

2 Television and audio-visual content

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The reach of broadcast TV remained high in 2016, with 91% of the TV population watching TV at least once in a typical week in 2016.

2.1 Key market developments in TV and audio-visual

2.1.1 Sector overview

The time spent watching broadcast TV continued to decline in 2016, although to a lesser extent than in previous years, decreasing by four minutes since 2015 to an average of 3 hours 32 minutes a day across all individuals aged 4+.

Within that overall decline, there is a widening gap between the viewing activities of the youngest and oldest audiences. The steepest decline in average viewing of broadcast TV was among children (4-15) and adults aged 16-24, while average viewing for over-64s increased slightly. Furthermore, new research from Ofcom found that 66% of teens use YouTube to watch TV programmes/films compared to 38% of all adults in 2017.

Despite the threat from online services, revenues for the broadcast TV industry increased by 1.0% in real terms to £13.8bn in 2016, with further revenue of £1.7bn generated by online AV services. Within this, net advertising revenue in the traditional TV sector exceeded £4bn for the second consecutive year. Despite fundamental changes in the advertising market over the last ten years, the television advertising market has remained very resilient due to its primacy in providing mass audiences.

Pay-TV platform operators (Sky UK, Virgin Media, BT TV and TalkTalk TV) increased their revenues by 2.8% in real terms in 2016 to £6.4bn, accounting for 46% of broadcast industry revenue. On-demand and streaming services such as Netflix, Amazon Prime and NOW TV are mainly complementary to

these traditional pay-TV platforms: 74% of subscribers to on-demand and streaming services also have a pay-TV subscription.

Viewers have more choice than ever before, but the main public service broadcast channels (BBC One, BBC Two, ITV/STV/UTV, Channel 4 and Channel 5) continued to retain more than half of the total broadcast TV audience in 2016, maintaining their 51% share over the past four years. Including their portfolio channels, the PSB broadcasters accounted for more than two-thirds of viewing. The spend on UK-originated programming by the main five PSB channels was at its highest level since 2012, and more than half of the channels' output (52%) was first-run UK-originated content in 2016.

In the rest of section 2.1 below we look at two key market developments: the growth of on-demand and streaming services, and innovations in the TV advertising market.

Section 2.2 looks at the sector from an industry perspective. It outlines overall revenues and spend, provides an overview of the independent production sector and looks at developments in local TV.

Section 2.3 examines trends from the viewer's perspective. It looks at take-up by platform and examines how people are watching television, including through connected TVs and digital video recorders. It then looks at broadcast TV viewing, including by channel and how viewing varies by age group. It concludes by examining consumers' attitudes to television.

Figure 2.1: Industry metrics

UK television industry	2011	2012	2013	2014	2015	2016
Total broadcast TV industry revenue (£bn)	13.3	13.1	13.1	13.3	13.7	13.8
Proportion of revenue which is BBC income allocated to TV	21%	21%	20%	21%	19%	18%
Proportion of revenue generated by advertising	29%	28%	29%	29%	30%	30%
Proportion of revenue generated by subscriptions	44%	44%	46%	45%	45%	46%
Total online TV industry revenue (£bn)	0.3	0.4	0.6	0.9	1.3	1.7
Broadcaster share of total display advertising spend	31%	31%	31%	31%	30%	30%
Spend on first run originated output by main five PSB channels (£bn)	2.7	2.7	2.5	2.6	2.6	2.7
Spend on network content by UK broadcasters (£bn)	5.9	5.9	5.9	6.4	6.6	7.3
Multichannel take-up/TV homes	94%	96%	95%	93%	95%	96%
Minutes spent watching TV per day (per person aged 4+)	242	241	232	220	216	212
Share of the main five PSB channels in all homes	54	52	51	51	51	51

Source: Ofcom/broadcasters/Ampere Analysis/Advertising Association/Warc/BARB/. Note: Financial figures are expressed in real terms (adjusted for 2016 CPI prices). BBC income allocated to TV includes the proportion of the licence fee that goes to S4C. Broadcaster share as a proportion of total display advertising spend excludes direct mail and classified ads and is based on Advertising Association/Warc Expenditure Report. The AA/Warc data are net of discounts, and include agency commission, but excludes production costs. Spend on originations includes spend on nations and regions programming (not Welsh or Gaelic language programmes but some Irish language). TV viewing based on BARB analysis of viewing to scheduled TV programmes on TV sets up to seven days after first broadcast. Multichannel take-up/TV homes are from BARB's Establishment survey. Data for 2011 and 2012 refers to multichannel take-up. After DSO in October 2012, all homes were required to have digital TV. From 2013, data refers to the proportion of UK homes that had a working TV set as defined in BARB's Establishment Survey. Data refers to Q4 of each year. BARB changed the methodology for defining a TV set home from Q4 2015 and data comparisons to previous years should be treated with caution.

2.1.2 On-demand and streaming services

BBC iPlayer is the most popular on-demand/streaming service in the UK among adults

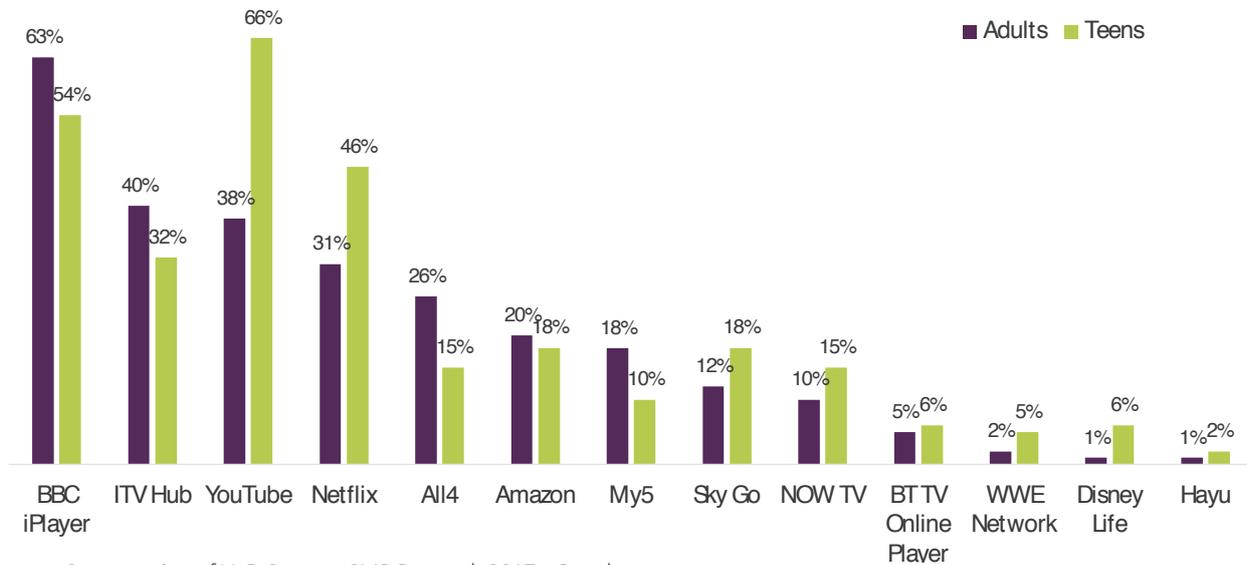
Ofcom research asked adults aged 16 and over, and teens aged 12-15, about the type of on-demand and streaming services they use to watch TV programmes and films in 2017. BBC iPlayer was the most popular service across all adults, with 63% of respondents saying

they use it. Among teens, YouTube was the most popular service, with 66% saying they used this to watch TV programmes and films compared to 54% using BBC iPlayer.

Of the services that require payment (excluding the licence-fee funded iPlayer), Netflix was the

most popular among both adults and teens. While 31% of adults claimed to use Netflix, nearly half of all teens said they used it (46%), making it the third most popular on-demand and streaming service overall among that age group.

Figure 2.2: Use of on-demand and streaming services to watch TV programmes/films



Source: Consumption of VoD Content CMR Research 2017 – Populus

Q5. Thinking about when you watch TV programmes/films, do you use any of the following?

Base: Adults (2356) Teens (505)

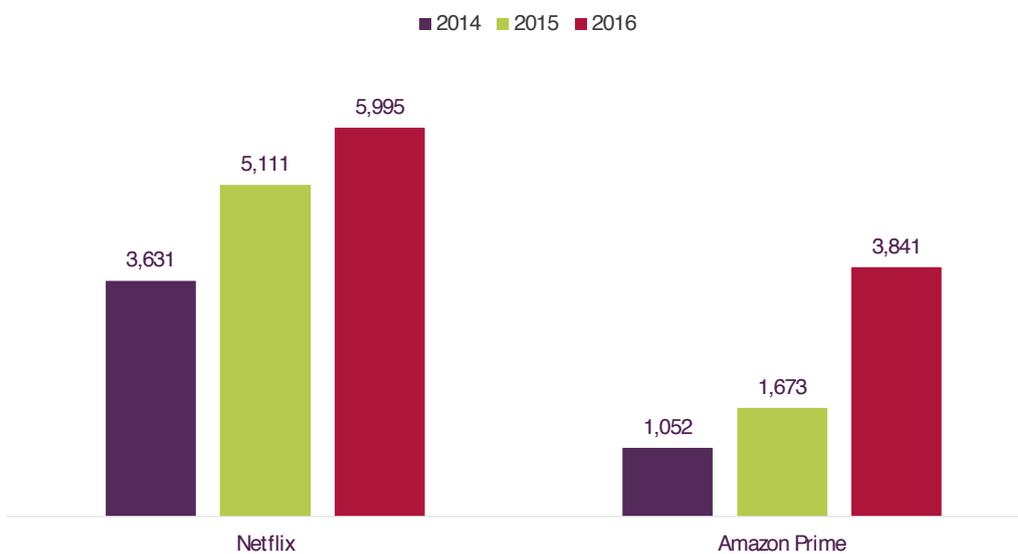
Amazon’s subscription growth outpaced that of Netflix in 2016

The two leading pure subscription on-demand and streaming services in the UK continued to be Netflix and Amazon Prime in 2016. Netflix had nearly 6.0 million subscribers by the final

quarter of the year, according to estimates from Ampere Analysis, with year-on-year growth of 17%. Amazon’s video service is rolled up into the Amazon Prime product

which offers free next-day delivery on eligible purchases. Amazon more than doubled its subscription base over 2016, to an estimated 3.8 million subscribers to Amazon Prime by the end of the year.

Figure 2.3: On-demand/streaming service subscription numbers: 2014-2016 (000s)



Source: Ampere Analysis

Note: Data points are from Q4 each year.

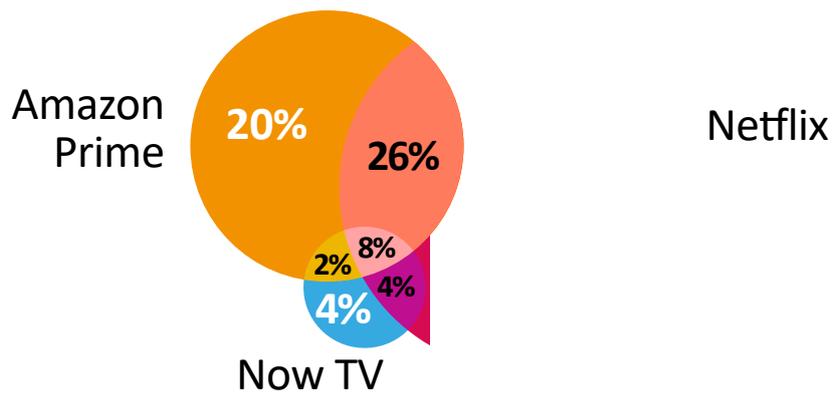
Many people subscribe to more than one on-demand /streaming service

By the end of 2016, four in ten users of Netflix, Amazon Prime and NOW TV had access to more than one of these services. The

most popular combination was Netflix and Amazon Prime, with 26% of users using both services in the final quarter of 2016.

