61 million (ONS 2008b), an annual levy of £5 on mobile phones that are used to access music, video or television would raise around £43 million per year. However, as use of mobile phones to access the internet is increasing rapidly, the potential yield from a measure like this is likely to rise sharply over the next few years.

Levies on revenue of mobile phone providers

In the UK, a 1 per cent levy on UK mobile operators would yield the amounts shown in Table 5.3.

Clearly, levies have the potential to introduce fairly extra funds into a system that is struggling but valued by UK citizens, and that itself contributes to the economic success of the wider media ecosystem. While at first glance this option may not appear politically attractive, the UK would not be breaking new ground: levies exist in other countries across the world, and are an established mechanism for funding content and media services.

Table 5.3: Estimated yield on levy from mobile phone operator revenues

Mobile phone operator	2007 revenue (£m)	Estimated yield from 1% levy (£m)
02	£5,500	£55
Orange	£4,919	£49
T-Mobile	£3,575	£36
3	£1,591	£16
Vodafone	£5,124	£51
Total		£208

Note: the column '2007 revenue' shows annual revenue converted from Euro to sterling using the exchange rate in January 2008 of €0.743 to £1

Data sources: *02* – www.o2.com/investor/press_release_14157.asp
Orange – www.orange.com/en_EN/group/global_footprint/countries/uk/uk-fi.html
T-mobile – www.annualreport2007.telekom.de/gb07/backstage_04/documentpool/en/en.pdf
3 – www.irasia.com/listco/hk/hutchison/announcement/a25330-e_2007hwlresultsann.pdf
Vodafone – www.vodafone.com/etc/medialib/attachments/agm_2008.Par.77336.File.dat/2008_Annual _Report_FINAL.pdf

Analysis: plugging the PSB funding gap using levies

Table 5.4, below, brings together the different funding mechanisms discussed here. This has been done by taking the £235 million PSB funding gap predicted by Ofcom as emerging between the introduction of the Communications Act in 2003 and digital switchover in 2012, and then working out what rate would be needed to plug the funding gap completely using each kind of levy. If the Government chose to follow this course of action, a combination of levies could be used.

Some caution should be exercised in interpreting these results, as we have used data from the most recent available estimates of expenditure, revenue, number of subscribers and so on, and have not attempted forward extrapolation. This is particularly important in the case of the projected yield from a levy on audio or video media (which is likely to fall significantly by 2013, necessitating a higher percentage levy rate) and the yield from an annual levy on internet-enabled mobile phones (likely to increase sharply by 2013, which would mean the same revenue could be raised with a lower levy per subscriber).

Additionally, we have not allowed for any behavioural effects from the introduction of these levies. For example, if the increase in the price of audio or video recording equipment (as the result of introducing a levy) led to a measurable decline in the quantity of equipment sold, this would reduce the yield from the levy. However, we have few reliable estimates of the response of quantity to price – the 'elasticity', to use the economists' technical term – for these goods, so have chosen to assume no behavioural effects as a first approximation.

Table 5.4: Estimated level of levies to bridge funding gap

Type of levy	% or levy per subscriber required to raise £235 million
Levy on audio/video recording equipment (under widest definition)	14.7%
Levy on audio/video media (all types)	9%
Annual retransmission levy on Sky/Virgin subscribers	£19 per subscriber
Direct media levy on satellite and cable broadcasters	3.4%
Direct media levy on mobile phone networks	1.1%
Annual levy on broadband ISP subscriptions	£16.50 per subscriber
Annual levy on mobile phone contracts with internet usage	£27 per subscriber

Conclusion

Levies continue to present a possible solution to bridging the funding gap in order to maintain current levels of PSB. There are inherent political difficulties: an additional tax is unlikely to be received enthusiastically by those industries to which it applies. However, in exploring this option the UK would hardly be breaking new ground: levies exist in other countries across the world, and are an established mechanism for funding content and media services.

As noted above, the figures presented in this section are intended to be illustrative. Different rates could be applied, and levies could exist alongside other mechanisms for securing extra funding for PSB to secure its future over the long term. As internet advertising revenues increase, taxes applied to this may provide a source of extra revenue. However, in the medium term, the trend appears to be towards income generation by subscription services.

In the next section we look at the value that regulatory assets will continue to provide, and how these could be exploited to maximise their value to PSB providers.

6. The value of regulatory assets

As mentioned previously, PSB providers have historically been part funded by 'regulatory assets', that is, gifted analogue spectrum. While this will decline in value with digital switchover, some value will remain in the system. Maximising this value is an obvious and non-controversial solution (or part solution) to the funding crisis facing commercial PSB providers.

