



LBS Research Online

[TP Barwise](#)

Does Public Service Television Really Give Consumers Less Good Value For Money Than The Rest Of The Market
Book Section

This version is available in the LBS Research Online repository: <http://lbsresearch.london.edu/1395/>

[Barwise, TP](#)

(2018)

Does Public Service Television Really Give Consumers Less Good Value For Money Than The Rest Of The Market.

In: A Future for Public Service Television.

Goldsmiths Press, London, pp. 52-64. ISBN 9781906897710

DOI: <https://doi.org/10.35065/PUB.00001395>

Goldsmiths Press

<https://www.gold.ac.uk/goldsmiths-press/publicatio...>

Users may download and/or print one copy of any article(s) in LBS Research Online for purposes of research and/or private study. Further distribution of the material, or use for any commercial gain, is not permitted.

5

Does Public Service Television Really Give Consumers Less Good Value for Money than the Rest of the Market?

Patrick Barwise

Why do we still have public service television (PST) when commercial broadcasters and online TV companies now offer consumers so much choice? The obvious answer is that people are citizens as well as consumers: for policy reasons, we want to ensure the availability of public service programmes that offer social, cultural and political benefits and economic externalities but are not commercially viable. Despite disagreements about scope, scale, governance and funding, the idea that there should be *some* PST for 'citizenship' reasons is not seriously disputed in most countries, the USA being perhaps the main exception.

Among some commentators, however, this 'market failure' argument – the market's under-provision of some kinds of programme – is now the only continuing justification for PST. In the words of British economist Helen Weeds, '[t]he rationale for public intervention in broadcasting must now rest on citizen concerns.'¹ Many others would broadly agree.²

The Conservative government's position also seems to reflect this view. A 2016 White Paper argues that '[t]he BBC has faced questions in recent years, including about ... its distinctiveness, the market impact of its more mainstream services ... and its efficiency and value for money... [It should] focus its creative energy on high quality distinctive content that differentiates it from the rest of the market'³ The White Paper frames broadcasting policy as a kind of balancing act between citizen and consumer interests: for citizenship reasons, we need some PST to address gaps in provision; but for consumer reasons, we should minimise its cost and market impact.

One practical problem with this view is that it assumes a clear-cut distinction between popular/commercial and minority/non-commercial programmes. The reality is much fuzzier and less predictable: what could be more ‘minority interest’ than a baking competition? Yet *The Great British Bake Off* turned out to be a huge hit.

At a deeper level, the key assumption underpinning the ‘market failure’ argument is that, whatever its citizenship value, PST offers less good *consumer value for money* (VFM) than the rest of the market. This chapter explores this assumption in the UK context. The main analysis completely ignores the citizenship benefits of PST, treating it as if it were just a consumer product like baked beans. At the end of the chapter, I briefly return to the citizenship issues and discuss the policy implications.

The UK Market Context

I here define a public service broadcaster (PSB) as a broadcaster governed, managed and regulated to achieve a different or broader set of public interest goals than maximising shareholder value. This is not a black-and-white concept. For instance, all UK broadcasters, apart from online-only TV services such as Netflix, operate under – and almost always comply with – the Ofcom Broadcasting Code, designed to protect children, avoid undue harm and offence, ensure accurate, impartial news, and so on.⁴ As well as the BBC – publicly owned and largely funded by compulsory licence fees – the UK’s diverse and highly competitive TV system includes two other sets of broadcasters:⁵

- Commercial PSBs: the publicly owned Channel 4 (C4) and privately owned ITV and Channel 5 (C5), all mainly funded by advertising⁶
- Non-PSBs: a combination of platforms, channels and online-only services, mainly funded by subscriptions and advertising.

The BBC and C4 are ‘pure’ PSBs with detailed public service remits; ITV and C5 are also defined as PSBs because they have agreed to deliver some public service objectives (in addition to those in the Ofcom Broadcasting Code) in exchange for privileges such as access to spectrum at a lower price than they would have to pay in a competitive auction.