Eight per cent of all users of Netflix, Amazon Prime and NOW TV had access to all three services in the final three months of 2016.

Figure 2.4: Subscription on-demand and streaming services overlap



Source: GfK SVoD Tracker, Q4 2016 October-December 2016

Notes: EW1: Reasons for signing up for/ using service

Base: Netflix users (n=1670 (138 triallists)), Amazon Prime Video users (n=1255 (156 triallists)), NOW TV users (n=423 (80 triallists))

Note: Users include those who either subscribe to or are trialling each service and use it at least once a fortnight.

2.1.3 Behaviours and attitudes of on-demand and streaming service users

Free trials and promotional periods are key subscription drivers

GfK’s SVoD tracker looks at the behaviours and attitudes of Netflix and Amazon Prime users as well as those of the pay-TV service NOW TV.

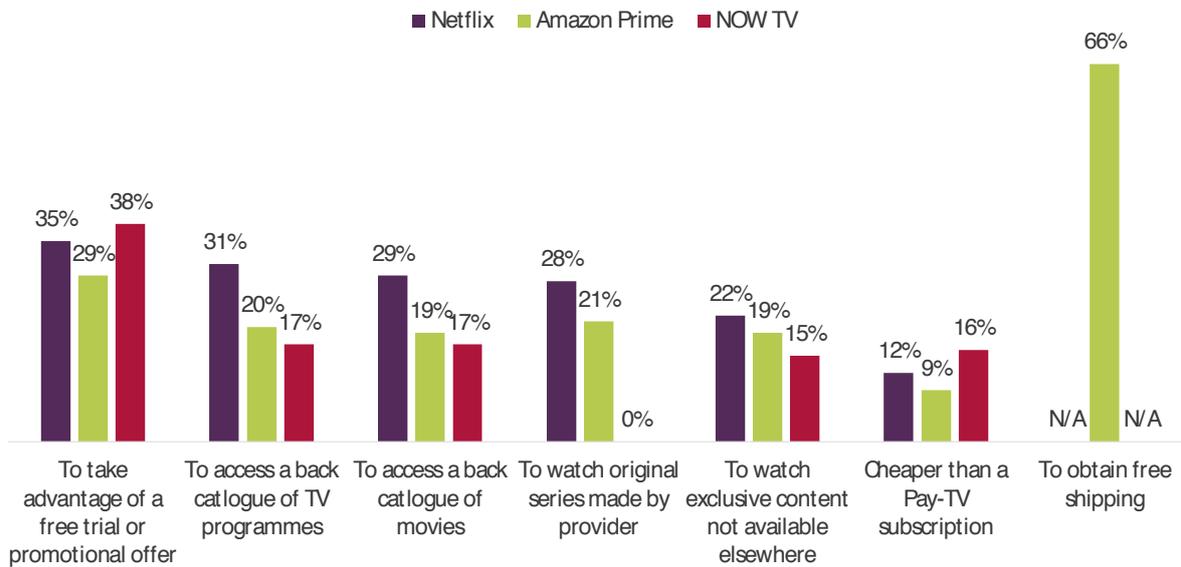
The most popular reason reported by Netflix and NOW TV users for signing up to these services was

to take advantage of a free trial or promotional offer (35% and 38% of respondents respectively).

As mentioned above, Amazon’s video service is bundled with its Amazon Prime product which offers free next-day delivery among other

services; this appears to be a key driver of take-up. In the last quarter of 2016, 66% of users said one of the reasons they signed-up/used the service was to obtain free shipping.

Figure 2.5: Selected reasons for signing-up/ using Netflix, Amazon Prime and NOW TV



Source: GfK SVoD Tracker, Q4 2016 October-December 2016

Notes: EW1: Reasons for signing up for/ using service

Base: Netflix users (n=1670 (138 triallists)), Amazon Prime Video users (n=1255 (156 triallists)), NOW TV users (n=423 (80 triallists))

Note: Users include those who either subscribe to or are trialling each service and use it at least once a fortnight.

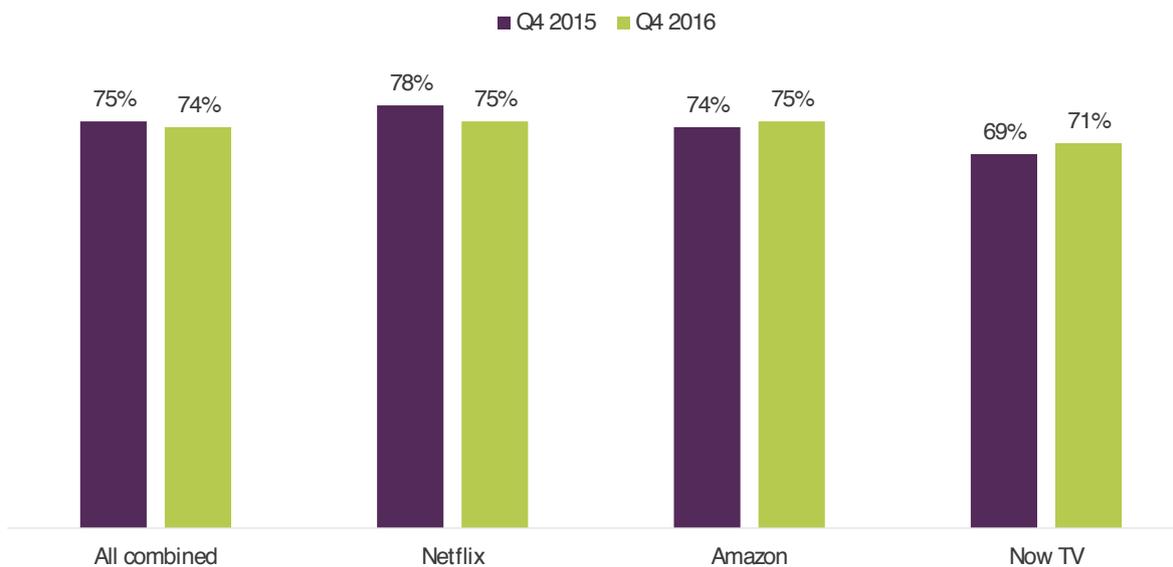
Nearly three-quarters of Netflix, Amazon Prime and NOW TV users also have a traditional pay-TV subscription

There has been very little movement in the proportion of Netflix, Amazon Prime and NOW TV users who also take a traditional pay-TV service (e.g. services offered by Sky, Virgin Media and BT that are provided through a set-top box). The 74% reported at the end of 2016 was only slightly down on 75%, 12 months earlier.

At 71% at the end of 2016, fewer NOW TV users had a traditional pay-TV subscription than did Netflix and Amazon users (both at 75%). However this was a slight increase on the 69% reported at the end of 2015 and could be a sign that some users are taking NOW TV to make up for a reduced package through their traditional pay-TV service.

For the most part, consumers do not sign up to these services because they are cheaper than a traditional pay-TV service. As Figure 2.5 shows, between 9% and 12% of Netflix and Amazon users cite cost saving as a reason, although this is higher among NOW TV users at 16%. These findings suggest that such services are largely complementary to traditional pay-TV services rather than a replacement for them.

Figure 2.6: Proportion of online TV service users with a traditional pay-TV service



Source: GfK SVoD Tracker, Q4 2016 October-December 2016

P7: Services currently have.

Base: Netflix users (n=1670 (138 triallists)), Amazon Prime Video users (n=1255 (156 triallists)), NOW TV users (n=423 (80 triallists))

Note: Users include those who either subscribe to or are trialling each service and use it at least once a fortnight.

In the UK, seven of the top ten most-viewed shows across these services in the final quarter of 2016 were Netflix and Amazon originals

Netflix and Amazon have both invested in an increasing number of high-profile productions in recent years, around which they have focused much of their marketing. These typically use high-profile talent and have high production values, and as such are among the most expensive television shows

being produced. This strategy has been successful in attracting audiences: the top four most-viewed shows by Netflix, Amazon Prime and NOW TV users in the final three months of 2016 in the UK were all original productions exclusive to either Netflix or Amazon.

Orange is the New Black, Marvel’s Luke Cage and Narcos proved popular on Netflix, while Amazon’s The Grand Tour was the third most-watched show over this time period, despite Amazon having considerably fewer users than Netflix

Figure 2.7: Top ten television programmes viewed on subscription on-demand and streaming services in the UK (Q4 2016)

	Rank	Service	Commission Type
Orange is the New Black	1	Netflix	Original
Marvel’s Luke Cage	2	Netflix	Original
The Grand Tour	3	Amazon	Original
Narcos	4	Netflix	Original
Breaking Bad	5	Netflix	Acquisition
Stranger Things	6	Netflix	Original
The Crown	7	Netflix	Original
The Man in the High Castle	8	Amazon	Original
Lucifer	9	Amazon	Acquisition
American Horror Story	10	Netflix	Acquisition

Source: GfK SVoD Tracker, Q4 2016 October-December 2016

Notes: All users of Netflix, Amazon Prime and NOW TV at least once a fortnight. Rankings are based on total minutes consumed.

2.1.4 Innovations in the TV advertising market

The current advertising landscape

The advertising market has undergone a fundamental change in the last decade. The fragmentation of media consumption across platforms, and the pluralisation of devices, has challenged the viability of the traditional media advertising business model. Online advertising, with its wide, albeit patchy reach, ‘infinite’ inventory and low prices has tried to lure advertisers away from ‘old’ media. And it has in part succeeded. Print budgets have consistently migrated away from newspapers and magazines to online display, search, and classified formats, due to falling print circulation levels¹ and the relatively high costs of placing print advertisements. However, the decline of print is not the only driver of the rise of online advertising budgets. The large online platforms have also swept up the ‘long tail’

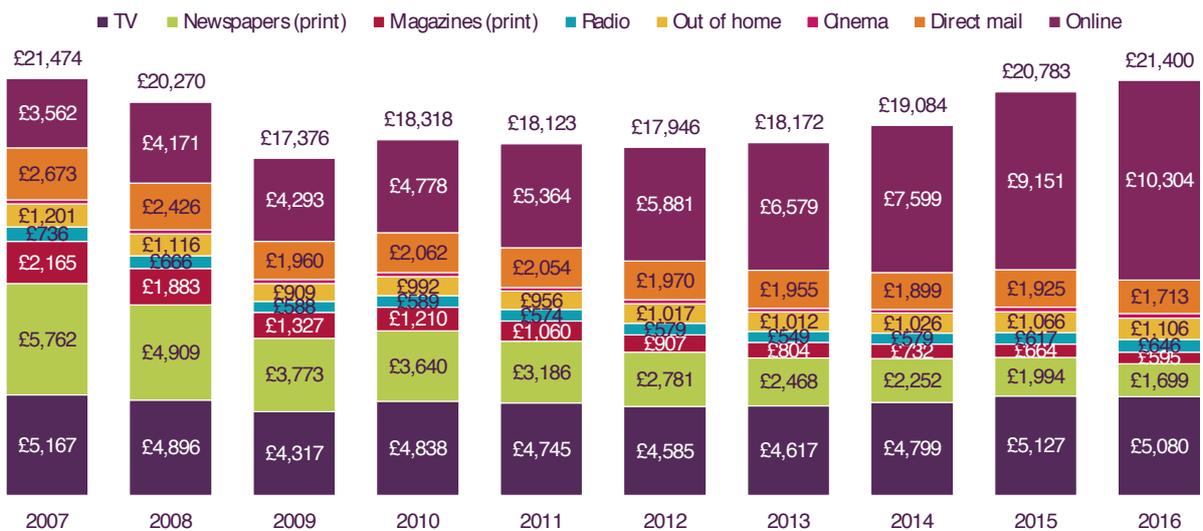
of small businesses which had not previously bought advertising, and have benefited from the rise in the mobile economy (particularly through the promotion of mobile app-install ads). According to GroupM, a subsidiary of advertising agency WPP, 70% of online advertising revenues come from small and local businesses, many of which only sell digital products². In Q1 2017, Facebook reported five million active advertisers, yielding revenue per advertiser of \$1,571 (£1,162), globally. The company claimed that its top 100 advertisers represented less than a quarter of the company’s ad revenue in Q4 2016, indicating Facebook’s reliance on smaller businesses.