Regulatory assets are commonly divided into two categories:

- Privileged access to Digital Terrestrial Television (DTV) spectrum
- Other assets, such as prominence on electronic programme guides (EPGs) (for instance Sky's on-screen television guide which lists terrestrial PSB providers – BBC1 and 2, ITV, Channel 4 and Five as numbers 1, 2 , 3, 4 and 5 respectively), relaxed advertising minutage rules allowing for longer or more frequent advertising breaks during television programmes and must-carry status on cable, meaning that cable providers must continue to deliver PSB channels to subscribers.

Ofcom has estimated that regulatory assets will have a value of around £185 million in 2012/13. Beyond this timeframe, it is hesitant to make further estimates because of uncertainty around the wider media environment.

Under Model 3 described on p23 above (in which the BBC and Channel 4 act as the main providers of PSB, with funding available for other providers), the spectrum rights and other regulatory assets currently shared across BBC, Channel 4, ITV and Five would be transferred to BBC and Channel 4 to enhance their public service propositions. However, given that ITV and Five are likely to retain some public service obligations, a straight transferral of assets is unlikely. Instead, we consider where regulatory assets have potential to enhance public service models in other ways.

In addition to retained regulatory assets, there is also the potential of transferring support from released regulatory assets – particularly those currently at the centre of the digital dividend review.

Digital Terrestrial Television (DTT) spectrum

While the digital switchover means that the value of access to broadcast spectrum is in decline, it is anticipated that privileged access to DTT will retain some value for PSB providers. Ofcom estimates that the value of gifted spectrum allocated to the commercial PSB providers (primarily ITV plc, stv, UTV, Channel 4 and Five) will be around £120 million in 2012/13 (Ofcom 2008). This value is retained in part by the fact that the DTT multiplex capacity allocated to commercial PSB providers will reach 98.5 per cent of the UK population at the time of the digital switchover, compared to 90 per cent for commercial DTT multiplexes.

It is difficult to confidently and absolutely assess the value of spectrum post-switchover. However, there are a number of policy initiatives that could have some impact on the value for PSB providers, and for citizens in the UK.

Alongside its PSB review, Ofcom has been conducting the Digital Dividend Review in order to decide how released spectrum should be allocated once digital switchover has occurred (Ofcom 2006). Indications are that Ofcom intends to follow a process of market auctions as the most efficient way to determine spectrum use.

However, the BBC and others have called for at least one third of the released spectrum to be reserved, so that PSB providers can develop free-to-air Higher Definition (HD) services. They have argued that there will not be enough capacity on the six existing multiplexes, even after switchover, to carry the critical mass of HD services without removing existing services – and there is no business model for free-to-air HD on the DTT platform.

Without this, the value of the Freeview digital platform is likely to decrease. BBC research estimates that the social value lost through the unavailability of HD services on DTT could range from £5.4 billion to £15.6 billion (BBC 2007).

There has also been discussion about the possibility of transferring a proportion of income received if the spectrum released upon digital switchover were auctioned. This option has a certain neatness to it, as it ultimately involves supporting PSB by transferring income gained from releasing assets previously used to uphold PSB provision. Certainly, the released spectrum is likely to be immensely valuable to a number of industries and services – not least, mobile broadband. Income from spectrum auctions (for instance, the 3G auction) has typically been received by the Treasury. Nonetheless, it is technically and politically possible to hypothecate some portion toward future funding of PSB. This would also represent a one-off 'windfall' payment, which – while welcome – may not do much for securing the long-term future of PSB.

Alongside this, there has been ongoing debate about the proposed administered incentive pricing (AIP) scheme. AIP is currently applied to spectrum used by business radio, public wireless networks, scanning telemetry, point-to-point fixed links, satellite services, the Ministry of Defence and emergency services – but not to broadcasting. There are significant concerns about the proposal of the introduction of AIP to broadcasting, and about the associated demise of gifted spectrum, offered as an incentive for continued PSB output. Responses to Phase 1 of Ofcom's *PSB Review 2* (Ofcom 2008a) showed support for waiving costs of accessing spectrum under AIP. Without such a waiver, this option is likely to put further financial pressure on PSB providers at a time when they are already facing significant challenges.

The jury is still out on the value of regulatory assets – particularly because it is difficult to judge the market value of spectrum post-switchover. Ultimately, regulatory assets are unlikely to be considered a solution by themselves: they are more likely to be offered in addition to other options.

While the true value of regulatory assets remains uncertain, it is imperative that consultations that have an impact on the future financial stability of UK PSB providers do not operate independently of the ongoing reviews, and that the impact on PSB providers of any regulatory decisions is fully considered, and set out as a PSB impact assessment.