Method

This chapter is about the relative consumer value for money of PST (BBC TV and the commercial PSBs) and the non-PSBs. Consumer VFM is a familiar concept in

marketing and consumer policy, usually measured by simply asking consumers, who typically have no difficulty interpreting the question and relating their responses to their own buying behaviour, perhaps with some post-rationalisation. In thinking about the different brands, they know that they are broadly comparing like with like or, at most, trading off price and quality within a category, for example when comparing a premium brand with an economy brand.

Evaluating the consumer VFM of television is less straightforward because it is rarely bought one programme, or even one channel, at a time; much of its funding comes from advertising; and different broadcasters have quite different revenue models:

- BBC TV is mainly funded by a compulsory licence fee which also funds BBC Radio, BBC Online, the BBC World Service, and much of the cost of broadband rollout, the Welsh public service channel S4C and local TV. Also, all households with one or more members aged over 75 get a free TV licence (regardless of household size and income).
- The commercial PSBs are mainly funded by advertising.
- Pay TV is mainly funded by monthly subscriptions, supplemented by advertising, for a package of channels, increasingly bundled with apps, DVRs, catch-up services, telephony, broadband, etc.
- Online-only TV services are funded by a mixture of subscriptions, advertising and one-off payments (pay-per-view, rentals, download-to-own).

We can, however, infer a lot from a combination of consumer behaviour ('revealed preference'), consumer costs and selected attitudinal data. To illustrate, consider the overall consumer VFM of UK television.

The Overall Consumer VFM of UK Television

Consumers' revealed preference suggests that most see television as excellent VFM – so much so that almost every household chooses to have a TV set (95.5% of all households in late 2016⁷) and/or access to an online TV service (including an unknown proportion of the other 4.6%). At a minimum, the direct cost per household is the £12.25/month BBC licence fee⁸ and the cost of a TV set and electricity.

Watching TV is extremely cheap by any standards. Robert Picard and I estimated that, in 2012, the direct consumer cost per viewer-hour (CPVH) – subscriptions, the TV proportion of the BBC licence fee, and one-off payments – was

9.2p. Including the indirect cost of TV advertising (discussed later), it was still only 13.5p/hour. On a comparable basis, the cost per consumer-hour was roughly 50p for fixed and mobile telephony, tabloid newspapers, paperback books and 'free' advertising-funded online services (including the cost of broadband). For magazines, quality newspapers and DVDs it was significantly higher than that; for most out-of-home leisure activities (restaurants, pubs, cinemas, etc) much more again.⁹

Of course, these figures do not mean that these other activities represent poor VFM – the experiences are not closely comparable with everyday TV viewing. But the low cost of television clearly helps explain its huge and continuing popularity. Only radio listening worked out even cheaper, at only 1.9p per listener-hour.

Testing the 'Market Failure' Assumption

Using the same broad approach, we can start to test the 'market failure' assumption that UK PST – certainly the BBC and perhaps the commercial PSBs – offers less good consumer VFM than the rest of the market. We can observe consumers' revealed preference at two stages:

- Adoption: households deciding whether to pay for access to any TV; and, if so, whether also to subscribe to (basic or premium) pay TV
- Usage: individuals then deciding which programmes to watch.

These are very different. The first is an occasional household choice involving money. The second is a constant series of individual choices (albeit often negotiated with other household members) and rarely involves money. Both throw light on the 'market failure' assumption about the relative consumer value for money of PST and the non-PSBs.

On the first point, adoption, as already noted, almost all households choose to have access to TV content, including the small but growing minority who watch only online. The proportion of households with access to TV content who, over any extended period, watch no PST is unknown but certainly very small, skewed towards light-viewing, young, upscale online-only households without children.

Among the over 95% of UK households with TV sets able to receive broadcast TV, in late 2016:¹⁰

- 45.1% had no pay TV (including a majority of low-income households, who rely disproportionately on PST)

- 33.6% had basic pay TV costing £20–30/month on top of the £12/month BBC licence fee
- 21.3% had premium pay TV, i.e. sport and/or movie packages costing £20–40/month on top of the cost of basic pay TV and the BBC.

Because consumers legally have to have a TV licence in order to have pay TV, and a basic pay TV package if they want premium pay TV, these figures do not show their willingness to pay for each option separately. But they do show that, although over 95% of households regard TV as good VFM, a large minority of these (45% of TV households) do not regard even basic pay TV as cost-justified as an addition to PST; and only about 21% think premium pay TV offers good enough VFM to justify a subscription.