Figure 2.8 below shows how advertising spend has changed in the UK over the last decade. Some of the changes are cyclical;

mature advertising markets such as that of the UK move in cycles, highly correlated with economic indicators like GDP growth, private consumption and industrial production in the long-term and consumer spending and the corporate profit levels of major consumer facing brands, in the short to mid-term. The 2009 economic recession shrank the UK advertising market by 14% in real terms. However, since 2011 the overall advertising market has grown at a compound annual growth rate (CAGR) of 3% a year in real terms (2011-2016), in line with, and sometimes above, GDP increases.

There have also been structural changes in the UK advertising market in the last decade. Online has grown, while print advertising has declined.

Figure 2.8: UK advertising expenditure (£m)



Source: AA/WARC Expenditure Report for TV, newspapers, magazines, radio, out of home, cinema, and direct mail; IAB UK for online advertising (search, display excluding video, video and other). Notes: all digital ad expenditure (e.g. broadcaster video advertising and publisher display and classifieds) has been removed from TV, newspapers and magazines to avoid double-counting between these categories and online. TV includes spot advertising, sponsorship, and placement revenue. Figures expressed in real terms (adjusted for 2016 CPI prices).

¹ See circulation figures in “News Consumption in the UK: 2016”, https://www.ofcom.org.uk/_data/assets/pdf_file/0017/103625/news-consumption-uk-2016.pdf

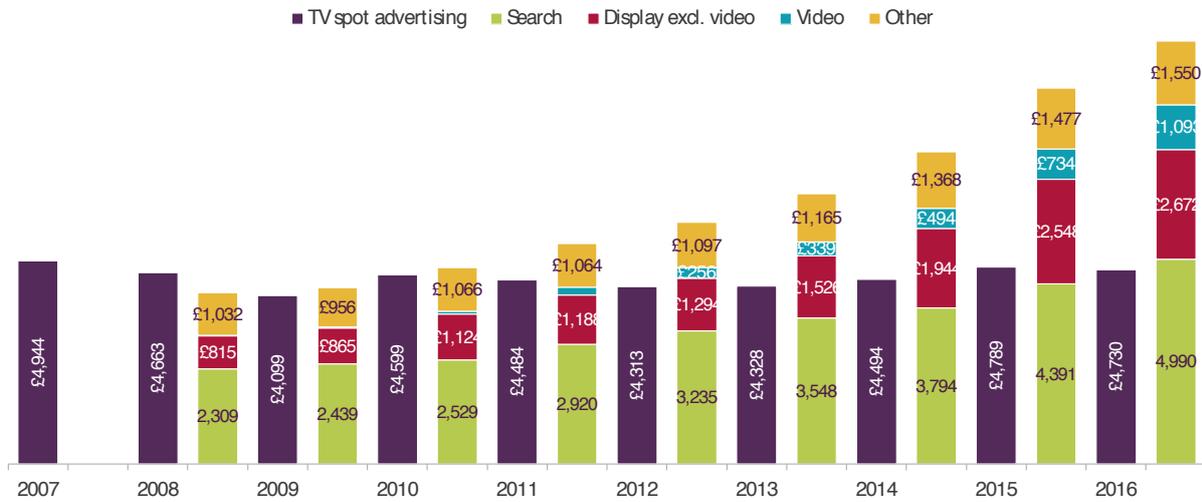
² <http://www.wpp.com/wpp/press/2017/may/01/interaction-2017-digital-advertising-investment-will-surpass-tv-in-five-more-countries/>

During this time, TV has remained resilient in terms of revenue. It was overtaken as the largest advertising medium by online in 2011, following the global economic recession, and has been stable ever since. No single online advertising format surpassed TV spot advertising until 2016 (when search overtook TV). However, comparing television to online can be misleading. Television employs a consistent, standardised advertising format (most advertisements are 15-, 30- or 60-second audiovisual spots) whereas online comprises a plethora

of formats including banners, rich media, search, classified, video, pop-ups and others. Much of the growth in online has been driven by the pay-per-click model of search, which is a direct-response format, focused on driving immediate actions (sales, clicks, views etc.) rather than creating brand awareness. Comparing TV to search and other performance-based online ad formats is therefore not pertinent as they are derived from two separate marketing budgets: brand awareness and direct marketing.

Online video, which is the most similar online advertising format for TV advertisers and is sometimes used to repurpose and repackage 30-second TV ad spots (e.g. adapt a TV advertising spot into a shorter desktop or mobile-friendly format) is still relatively small, at 19% of the size of TV spot advertising in 2016. However, online video is also often used as a direct-response format and therefore cannot be compared and may not directly compete with TV advertising budgets.

Figure 2.9: UK TV and online advertising expenditure (£m)



Source: AA/WARC Expenditure Report for TV spot advertising; IAB UK for online advertising (search, display excluding video, video and other).

Notes: TV spot advertising includes all expenditure generated from TV advertising spots (typically 30 or 60 second spots). This figure excludes TV sponsorship, product placement and other forms of TV revenue. Search advertising is a form of advertising that seeks to promote websites by increasing their visibility in search engine results pages. Display advertising is a type of online advertising that comes in several forms including banner ads, rich media and more. Video advertising is the digital recording of a physical event that have been encoded into a digital video format. Other includes all online ad formats which are not covered in search, display and video such as online classifieds and directories. Figures expressed in real terms (adjusted for 2016 CPI prices).

Potential future threats to TV advertising

The TV advertising model has faced a number of obstacles in recent years.

The increasing importance of a clearly measurable return on investment: following the global recession of 2009, there has been a shift in the way some brands are run; advertisers have become more prudent with their expenses, and require clear return on investment (ROI) metrics to justify their spend. TV advertising remains resilient, but had had to work harder to justify its prowess. Thinkbox, the marketing body for UK TV companies, released a study in 2014, quantifying the ROI in monetary terms of TV advertising compared to other media, to show the value of television campaigns to advertisers¹.

Declining linear audiences: declining linear TV audiences in other markets such as the Nordic countries have challenged the long-term sustainability of the TV advertising model. In the UK so far, TV audiences have been stable or slightly declining, mainly

driven by falls in the youngest demographics. However, audience falls do not always translate into declines in revenue, as audience is only one of three key variables feeding into advertising revenue. TV advertising revenue is a function of:

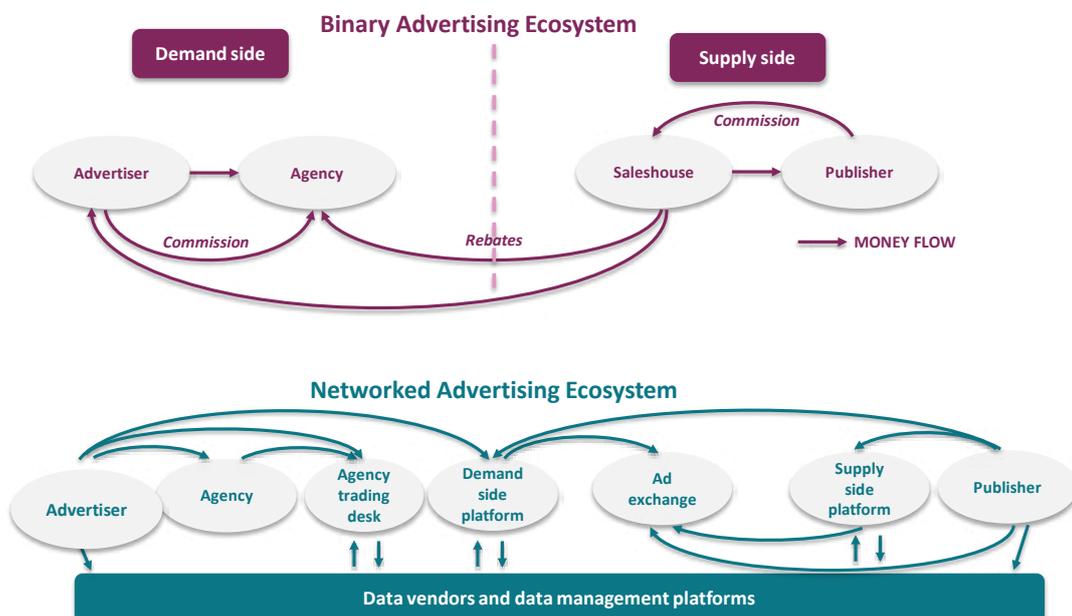
- reach (audience as measured by BARB and referenced throughout this report);
- volume (the length and number advertisements); and
- price (the value of each advertisement).

Migration of younger demographics: BARB data show (see section 1.3 of this chapter, TV and the audiovisual consumer) that 16-24 year-olds are watching increasingly less linear broadcast TV, turning instead to online and mobile platforms (subscription-based services like Netflix, Amazon Video and Disney Life, or ad-funded platforms like YouTube, Facebook and Snapchat). This has been a cause for concern for brands, which want to reach younger

audiences, but are finding it harder to reach them due to platform fragmentation and the lack of availability of mass advertising inventory (e.g. on subscription-based services which are ad-free).

The rise of data-driven advertising technologies and the re-architecture of the advertising ecosystem: the advertising ecosystem used to be represented in terms of adual market in which the demand side (advertisers and agencies) bought advertising from the supply side (sales houses and broadcasters/publishers). With the proliferation of data in the digital space (through log-in data from companies like Facebook, Google and Apple and cookie-collected third-party data), the ecosystem is evolving towards a more complex networked system of trade with more intermediaries. Broadcasters have to adapt and innovate in order to benefit from new technologies, protect revenues and compete with new media firms.

Figure 2.10: Evolution of advertising ecosystem



¹ <https://www.thinkbox.tv/Research/Thinkbox-research/Payback-4-pathways-to-profit>

TV remains the medium of choice for large brand advertisers

Despite some of the challenges outlined above, the TV advertising model remains in a strong position for brand advertising, as it continues to deliver mass audiences, high-impact advertisements with consistent measurement and established sales structures.

Primacy in providing mass audiences with consistent measurement:

TV remains the preferred medium for mass marketing due to its large, verified audience: although advertisers are pushing for more efficiency in their advertising spend, their main concern continues to be advertising effectiveness. TV can offer advertisers mass reach at a single point in time which the online medium is still unable to achieve. As mentioned above, in the TV market, advertisers and broadcasters agree on the BARB measurement system (although BARB is evolving and innovating using agreed standards as viewing on different devices grows through the BARB Project Dovetail¹) and are happy to trade against it

as a common currency. This does not yet exist to the same degree in the online advertising space, which makes it more difficult for agencies to understand and communicate to advertisers the value of one online publisher/platform against another.

High-impact advertisements:

TV provides advertisers with high production value video advertising formats, which allows them to showcase their products, particularly when introducing a new one to the market. The production value of TV advertisements continues to outpace that of online, which still relies primarily on low-cost desktop and mobile display advertising formats.

Established sales structures:

agencies are incentivised to continue buying TV for two reasons. Firstly, it is established and well-understood and hence quite an easy choice for agency executives who often have targets with limited flexibility. Secondly, due to their long-established relationships, they can get considerable discounts

from TV ad sales houses, which are beneficial for their clients and their own businesses. However due to the high degree of auditing in TV advertising, it is difficult to achieve high growth in agency margins. The lack of transparency and consistency in price setting in the digital advertising value chain has therefore given agencies motivation to move some TV ad spend to online channels. Conversely, online channels can be quite challenging for agencies to navigate. The pluralisation of digital advertising intermediaries means that they often do not get the same value for money online and their revenue can be dispersed and shared among numerous, new players. This can make agencies inclined to revert to TV. The pluralisation of digital advertising intermediaries means that they often do not get the same value for money online and their revenue can be dispersed and shared among numerous, new players. This can make agencies inclined to revert to TV.