Other assets

Ofcom has estimated the value of EPG prominence to be somewhere in the region of £30 million. However, as with other regulatory assets, this figure is difficult to calculate. What precisely constitutes 'due prominence' is defined by the provider of the EPG, and many audiences seek out content regardless of its place in the EPG. It is in providers' interests to make the EPG as navigable as possible – Sky's EPG system is seen as a valuable asset for the provider in helping Sky customers easily negotiate the wealth of content available via their systems.

In contrast, must-carry obligations are thought to have negligible value, given that most cable and satellite providers will carry the commercial PSB providers in any case, due to their audience popularity. It is unlikely that customers would wish to sign up to a service that did not offer ITV, Channel 4 and Five, for example.

Finally, we turn to the question of whether to enable commercial PSB providers to increase their advertising screen time. This option, raised in a consultation document from Ofcom published in March 2008, is seen as neither popular nor as a sustainable long-term solution (Ofcom 2008f). The problems of advertising-funded media are already being starkly felt in the midst of the credit crisis, even among platforms that do not have rules to meet (for instance, newspapers publishing and online advertising) in terms of quotas of adverts struggling to raise significant revenue. Adding extra capacity may serve simply to reduce the overall cost of advertising in broadcast environments, just as internet advertising is comparatively significantly cheaper.

The ability to offer more advertising slots will do little to counter the competition emerging from the online sector – particularly given its potential to offer more targeted advertising to users and to be instantly scaled up in several areas (although, as previously acknowledged, introducing further advertising minutage for online television viewing is problematic).

Current analysis indicates that advertising space is increasing at such a rate that the cost of advertising, particularly online, is coming down. Therefore it is unlikely that increased levels of advertising will be able to hold off this competition – nor that the revenue expected would necessarily be gained.

Conclusion

As Ofcom acknowledges, regulatory assets will continue to have value post-switchover, although providing estimates beyond this point is extremely problematic.

There is strong support for continued use of regulatory assets to provide financial assistance for PSB. The introduction of administered incentive pricing at a time when PSB providers are facing significant financial struggles would seem counter-intuitive, only providing extra pressure where it is currently least needed.

The possibility of enabling increased revenue to be generated through advertising should be treated cautiously. The shifts in advertising income are structural, significant and likely to be long term. Put simply, the internet offers opportunities – in terms of sophistication and scale – that broadcast content simply cannot match. Even when providing content online, PSB providers are unlikely to be able to reap an advantage from online advertising, given the lack of enthusiasm for advertisements during online television viewing.

Ultimately, it is likely that regulatory assets will continue to play a crucial role in supporting PSB for the foreseeable future. It is imperative that associated work, particularly around the digital dividend review, does not threaten this potential. However, further subsidies will be required – so, again, government and Parliament must turn to consider where additional funding may be found to support the level of PSB that UK citizens want.

7. Conclusion

Despite the many changes to the UK media landscape, public service broadcasting continues to play a valuable part in UK life – both for our citizens' well-being and to the national economy.

Digital switchover and the ongoing process of technological change have put significant financial pressure on the UK's PSB broadcasters and these pressures are likely to grow over the next few years.

As the traditional model of funding PSB is under threat, the key challenge facing policymakers and those concerned with ensuring the future health of PSB is finding new ways to fund public service activities.

We have illustrated two possible solutions aimed at increasing income to PSB activities: industry levies and continuing to exploit the maximum value from regulatory assets. There may be others. However, it is clear that the immediate threats to PSB, and to the wider UK media landscape, are severe and likely to be long term. As a result, solutions will themselves need to be long term in nature, and may look vastly different from the funding mechanisms we have utilised previously. At first glance, levies may not appear politically popular, but there is a strong rationale for considering them as a serious option.

If we value our public service history and future, it is imperative that we take steps to protect and promote it. These may not always be universally supported, particularly by some industry sectors. However, at the heart of this debate is the desire to ensure a future media offering that is to the benefit of all citizens and society. With such high stakes, it is perhaps unsurprising that solutions and decisions will need to be correspondingly bold.

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Appendix 1: the Expenditure and Food Survey (EFS) data

The EFS is an annual cross-sectional survey of around 7,000 UK households which collects data on each household's expenditure using diaries filled in over a two-week period. We used this information to estimate total annual expenditure by UK households on each category of audio or video equipment and media used in this report.

For the years 2002 to 2005 inclusive, the EFS was collected on a 'financial year' basis. This means that, for example, the year referred to as '2004' in this report actually runs from April 2004 to March 2005. In 2006 the EFS changed to a calendar year reporting basis. Hence, the '2005' and '2006' years in this report actually overlap by three months. However, when calculating the yield from the levies modelled in this report we use only the 2006 calendar year data.