Turning to the second type of revealed preference, usage, viewers switch between their favourite channels at no additional cost and seamlessly – although nudged by their EPG¹¹ – with little or no distinction between PSB and non-PSB channels.

In 2016, BBC TV had a total viewing share of 32% among all UK individuals aged 4+ while the commercial PSBs (including their portfolio channels) had a combined share of 38% and the non-PSBs the remaining 30%. PST was therefore still extremely popular, accounting for 70% of viewing.¹² To assess its relative VFM, however, we also need to take account of, first, costs, i.e. the direct and indirect consumer cost per viewer-hour (CPVH) and, second, perceived quality.

The Cost per Viewer-Hour (CPVH)

We can estimate the CPVH of a specific (type of) broadcaster by dividing its direct and indirect cost to consumers by its viewing hours. We have good data on viewing hours but estimating the consumer cost involves two assumptions:

1. The consumer cost of BBC TV is the proportion of licence fee revenue allocated to it, including proportionate overheads
2. The indirect consumer cost (or opportunity cost) of TV advertising is equal to commercial broadcasters' net advertising revenue (NAR) – that is, the revenue they receive from media agencies.¹³

Using these assumptions, Robert Picard and I estimated the following CPVH figures in 2012: BBC TV 9.2p, commercial PSBs 8.0p, non-PSBs (excluding online-only

services) 24.9p.¹⁴ We can now update these estimates to 2016 – see Table 5.1. The first two columns show weekly revenue (£m/week) in 2012 and 2016. Column 3 then shows the ratio between these: 0.96 for BBC TV (a 4% reduction in nominal revenue resulting from the 2010 funding settlement), 1.10 for the commercial PSBs (a 10% increase, mainly reflecting the recovery in NAR) and 1.17 for the non-PSBs (mainly from higher revenue per subscriber).¹⁵ Columns 4–6 show the equivalent figures for viewing. Total viewing (scheduled programmes watched on TV sets, live or up to seven days after broadcast) decreased by 12%, from 28.1 to 24.7 hours/week.¹⁶ Most of this reflected reduced PST viewing, leading to ratios of 0.86, 0.85 and 0.96, respectively, for BBC TV, the commercial PSBs and the non-PSBs.

Table 5.1

Nominal Revenue and Viewing Hours per Week (Rounded): 2012 vs 2016.²¹

	Revenue (£m/week)			Viewing (Hours/week, all inds 4+)		
	2012	2016	2016/2012	2012	2016	2016/2012
BBC TV	52	48	0.96	9.3	8.0	0.86
Commercial PSBs	56	62	1.10	11.1	9.4	0.85
Non-PSBs	133	156	1.17	7.7	7.4	0.96
Total	240	265	1.10	28.1	24.7	0.88

Assuming changes in total consumer costs are proportional to those for broadcaster revenue, we can use these ratios to update the 2012 CPVH figures to 2015:

BBC TV	$9.2\text{p} \times (0.96/0.86) = 10.2\text{p}$
Commercial PSBs	$8.0\text{p} \times (1.10/0.85) = 10.4\text{p}$
Non-PSBs	$24.9\text{p} \times (1.17/0.96) = 30.3\text{p}$

These estimates are approximate (+/– 10%) because they are based on rounded revenue figures, but the qualitative picture is clear: as in 2012, the 2016 CPVH for the non-PSBs was almost three times as high as for the PSBs. The reasons are:

1. The high cost of sport (and, to a lesser extent, movie) rights for premium pay TV channels. The £1,712m annual cost of live TV rights for Premier League football (ie excluding production costs) is now marginally more than the *total* programme budget of BBC TV (£1,702m in 2015/16).¹⁷

2. The much higher non-programming costs of pay TV versus PST (marketing, distribution, consumer equipment, installation, customer service).
3. The non-PSBs' significantly lower availability. As already discussed, TV household penetration is only about 55% for pay TV and, within that, 21% for premium pay TV, versus 100% for PST.¹⁸
4. Finally, the market is highly competitive, forcing the PSBs to be much more efficient than they are sometimes portrayed.