¹ <http://www.barb.co.uk/project-dovetail/>

Online advertising faces a number of challenges in attracting TV ad spend:

So far, the strong growth in online advertising expenditure has not posed any significant threats to the traditional TV advertising model, and has surged independently of TV advertising budgets. There are a few challenges which have tended to separate online from the TV advertising space:

Inconsistent, non-transparent and often inaccurate measurement:

In digital advertising, unlike TV, there are many measurement tools, employing different methods, often covering some but not all relevant market players. Tools can under-represent the mobile space, which is increasingly significant, and may not agree on the terms and definitions of viewability of an ad. Furthermore, many of the large online platforms have their own proprietary measurement systems, which they use to evaluate advertising campaigns with a varying degree of accuracy. For example, in 2016, it was revealed that Facebook had over-estimated average viewing time for its video advertisements by accounting for video advertisements viewed for more than three seconds. The fragmentation of measurement across companies causes challenges in comparing a Facebook video ad to a YouTube video ad or a Snapchat video ad, which are different in format, context, and length, but vying for the same budgets. Online ad measurement can be inconsistent, flawed, and with caveats, making it difficult for advertisers and agencies to compile a unified picture of the landscape and compare the price of one ad against the other, which may in turn hinders further investment.

Brand safety: the most important element of an advertising campaign for a brand is reaching the intended audience. However, the context within which the ad is placed also matters. At the end of 2016, numerous large brands withdrew their advertising spend from Google's YouTube platform in protest at their advertisements appearing against 'extremist' content without their permission. Online is not subject to the same degree of content regulation as TV, posing a risk for advertisers. They invest large budgets to build their brand equity, a positive consumer perception of their product or service, which takes time to build, but can be lost very easily. The guarantee that an ad will appear against brand-appropriate content is much weaker in the digital space compared to TV.

Ad fraud: although online claims to offer an actual rather than panel audience, it is heavily plagued with fraudulent, bot-generated traffic. The US Association of National Advertisers estimated that \$7.2bn was lost globally due to ad fraud in 2016¹. This remains a substantial concern for advertisers, particularly as they try to become more efficient in how they allocate ad spend.

Ad blocking: another source of trepidation for advertisers buying online inventory is the advent of ad blocking, the use of software which hides or stops the loading of adverts. According to a Pagefair report², the global number of devices that used ad blockers amounted to 615 million in 2016, and UK ad block penetration per person online is 16% (or 11 million devices), mostly accounted for by ad blockers installed on a desktop. The main motivations for using ad blockers are individuals' irritation with interruptive formats and concern about security of viruses and malware. This may have made some advertisers apprehensive about buying online formats because of the negative predisposition of audiences toward online ads, and fear that their ads will never be seen. However, unlike ad fraud, detecting ad blocking software is more straightforward, and many broadcasters and publishers have adopted the policy of preventing users from viewing content with an active ad blocker (for example if an ad blocker is activated, ITV Hub will not allow a user to consume ITV content, until it has been switched off or removed). Ad blockers can be deployed in two ways: through user-installed apps which act as plug-ins for browsers (e.g. Ghostery or Adblock Plus) or publisher-implemented (e.g. Three's proposed implementation of a network-wide ad blocker, which did not come to fruition in the UK, but has been launched in other markets, e.g. by Digicel in the Caribbean).

¹ The Bot baseline: fraud in digital advertising, 19 January, 2016, <http://www.ana.net/content/show/id/botfraud-2016>

² The state of the blocked web, 2017 Global Adblock Report, February 2017, <https://pagefair.com/downloads/2017/01/PageFair-2017-Adblock-Report.pdf>

Innovation in TV: addressable and programmatic advertising

The continued value and prevalence of the traditional TV advertising model does not, however, mean that TV companies have focused solely on sticking to tried and tested ways of selling and delivering advertising. Broadcasters and TV companies have also innovated in the advertising products and technologies that they offer their clients. To compete with and capture online budgets, TV companies have introduced new advertising formats and technologies.

Addressable TV advertising is the use of audience data (often from the set-top box) to serve different ads to different households (or different people in the same household) against the same content. An example of this format is Sky AdSmart, which uses customer billing and geographic data to tailor advertisements to a specific viewer. This has mostly been used by luxury car companies to target affluent individuals and customise the ads to include information about the dealership nearest to each viewer. A viewer in York will

see a different ad from a viewer in Cardiff, from the same advertiser. According to Sky, the majority of the budgets which go through Sky AdSmart are new to Sky, usually cannibalising digital budgets, and hence incremental to Sky's traditional TV advertising revenue.

Beyond addressable, and often following from it, is **programmatic TV advertising**; the use of data to algorithmically create new audience segments and automate their sale in both the planning and execution stage of a campaign. For example, in 2016, through programmatic technology, a US advertiser working with Dish TV chose to target left-handed nurses, a demographic not offered by traditional measurement systems, and bought across many programmes rather than against just one. Programmatic advertising can be executed in video on demand, AVOD (e.g. Channel 4's All4 or ITV's ITVHub) or linear TV (not yet implemented in the UK, but launched by Dish TV and DirecTV in the US and Corus in Canada, in 2016). Similarly, to

addressable advertising, this targets digital budgets and aims to help broadcasters get rid of unsold inventory (replacing the function of an ad network) and increase the price of their digital video and remnant TV advertisements.

Addressable and programmatic are not substitutes for mass audience advertising, but can be a useful tool for broadcasters to increase their revenue in particular slots and during particular times of day, which are not in high demand.

They are still very small portions of TV companies' total revenues, but are increasingly significant and growing rapidly. As broadcasters look for new avenues for growth, they will continue to expand their digital offerings and invest in addressable and programmatic advertising. The challenge for them will be deciding which advertising technology companies to partner with, and how to differentiate between them in an increasingly crowded space.

2.2 The TV and audio-visual industries

This section looks at a range of metrics from the broadcast television industry, including revenues, content spend and broadcast hours.

It also provides commentary on consumer choice in the pay-TV market. It then goes on to provide an update on recent developments in the local TV sector.

2.2.1 Overview of TV industry revenue

The UK TV industry grew by 1% in real terms in 2016 and was worth £13.8bn

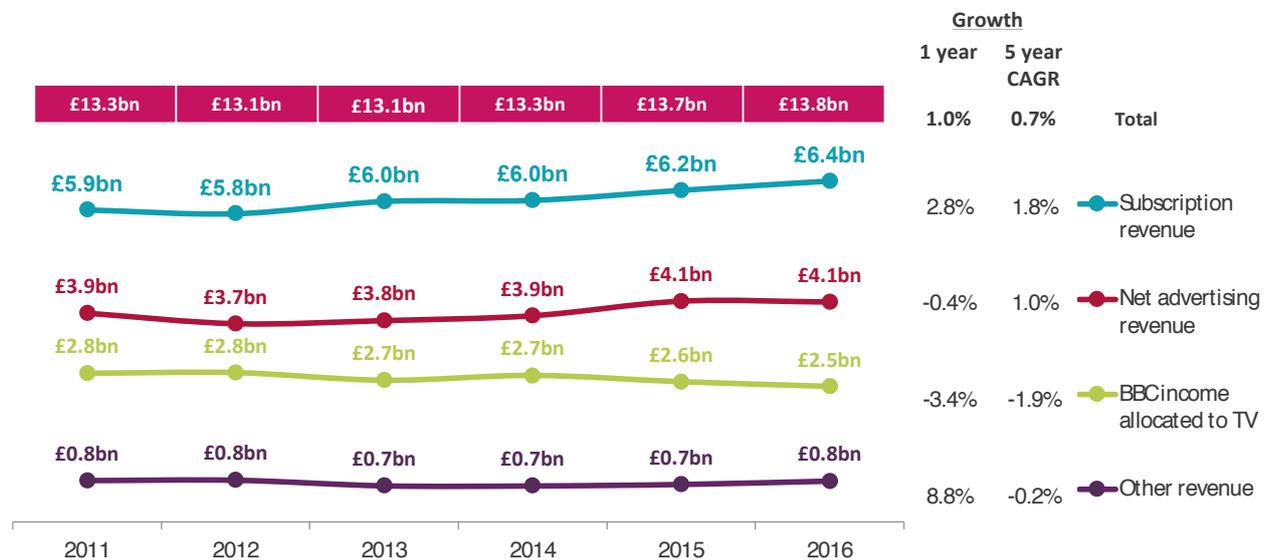
The UK broadcast television industry generated £13.8bn in revenue during 2016, a £0.1bn (1.0%) rise on 2015 in real terms. This was primarily driven by an increase in pay-TV subscription revenue, up by 2.8% year on year to reach £6.4bn. In recent years, there has been a small rise in the

average revenue per unit (ARPU) in television subscription data Ofcom has collected, which may partially explain this rise. Net advertising revenue remained flat (analysed in more detail in section 1.1.4).

Ofcom estimates that the BBC allocated £2.5bn to television in 2016, a drop of 3.4% on the

previous year in real terms. This is a continuation of the slight decline in BBC television revenue in real terms over the past five years. Revenue from other sources such as TV shopping, sponsorship and interactive services was up by 8.8% in real terms year on year at £0.8bn, the same as it was in 2011.

Figure 2.11: Total broadcast TV industry revenue, by source



Source: Ofcom/broadcasters.

Note: Figures expressed in real terms (2016 prices) and replace previous Ofcom revenue data for TV industry, owing to restatements and improvements in methodologies. 'Subscription revenue' includes Ofcom's estimates of Sky UK, Virgin Media, BT TV and TalkTalk subscriber revenue as well as, in previous years, that of ESPN and Top Up TV in the UK (Republic of Ireland revenue is excluded). It also excludes revenue generated by broadband and telephony. BBC income allocated to TV includes money allocated to S4C as well as BBC television broadcasting. 'Other' includes TV shopping, sponsorship, interactive (including premium-rate telephony services), programme sales and S4C's grant from the DCMS. Totals may not equal the sum of the components due to rounding.

Pay-TV platform operators generated 46% of total industry revenue in 2016

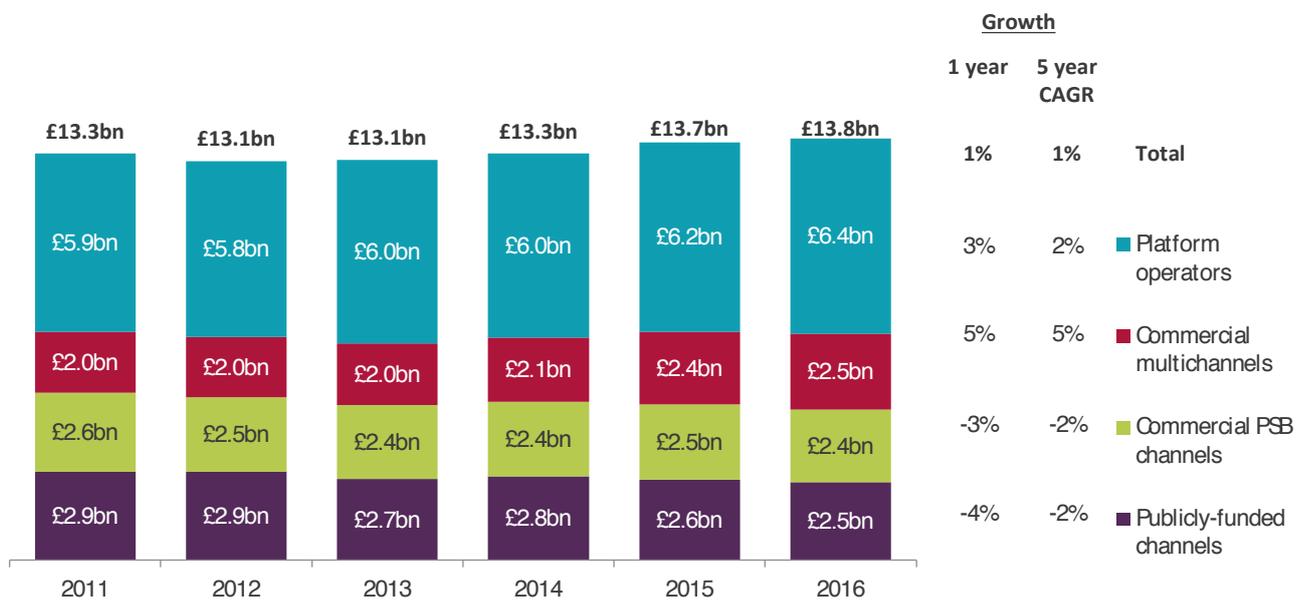
The pay-TV platform operators – in 2016, Sky UK, Virgin Media, BT TV and TalkTalkTV – generated 46% of total TV industry revenue in 2016, up by one percentage point on the previous year. The £6.4bn they generated in 2016 was a 3% year-on-year increase in real

terms, with an annual average rate of growth of 2% since 2011.