The difference in total CPVH is probably somewhat less than this analysis suggests because it excludes the unknown opportunity cost of the PSBs' DTT (Digital Terrestrial Television) spectrum. However, even if we incorporated this, the general pattern – with the non-PSBs' CPVH being much higher than for the PSBs – would be unaffected, because of the above points.

Basic Multichannel, Premium Multichannel and Online-Only TV

Ideally, we would split the non-PSBs in Table 5.1 into two groups: (a) basic satellite, cable and DTT platforms and free-to-air non-PSB channels (accounting for over 95% of non-PSB viewing); and (b) the *additional* cost and viewing of premium sport and movie channels, since these are not sold separately from basic pay TV.

Because of the high cost of the premium channels' content – point 1 above – and their relatively low availability and viewing levels, their CPVH is much higher than that of basic multichannel pay TV. But basic pay TV still has much higher non-programming costs and lower availability than PST – points 2 and 3 – so its CPVH is almost certainly significantly higher than PST's.

Unfortunately, Robert Picard and I were unable to find any published data to enable us to separate the CPVH of the basic and premium non-PSBs and I am still unable to do so.

Similarly, I have been unable to find reliable published data on the consumer cost and viewing of the online-only TV services. But, to illustrate, a household paying Netflix's or Amazon's entry-level £5.99/month, with two adults each watching the service, on average, five hours/week, would equate to a direct CPVH of 13.8p.¹⁹ The total CPVH would be significantly higher if we include the indirect consumer cost of advertising and perhaps additional equipment and broadband costs as these video-on-demand services are extremely bandwidth-hungry.

Download-to-own box sets are slightly more expensive. For example the complete *Mad Men* costs £39.99 from Sky for 68 hours of content, which works out at

58.8p/hour. The CPVH depends on how many people watch it how many times but if, say, two people watched every episode once, on average, the CPVH would be 29.4p.²⁰ For pay-per-view sport and movies, the CPVH is likely to be significantly higher again.

In summary, although we lack the data to make precise estimates, the evidence is that, far from PST being more expensive than the rest of TV, it is almost certainly significantly cheaper per viewer-hour than basic non-PSB multichannel TV, entry-level online-only TV or online box sets, and very much cheaper than premium services such as sport and movie pay TV channels and online pay-per-view.

Perceived Quality: Audience Appreciation

The cost per viewer-hour is only part of VFM, however. The other is perceived quality, typically measured as audience appreciation. Until the mid-1980s, with only four public service UK channels, audience appreciation was routinely measured using self-completion diaries that asked respondents to say how ‘interesting and/or enjoyable’ they found each programme they watched. The results were reported as a 0-to-100 Appreciation Index (AI) for each programme. Most AIs were between 60 and 80. Among the general run of entertainment programmes, there was no evidence of ‘niche’ programmes attracting small but especially loyal and appreciative audiences. Instead, there was a ‘double jeopardy’ pattern under which, for a given channel and time of day, lower-rating programmes tended to have lower repeat-viewing rates and audience appreciation than more popular ones. A secondary pattern was that, other things being equal, more demanding programmes tended to have smaller audiences but higher AIs because only viewers who liked them a lot were willing to invest the extra effort needed to watch them.²²

As far as I know, there has been no published research comparing the average audience appreciation of PSB and non-PSB programmes. But, based on the earlier studies, I would be surprised if AIs were significantly higher, on average, for programmes on the basic multichannels than on the PSB channels. There are two reasons why they might be *slightly* higher, however. First, their viewers are people who have invested in pay TV, presumably because, other things being equal, they like television more, on average, than do those who do not subscribe to pay TV. Second, as with demanding programmes on the PSBs, viewers will typically make the extra effort of switching to a small multichannel only if they expect to like the programme more than those showing on the main channels. Typically, this will happen when the multichannel is showing a predictably enjoyable favourite programme.

The appreciation of premium sport and movie channels and online pay-per-view (among those who choose to pay for them) may well be much higher than for either the PSBs or the basic non-PSB channels in order to justify their much higher CPVH. For entry-level online-only TV, I have no solid basis on which to hypothesise.