Over the past five years, commercial PSB channels’ revenue has declined at an average rate of 2% per year in real terms, totalling £2.4bn in 2016. Revenue for

commercial multichannels was £2.5bn in 2016, having grown at an average of 5% each year since 2011. Public funding was £2.5bn in 2016, following a modest real-terms decline in public funding of the TV industry since 2011 in real terms (around 2% a year).

Figure 2.12: Total broadcast TV industry revenue, by sector



Source: Ofcom/broadcasters.

Note: Figures expressed in real terms (2016 prices) and replace previous Ofcom revenue data for TV industry, owing to restatements and improvements in methodologies. The platform operators are Sky UK, Virgin Media, BT TV and TalkTalkTV as well as, in previous years, ESPN and Top Up TV in the UK (Republic of Ireland revenue is excluded). Commercial PSB channels comprise ITV/ITV Breakfast, STV, UTV, Channel 4, Channel 5 and S4C. Commercial multichannels comprise all multichannels including the commercial PSB broadcasters’ portfolio channels. Publicly-funded channels comprise BBC One, BBC Two, the BBC portfolio channels and S4C. The commercial revenues of S4C are included with the main commercial PSB channels while their licence fee revenue and DCMS grants come under publicly-funded channels. Totals may not equal the sum of the components due to rounding.

Online audiovisual revenues grew by 23% in 2016 but remain small compared to traditional television revenue sources

According to Ampere Analysis, online audio visual revenues generated by subscriptions, advertising, rental and retail grew by 23% year on year in real terms, to reach £1.65bn.

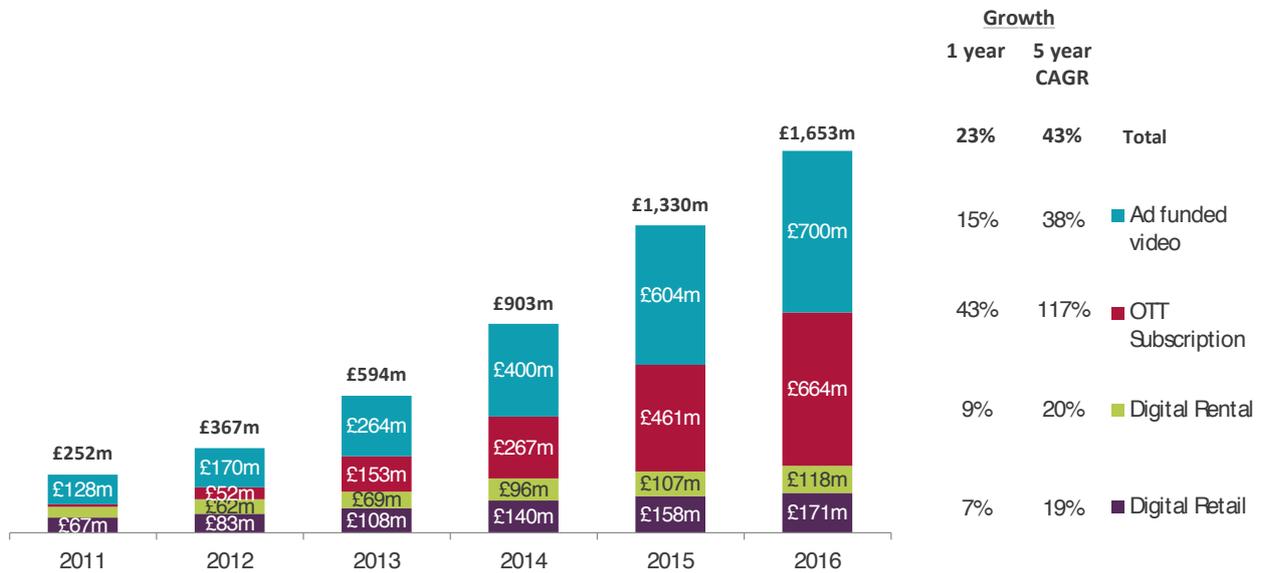
Online advertiser-funded video, including services such as YouTube, the ITV Hub, All4 and My5

generated £700m in 2016, up 15% on the previous year. Subscription revenue from services such as Netflix and Amazon Prime Video was the second largest contributor to revenues in 2016, at £664m. This represented annual growth of 43% and a compound annual growth rate of 117% over the last five years. Digital retail (download to own)

and digital rental both experienced single digit percentage growth.

We discuss how the take-up of on-demand and streaming services, including subscription services such as Netflix and Amazon Prime, is changing the TV landscape in the *Market in Context* section of this report.

Figure 2.13: Online audio visual revenues



Source: Ampere Analysis / ZenithOptimedia. Ad-funded video includes catch-up services, YouTube and other ad-funded video spend. OTT Subscription includes Netflix, Amazon Prime Video, Disneylife and NowTV. Digital rental includes one-off pay-per-view of films and video but excludes sport. Digital Retail figure is based on the British Association of Screen Entertainment spend figures exclusive of VAT and covers 'download to own' purchases. All figures are in real terms (2016 prices).
Note: Figure for 2011 ad funded video is an estimate as actual figures are not available.

2.2.2 Commercial television revenues

Television advertising revenues were flat in 2016

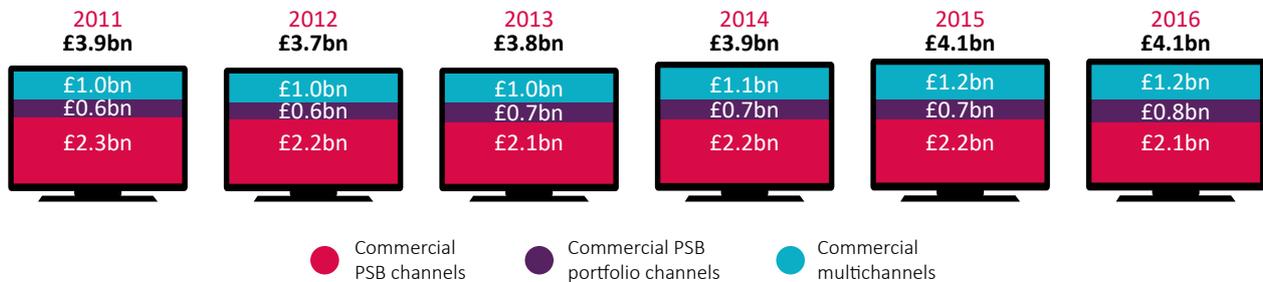
In real terms, TV advertising income in 2016 was in line with the previous year, at £4.1bn. The net advertising revenue (NAR) of commercial PSBs makes up just over half of commercial television advertising revenues. There was a 4% real terms fall in 2016 but

this was offset by 6% growth in revenue for the same broadcasters' non-PSB portfolio channels, and a 2% gain in the rest of the commercial multichannel sector.

PSB broadcasters' advertising revenue on their non-PSB portfolio channels has grown by an average

of 6% per annum in real terms over the past five years, helping them to maintain overall revenues around £2.9bn as their PSB channels have seen slight declines. Commercial channels' NAR has grown at an average of 5% each year over the past five years.

Figure 2.14: TV net advertising revenues, by source: 2011-2016



Source: Ofcom/broadcasters.

Note: Figures expressed are in real terms (2016 prices) and replace previous data published by Ofcom. Commercial PSB channels comprise ITV, STV, UTV, ITV Breakfast, Channel 4, Channel 5 and S4C (and their '+1' channels); Commercial PSB portfolio channels include, where relevant, ITV2, ITV3, ITV4, CITV, ITVBe, ITV Encore, E4, More 4, Film 4, 4Seven, Five USA, 5* and Spike (and their '+1' channels). For previous years closed channels have also been included. Sponsorship revenue not included. Totals may not equal the sum of the components due to rounding.

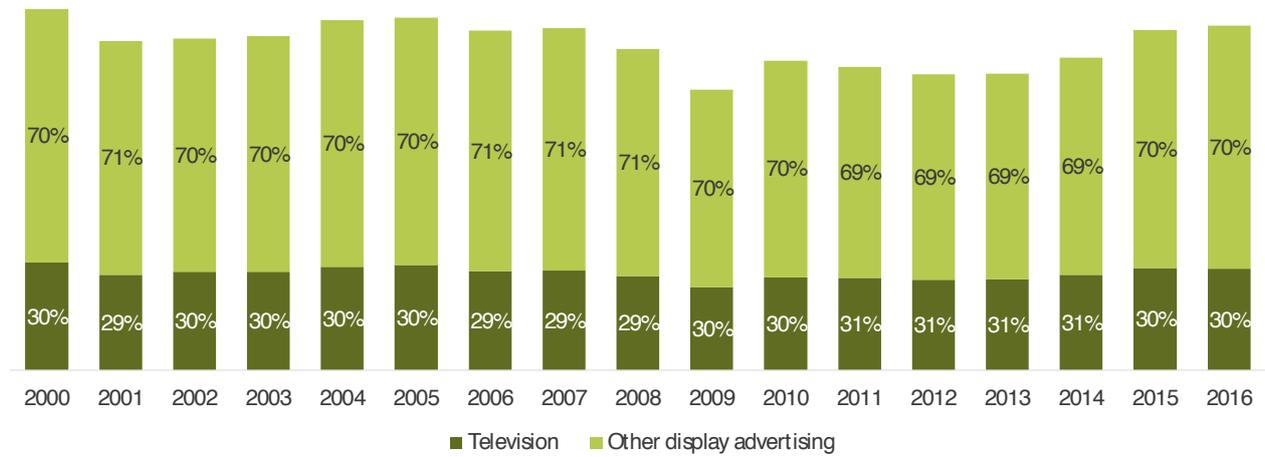
Television advertising revenues are growing in line with the overall display advertising market

According to Warc, total display advertising expenditure stood at £17.9bn in 2016, of which television display advertising spend accounted for £5.2bn (30%). In recent years

television advertising revenue as a proportion of all display advertising has remained consistent at around 30%. In real terms it has generated an average of £5bn per annum in

advertising revenues. For further information on the UK advertising market please refer to section 1.1.4.

Figure 2.15: Television percentage share of all display advertising expenditure



Source: AA/Warc Expenditure Report.

Note: Other display advertising expenditure includes radio, out of home, cinema, national and regional press display, internet, mobile and magazines but does not include response advertising such as direct mail. Television display include spot ads, sponsorship, product placement, advertiser funded programming and VoD. Figures are real terms.

Broadcaster revenue raised from other sources increased by 13% in 2016

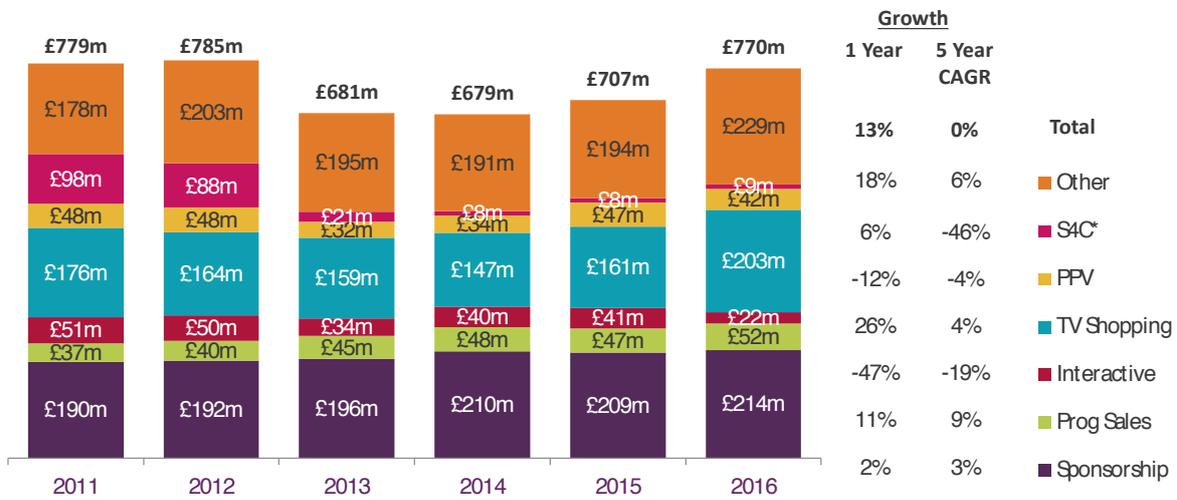
Television revenue raised from sources other than subscription income or advertising revenue increased by 13% in real terms in 2016 to total £770m.

Broadcasters revenues generated by TV shopping jumped by 26%

in 2016 to £203m, the sector’s highest level in the past five years as more channels offered this service. ‘Other revenues’, which can include revenue streams such as product placement, rights sales and commissioned productions for third parties also increased, rising

by 18% to £229m. Programme sales increased by 11%. After a flat 2015, sponsorship revenues returned to their previous growth trajectory. Since 2013 S4C has received most its funding from the BBC licence fee (Figure 2.12).

Figure 2.16: Breakdown of ‘other’ commercial TV channel revenue; 2011-2016



Source: Ofcom/broadcasters. TV shopping represents aggregate operating margin of products sold via television. Totals may not equal the sum of the components due to rounding. Owing to the nature of these revenue components, annual changes may be a function of a higher number of broadcaster returns being made by the time of writing, rather than material changes in the contributions that these revenue components are making to total industry income. Figures are in real terms (2016 prices).

*A funding agreement which was reached in April 2013 meant that as of 2013 the majority of S4C funding comes out of the BBC’s licence fee income and is therefore included in Figure 2.12.¹

¹ See http://www.bbc.co.uk/bbctrust/news/press_releases/2013/s4c_op_agreement

2.2.3 Spend on UK television programmes

Broadcasters spent £7.3bn on network programming in 2016

Spend¹ in key genres² by channels broadcasting in the UK was £7.3bn in 2016, an increase of 11% year on year in real terms. Much of this increase was driven by the 24% rise in spend on sports channels in the multichannel sector. 2016 marked the start of the new English Premier League Football broadcast rights deals, for which Sky and BT paid a higher price than in previous years. The two companies together paid a record £5.136bn for live Premier League TV rights for three seasons starting from 2016-17³. This is a 59% increase on the £3.018bn they paid for three seasons in 2012. Sports channels accounted for 40% of spend on UK

programming, up from 36% in 2015.

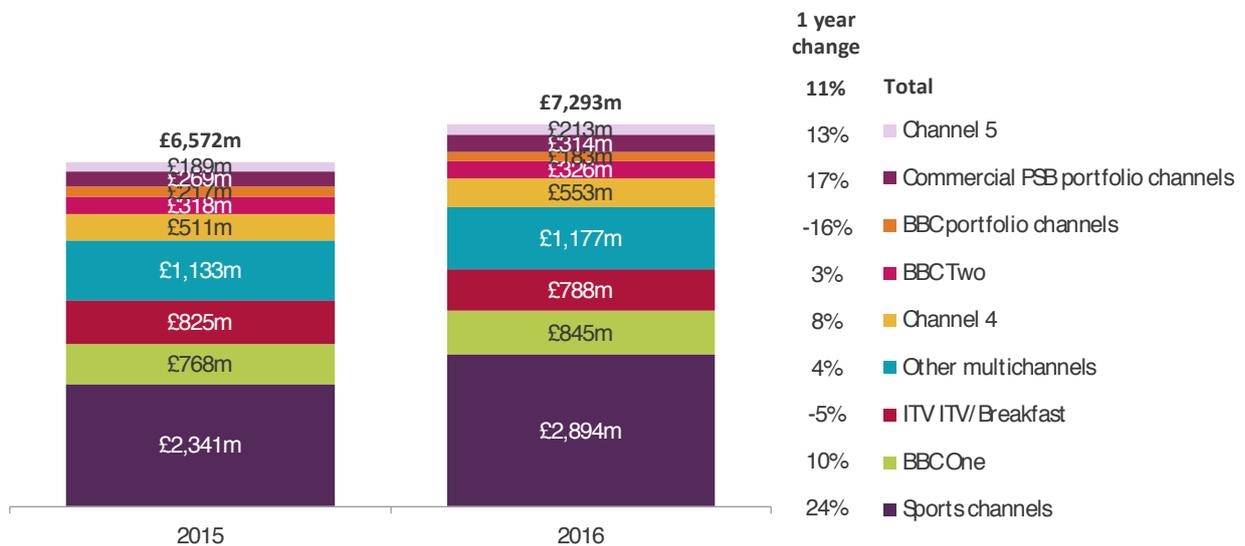
The BBC portfolio channels reported a real-terms decrease in spend for the second year running. Some of this may be attributable to BBC Three’s move online in February 2016, which was carried out partly to make broadcast savings⁴. The channel’s budget was reduced from £85m to £25m as part of the move⁵.

Spend on BBC One programming overtook ITV spend in 2016, rising by 10% in real terms after a dip in 2015, when there was no Olympics or World Cup/ European Championship football. Another factor is the cost of the first showing of programmes which, in previous years, would

have been first shown on BBC Three; spend is now recorded against the channel on which programmes are first broadcast. ITV’s investment in programming fell by 5% in real terms year on year.

The PSB channels made up 37% of all network programme spend in 2016, down by three percentage points on 2015. The increase in spend in sports rights meant that film and sport channels combined (principally Sky Sports, Sky Cinema and BT Sport) made up 44% of the total, up by 4pp on the previous year. Channel 4, Channel 5, and the commercial PSB portfolio channels, all invested significantly more on programming than in 2015.

Figure 2.17: Spend on network TV programmes: 2015 – 2016



Source: Ofcom/broadcasters.

Note: Figures expressed in real terms. Figures do not include spend on nations’ and regions’ output. BBC portfolio channels includes BBC Three, BBC Four, BBC News, BBC Parliament, CBBC and CBeebies (but not BBC HD). ‘Other multichannels’ include all genres (excluding sports and films). Programme spend comprises in-house productions, commissions from independents, acquired programmes and repeats (originations and acquisitions).

¹ Spend figures here do not represent the entire cost of programme production in the UK as they do not include third-party funding or the full cost of co-productions with overseas broadcasters.

² See Figure 2.19 for detailed spend analysis of key genres.

³ Source: <http://www.bbc.co.uk/sport/football/31357409>

⁴ Source: <http://www.bbc.co.uk/news/entertainment-arts-35578867>

⁵ Source: <http://www.bbc.co.uk/news/entertainment-arts-34932688>

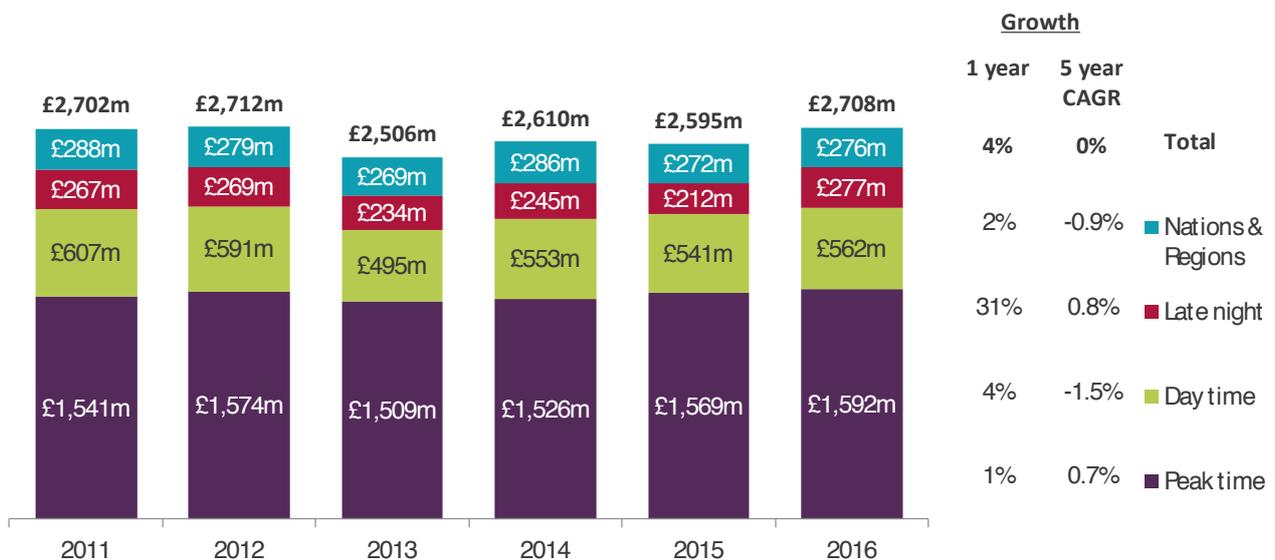
Spend on UK-originated programming by the main five PSB channels was at its highest level since 2012

Overall spend on first-run UK-originated programming (including nations’ and regions’ programming) by the main five PSB channels – BBC One, BBC Two, ITV (including ITV Breakfast)/STV/UTV, Channel 4 and Channel 5 – increased by 4% in real terms to £2,708m in 2016.

Spend on peak time programming and nations’ and regions’ programming was broadly stable, while spend on late-night and daytime programming grew by 31% and 4% respectively in real terms. This may be due in part to broadcasters increasing spend on

original sports content in daytime and late night when covering the 2016 UEFA European Football Championships and the Rio Olympic and Paralympic Games.

Figure 2.18: Spend on first-run UK originated output on the five main PSB channels



Source: Ofcom/broadcasters.

Note: Figures are expressed in real terms (2016 prices). They include ITV breakfast, spending in the nations and regions on English-language programming (and a small amount of Irish-language programmes) but do not include the BBC’s portfolio channels, BBC Alba or S4C.