The Relative Consumer VFM of PST

Based on the above analysis of adoption, usage, CPVH and audience appreciation, both BBC TV and the commercial PSBs most likely offer most consumers *better* VFM than the basic non-PSB channels (including platform costs) that account for the great majority of non-PSB viewing – the exact opposite of the assumption underlying the ‘market failure’ view. This provisional conclusion is based on the likelihood that, relative to the PSBs, the basic non-PSB channels’ significantly higher CPVH (even after allowing for the opportunity cost of the PSBs’ access to spectrum) is not compensated for by commensurately higher audience appreciation. This tentative conclusion is researchable. The relative consumer VFM of premium sport and movie channels, online pay-per-view and entry-level online-only TV is unclear: their much higher CPVH may or may not be fully compensated for by higher audience appreciation among those who subscribe to them. However, this too is researchable.

What about the significant minority of consumers who have always said, in response to surveys, that the compulsory BBC licence fee represents poor VFM?²³ A 2015 study²⁴ focused on this minority: the sample included 24 households saying they would prefer to pay nothing and receive no BBC services (representing 12% of UK households) and a further 24 households saying they would prefer to pay less for a reduced BBC service (representing 16% of UK households). The total sample of 48 therefore represented the 28% of households who, at least to some extent, saw the licence fee as poor VFM. These households then lived with no BBC services for nine days, after which they were re-interviewed and given £3.60 (nine times the 40p/day cost of the licence fee). Over two-thirds (33 out of the 48) changed their minds, deciding that the licence fee did, after all, represent good VFM. In contrast, only one out of a control sample of 22 households who, in the initial interview, had said the BBC represented good VFM went the other way, saying in the second interview that they now felt it represented poor VFM.

This study was based on limited samples but, if it generalises, the proportion saying the licence fee is good VFM increases from 72% in the initial survey to 88%²⁵ once respondents experience life without the BBC for just over a week. There has been no

equivalent study for other broadcasters but the results are certainly consistent with the above evidence that PST represents good VFM for UK consumers.

'Citizenship' Benefits

Of course, PST also offers citizenship benefits beyond those provided by the rest of the market. This chapter is about consumer VFM so I will discuss these only briefly. Ofcom's *PSB Annual Research Report 2017* found that, in 2016, most of the UK public valued the ten defined PSB purposes and five PSB characteristics highly – and increasingly over the five years 2011–2016. The highest importance ratings were for providing 'high-quality UK-made programmes for children' (89% among those with children) and 'trustworthy news' (89% among all UK adults). The lowest, at 68%, was for distinctiveness ('The style of programme is different to what I'd expect to see on other channels'). A majority also said the PSBs were delivering on all these purposes and characteristics, ranging from 87% for high-quality UK children's programmes down to 61% for 'distinctiveness'.²⁶

In summary, the UK public values the 'citizenship' purposes and characteristics of PST; does so increasingly; and believes that the PSBs are doing a good job delivering them. The characteristic on which they are least convinced on both importance and delivery is 'distinctiveness'. As I have written elsewhere in a more general context, consumers see no value in a product being distinctive as an end in itself. Instead, they value products that are distinctive because they are 'simply better'.²⁷ In line with this, a recent study for the BBC, unpublished at the time of writing, confirms that audiences mainly interpret 'distinctive' as 'distinctively good'. Unfortunately, the government's White Paper appears to use 'distinctive' in the quite different sense of 'distinctively different'.

Policy Implications

The above analysis shows that the key assumption underpinning the 'market failure' view – that PST offers consumers less good value for money than the rest of the market, so that its only continuing rationale rests on citizen concerns – appears to be simply wrong, at least in the UK. PST does, of course, give citizens public service benefits over and above those provided by the non-PSBs and online-only TV players, and these 'citizenship' benefits are highly valued by the public. But the numbers suggest that PST *also* offers consumers better value for money because the non-PSBs'

significantly higher cost per viewer-hour seems unlikely to be compensated for by commensurately higher audience appreciation.²⁸

The main policy implication is simple: there is no necessary trade-off between citizen and consumer benefits: pound for pound, PST appears to deliver both sets of benefits better than the rest of the market. This does not mean we should return to a world with only PST: the addition of non-PSB platforms and channels (now including the online-only services) to what has so far been a strong, well-funded PST system has hugely increased viewer choice and competition. It does, however, mean that the relentless current reduction in the BBC's real income, in particular, is now unambiguously against the public interest from both a citizenship *and* a consumer perspective.