Sports rights proportion of spend on content in the multichannel sector increases

In 2016 there was a real-terms increase of 24% to £2,894m in spend on content for sports channels in the multichannel sector, mostly as a result of the new Premier League football rights deal. Programming for sports channels accounted for 66% of total content spend across the

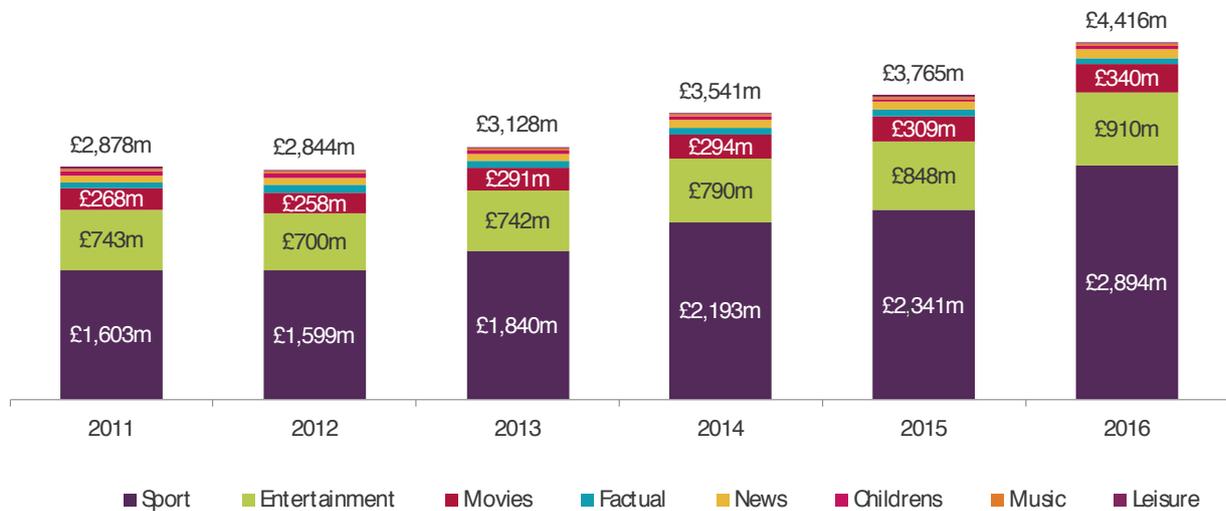
multichannel sector in the eight key genres shown in Figure 2.20, an increase of 3pp since 2015.

Year on year, content spend also increased for the entertainment (+7%), films (+10%), children’s (+22%) and news (+7%) channels, but decreased for

factual (-6%), music (-3%) and leisure (-19%) channels.

We focus on the eight key genres shown below as they best reflect the broadcasters active in the UK TV industry.

Figure 2.19: Multichannel content spend in key genres: 2011 – 2016



Source: Ofcom/broadcasters.

Note: Spend expressed in real terms (2016 prices). Excludes BBC portfolio channels but includes commercial PSB portfolio channels.

Figure 2.20: Multichannel content share of spend in key genres, 2016

	Sport	Entertainment	Movies	Factual	News	Children’s	Music	Leisure
Spend (£m)	2,894	910	340	83	105	42	27	15
Share (%)	66	21	8	2	2	1	0.6	0.3
Growth (%)	24	7	10	-6	7	22	-3	-19
Change in share (YoY)	3pp	-2pp	-1pp	-	-	-	-	-

Source: Ofcom/broadcasters.

Note: Excludes BBC portfolio channels but includes commercial PSB portfolio channels.

2.2.4 UK independent production sector

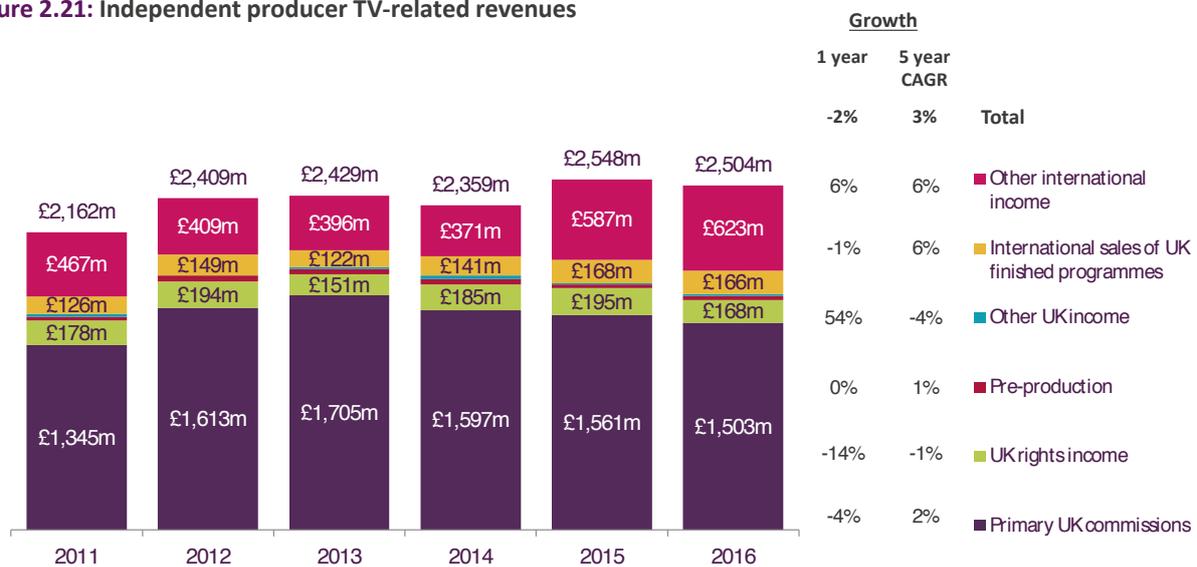
Independent producers' TV revenue saw a real-terms decrease in 2016

According to Pact's annual census of independent production companies in the UK, TV revenues within the independent sector were £2,504m in 2016, a 2% decrease on 2015 levels in real terms.

While primary UK commissions continued to make up the bulk of overall revenue at £1,503m, this was a 4% decrease in real terms on 2015 levels. Other international income – which includes primary commissions

and co-productions from non-UK broadcasters – saw impressive growth of 6% in real terms, to generate revenue of £623m in 2016.

Figure 2.21: Independent producer TV-related revenues



Source: Pact UK Television Production Census 2017, Oliver & Ohlbaum analysis

Note: Figures expressed in real terms (2016 prices).

'UK rights income' – UK secondary sales, publishing, formats, DVD sales etc.; 'International sales of UK finished programmes' – sales of first run UK programming sold as finished product abroad; 'Other international income' – primary commissions received from non-UK broadcasters and any revenue from companies' overseas operations. International revenue numbers from past years have been restated to reflect recent changes in methodology; this has affected the reporting of revenues from international subsidiaries of UK producers.

The proportion of spend on first-run UK originations by the PSB channels that went to external producers increased by two percentage points between 2011 and 2016

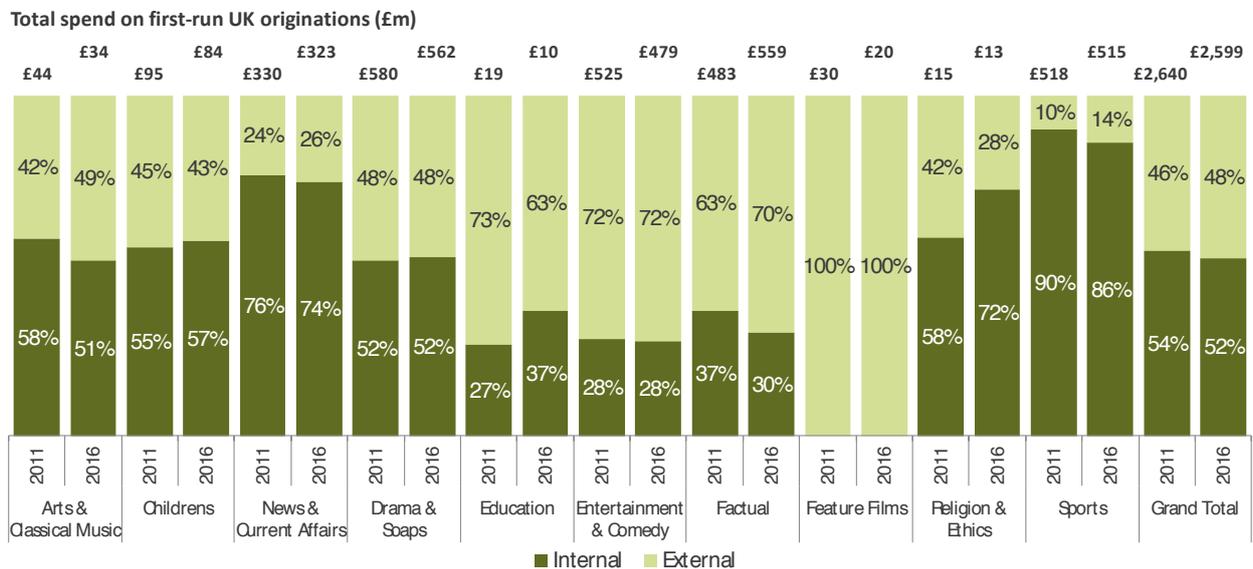
As in 2015, in 2016, across all genres, 48% of spend on first-run UK-originated content by the PSB channels (excluding nations’ and regions’ spend) was spent on external commissions. This 2pp increase on the 2011 figure of 46% equated to a £33m

increase in commissioning from external producers in real terms.

Of the £2.6bn spent by PSBs on new original content in 2016, £2.1bn was attributable to four genres: drama and soaps; factual; entertainment and comedy; and sport. In factual, and entertainment and comedy,

70% or more went towards external commissions, whereas in sport, 86% of spend was on internally-produced programming. Drama and soaps was more evenly split; 52% of spend was on internal productions and 48% was on external commissions.

Figure 2.22: Relative share of spend on first-run originated content by genre, in-house vs. external producers: 2011 and 2016



Source: Ofcom/broadcasters.

Note: Figures are expressed in real terms. Includes spend by the five main PSB channels and BBC portfolio channels on first-run originated content broadcast all day, and excludes nations/regions output.

2.2.5 UK television output

More than half the PSB channels' output was first-run UK-originated content in 2016

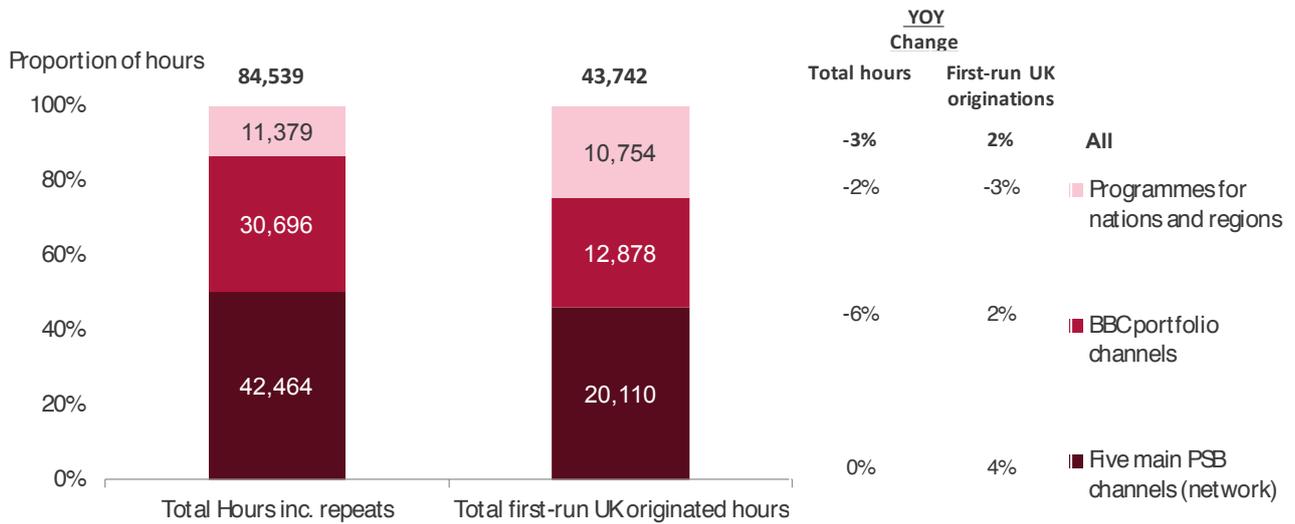
There were 84,539 hours of content broadcast by the PSB channels (including programmes for the nations and regions) in 2016, a small drop on the previous year, partly attributable to the moving of BBC Three to the BBC's online platform. Fifty-two per cent of PSB broadcast hours were first-

run UK originations, produced either in-house or commissioned from external producers, a 2pp increase year on year.