In 2014, Robert Picard and I showed what would happen if this reduction were continued until the BBC were reduced to nothing or a minor sideshow like PBS in America – the logical conclusion of the 'market failure' view. Even, optimistically, assuming commercial broadcasters significantly increased their investment in content, including first-run UK content, in response to the BBC's removal from the market, we showed that the net impact would still be to reduce the range, quality and VFM of television for most households, as well as the income of UK producers and, of course, the citizenship benefits of PST.²⁹ Since then, the cuts in BBC income have, if anything, accelerated.

The assumption that PST offers consumers less good VFM than the rest of the market is the cornerstone of the 'market failure' view: without it, the argument for further reducing the role of PST simply collapses. From a rational policy perspective, the onus should therefore be on those advocating this view to provide evidence that – contrary to the analysis here – this key assumption is correct, i.e. that PST does offer less good VFM than the rest of the market.

Notes

- 1 Helen Weeds, 'Digitisation, Programme Quality and Public Service Broadcasting', in *Is There Still a Place for Public Service Television?: Effects of the Changing Economics of Broadcasting*, ed. Robert G Picard and Paolo Siciliani (Oxford University, Reuters Institute for the Study of Journalism, 2013), 19. <http://reutersinstitute.politics.ox.ac.uk/publication/there-still-place-public-service-television>.
- 2 Alan Peacock, *Public Service Broadcasting without the BBC?* (London: Institute of Economic Affairs, 2004); Mark Armstrong, 'Public Service Broadcasting', *Fiscal Studies*, 26, 3 (Sept 2005) 281–99; Mark Oliver, *Changing the Channel: A Case for Radical Reform of Public Service Broadcasting in the UK* (London: Policy Exchange, 2010). Historically, a proviso was that, with advertising-funded television, the programme mix that maximises profit (net advertising revenue minus cost) may not be optimum for consumers:

- R. H. Coase, 'The Economics of Broadcasting and Government Policy,' *American Economic Review*, 56 (1 March 1966): 440–47. Today, with lower entry barriers and many ways for consumers to pay directly, this 'two-sided market' problem is less important.
- 3 White Paper, *A BBC for the Future: A Broadcaster of Distinction* (London: Department for Culture, Media & Sport, 2016), www.gov.uk/government/uploads/system/uploads/attachment_data/file/524864/DCMS_A_BBC_for_the_future_rev1.pdf, 10.
 - 4 See www.ofcom.org.uk/tv-radio-and-on-demand/broadcast-codes/broadcast-code. A rare exception was Fox News, simulcast from the USA, which was found in breach of the impartiality codes three times in two years: www.thedrum.com/news/2016/08/22/fox-news-building-record-itself-it-receives-third-breach-ofcom. (In contrast, Sky News has an excellent impartiality record). 21st Century Fox has now withdrawn Fox News from the UK, perhaps as part of its bid.
 - 5 This excludes the Welsh language S4C, funded by the BBC and advertising.
 - 6 Throughout this chapter, ITV (which, for simplicity, here includes all holders of Channel 3 licences), C4 and C5 are defined as commercial public service *broadcasters* (PSBs). This includes their portfolio channels, although, for most regulatory purposes (eg minutes per hour of commercial airtime) only their main channels are designated public service *channels*.
 - 7 Ofcom, *Communications Market Report 2017* (London: Ofcom, 2017) https://www.ofcom.org.uk/_data/assets/pdf_file/0017/105074/cmr-2017-uk.pdf, 77.
 - 8 Unless the household (i) includes at least one person aged 75+ or (ii) watches only online, free-riding BBC-TV (the 'iPlayer' loophole).
 - 9 Patrick Barwise and Robert G. Picard, *What If There Were No BBC Television?: The Net Impact on UK Viewers* (Oxford University: Reuters Institute for the Study of Journalism, 2014), <http://reutersinstitute.politics.ox.ac.uk/publication/what-if-there-were-no-bbc-television>, 34–35.
 - 10 Sources: BARB Establishment Survey 4Q16 and company websites, accessed 10 March 2017.
 - 11 FEH Media Insight, *EPG Prominence and Channel Performance: It Still Matters*, March 2017. www.feh-mi.com/blog/epg-prominence-and-channel-performance-it-still-matters/.
 - 12 Ofcom, *PSB Annual Research Report 2017: TV Viewing Annex*, July 2017, https://www.ofcom.org.uk/_data/assets/pdf_file/0015/103920/annex-b-tv-viewing.pdf
 - 13 For an explanation of why this is an appropriate measure, see Barwise and Picard, *What If There Were No BBC Television?* 33–34. Note that advertisers' total expenditure on TV advertising is about 15–20% higher than NAR as it also includes commercial production costs and agency fees.
 - 14 Barwise and Picard, *What If There Were No BBC Television?* 36–37.
 - 15 To adjust for 8% cumulative CPI inflation 2012–2016, these ratios should be divided by 1.08. For instance, the inflation-adjusted ratio for BBC TV was $0.96/1.08 = 0.89$, an 11% reduction in real revenue.
 - 16 Note that this excludes the viewing of programmes time-shifted by more than seven days and/or viewed on other devices. Both of these grew significantly over this period, accounting for most of the reduction in 'TV viewing' in Table 5.1.
 - 17 Toby Syfret and Gill Hinds, *BBC Green Paper: Red Alert on Funding* (London: Enders Analysis, 2015) (report 2015–064). *BBC Annual Report 2015/16*.
 - 18 The availability of non-PSB *channels* varies from a small minority (individual premium sport and movie channels) to almost 100% (non-PSB Freeview channels).
 - 19 £5.99/month is £1.38/week. With two adults/household each watching for 5 hours/week, the direct CPVH is $£1.38/(2 \times 5.0 \text{ hours}) = 13.8\text{p}/\text{hour}$.
 - 20 58.8p/2.

- 21 Nominal revenue: Ofcom, *Communications Market Report 2017*, Figs 2.11, 2.14. Viewing (scheduled programmes on TV sets, live or up to seven days after broadcast): *PSB Annual Research Report 2017: TV Viewing Annex*, p26. Assumes 'other' revenue split 38/62 between commercial PSBs and non-PSBs, as in Barwise and Picard, *What If There Were No BBC Television?* 23.
- 22 Patrick Barwise and Andrew Ehrenberg, *Television and its Audience* (London: Sage, 1988). Chapter 5 summarises the relevant research on audience appreciation. For 'double jeopardy', see William N McPhee, *Formal Theories of Mass Behavior* (New York: Free Press, 1963) and Andrew Ehrenberg, Gerald Goodhardt and Patrick Barwise, 'Double Jeopardy Revisited', *Journal of Marketing*, 54, 3 (July 1990): 82–91.
- 23 Because the commercial PSBs are mostly funded by advertising, their consumer VFM has never been questioned in the way that the BBC's often is.
- 24 MTM, *Life Without the BBC: Household Study* (London: MTM, 2015), <https://downloads.bbc.co.uk/aboutthebbc/reports/pdf/lifewithoutthebbc.pdf>.
- 25 $72\% \times (21/22)$ plus $28\% \times (33/48) = 88\%$.
- 26 Ofcom, *PSB Annual Report 2017: Audience Opinions Annex*, (July 2017), 4–5 https://www.ofcom.org.uk/__data/assets/pdf_file/0023/103919/annex-a-audience-opinions.pdf.
- 27 Patrick Barwise and Seán Meehan, *Simply Better: Winning and Keeping Customers by Delivering What Matters Most* (Boston, MA: Harvard Business School Press, 2004).
- 28 A possible exception is premium pay TV for the 21% of households who subscribe to it (but not the 79% who do not). Premium sport and movie channels are priced much higher than even basic pay TV but may well generate exceptional audience appreciation among their subscribers.
- 29 Barwise and Picard, *What If There Were No BBC Television?*