Despite the move of BBC Three to online only, and the resulting 6% fall in the total number of hours broadcast on the BBC portfolio channels, the number of hours

of first-run broadcasting across these channels actually increased by 2%. The total number of hours, including repeats, broadcast on the five main PSB channels was the same as last year, but first-run hours increased by 4%, with a small fall in the number of repeat hours.

Figure 2.23: Total and first-run UK originated hours of output on the PSB channels: 2016



Source: Ofcom/broadcasters.

Note: ITV Breakfast is included within the figures for the five main channels. Regional hours exclude Welsh and Gaelic-language programming but include a small amount of Irish-language programmes.

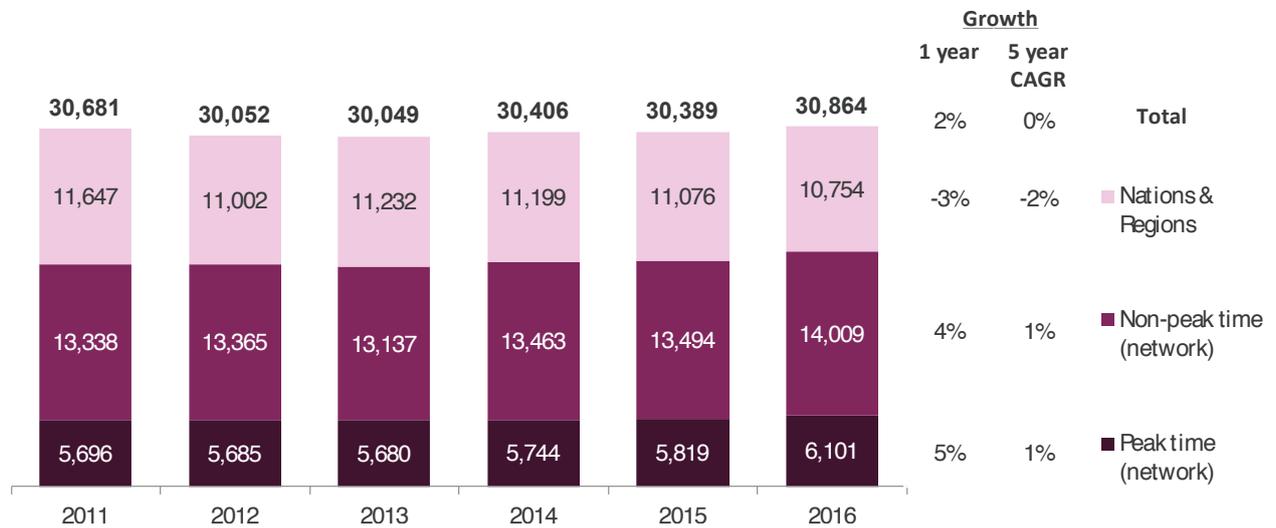
Hours of first-run UK-originated content in peak time broadcast by the main five PSB channels increased by 5% to their highest in five years

Overall, there was a 2% increase in the number of hours of original UK programming broadcast by the PSB channels (including programming for the nations and regions) in 2016. At 30,864, this is the highest number of original hours in the past five years.

Programmes broadcast during peak hours (between 6pm and 10.30pm) tend to have larger budgets and larger audiences. Hours of original network output in peak time have increased steadily since 2014 and rose 5% in 2016 to more than 6,000 hours, partly because ITV, the BBC and Channel 4 broadcast

more sports events in 2016 than in 2015 (the UEFA European Football Championships, the Olympic and Paralympic Games) and partly because some programmes that would have premiered on BBC Three in the past appeared instead on BBC One or BBC Two.

Figure 2.24: Hours of first-run UK originated output on the five main PSB channels



Source: Ofcom/broadcasters.

Note: Figures include ITV breakfast and a small amount of Irish-language programmes but do not include the BBC’s portfolio channels, BBC Alba or S4C.

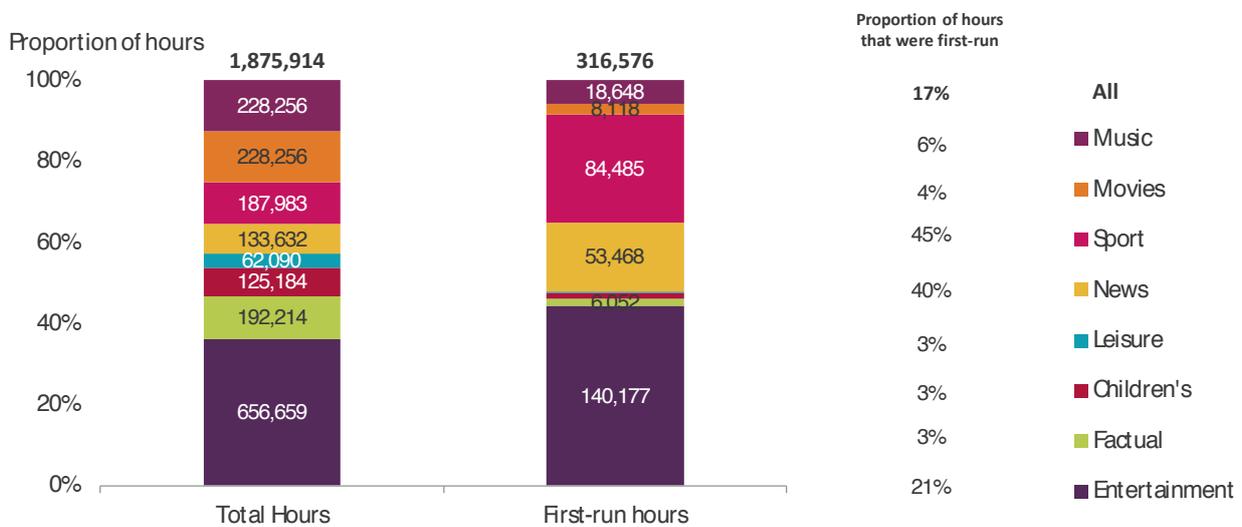
First-run originations/acquisitions made up 17% of all hours broadcast in key genres on the non-PSB channels in 2016

The multichannel sector consists of all television channels, other than the PSB main and portfolio channels, that broadcast to the UK and are licensed by Ofcom. Figure 2.25 shows the number of hours

broadcast in key genres in 2016. Of the 1.88 million hours broadcast by these channels in 2016, 17% were first-run originations or acquisitions, up from 13% in 2015. The highest proportions of first-run

originations were on sports (45%) and news (40%) channels, as, by their nature, both genres broadcast significant quantities of live content.

Figure 2.25: Total and first-run originated/acquired hours of output in key genres in the multichannel sector: 2016



Source: Ofcom/broadcasters.

Note: Broadcast hours exclude Sky Box Office and 'barker' channels which promote TV content. First-run hours include first-run in-house, commissioned and acquired content.

Consumer choice in the pay-TV sector

Pay-TV consumers have a wider range of options than ever before, with an increasing choice of service provider and content. The retail offerings of the four largest

traditional pay-TV providers are summarised below, while the pay-TV services offered by on-demand and streaming services are covered in section 2.1.2.¹

Figure 2.26: Summary of retail offerings from traditional pay TV providers

Provider	Retail offering
BT TV YouView	<ul style="list-style-type: none"> • Overview: BT TV only available when part of a triple play or quad play package. YouView box included. Choice of three main TV packages, all including the AMC channel. • Movies: Sky Cinema can be added to all TV packages. • Sports: All packages include BT Sport channels² and Box Nation. Customers can add Sky Sports 1 & 2. • VoD/out-of-home: All packages include catch-up TV. BT TV App allowing out-of-home viewing included in some packages.
Sky (DSat)	<ul style="list-style-type: none"> • Overview: Range of DSat TV options available including standalone, triple and quad play packages. All packages include Sky entertainment channels. Packages come with a Sky Q box. Sky also retails OTT through NOW TV, which is available on a standalone or triple play basis. • Movies: All Sky Cinema channels available. • Sports: All Sky Sports channels available. Sky customers can also access BT Sport through a separate subscription with BT. • VoD/out-of-home: All TV bundles include catch-up TV and out-of-home viewing through Sky Go or the Sky Q app.
TalkTalk YouView	<ul style="list-style-type: none"> • Overview: TalkTalk TV packages only available when part of a triple play or quad play package. YouView box included. Choice of two TV packages, one of which includes six Sky channels. Various content “Boosts” available through both packages. • Movies: Sky Cinema channels available through Sky Cinema Boost. • Sports: Sky Sports channels available through Sky Sports Boost. TalkTalk customers can access BT Sport through a separate subscription with BT. It also offers a Box Nation boost. • VoD/out-of-home: Both packages include catch-up TV and out-of-home viewing through TV2Go App.
Virgin Media	<ul style="list-style-type: none"> • Overview: Range of TV options available including standalone, dual, triple or quad play packages. TV V6 TiVo box included. • Movies: Sky Cinema channels available. The VIP package offers Sky Cinema channels as standard, whereas other packages allow add-on purchases. • Sports: All Sky Sports and BT Sport channels available. Some packages include them as standard, whereas other packages allow add-on purchases. • VoD/out-of-home: All TV packages include catch-up TV and out-of-home viewing through Virgin TV Anywhere.

Source: Providers’ websites.

¹ We note that EE also provides a hybrid DTT/IPTV service via its EE TV box and Plusnet also offers a pay TV service on YouView.

² As of 31 July 2017, BT Sport will cost BT TV subscribers £3.50 per month.

Sports content availability

As can be seen in Figure 2.27, both Sky Sports and BT Sport content are widely available to customers on the main traditional pay TV platforms.

Sky Sports and BT Sport channels are also accessible in other ways. For example, with a Sky DSat subscription, viewers can watch Sky Sports channels on the go

with the Sky Q or Sky Go apps. Consumers can also watch Sky Sports channels through NOW TV. In addition, it is possible to access BT Sport channels through BT broadband and BT and EE mobile.

In recent years, both BT and Sky have built relationships with social media partners to bring sports

content to a variety of audiences. For the second year running, BT has shown the Champions League and Europa League finals on YouTube, while Sky reached an agreement with Twitter to livestream UK football’s transfer deadline day.

Figure 2.27: Summary of Sky Sports and BT Sport availability from pay TV providers

	BT TV (YouView)	Sky (DSat)	Virgin Media	TalkTalk (YouView)	Other
Sky Sports 1&2	✓	✓	✓	✓ (no HD)	✗
Sky Sports 3,4,5 & F1	✗	✓	✓	✓ (no HD)	✗
NOW TV (Sky Sports passes)	✗	✗	✗	✗	✓ (EE TV)
BT Sport Pack (all BT Sport channels)	✓	✓ (BT retails)	✓	✓ (BT retails)	✓ Plusnet TV

Source: Providers’ websites.

2.2.6 The local TV sector

As of 31 May 2017, there were 28 local television channels on air in the UK, offering different approaches to programming for local viewers. Local television channels have adopted a range of business models, ranging from not-for-profit community ventures to new commercial partnerships between local newspapers,

television production companies and educational institutions.

The local television sector has contributed new local programming to the UK media landscape, particularly local news, but some channels have found their original output commitments difficult to deliver. Given some channels’

reliance on the three-year local television funding from the BBC¹, which ends in 2020, they may face a challenge to generate sufficient income in the longer term.

As we found last year, this year’s analysis indicates that some channels may have to continue to diversify their revenue streams.

¹ See <http://www.bbc.co.uk/corporate2/insidethebbc/howwework/reports/localtv.html>.

In 2011 the Government set out its plan for introducing local TV services

Writing in its January 2011 Local Media Action Plan, the Government said that local media “has an important part to play in drawing communities together”. It went on: “it reflects back communities’ stories and information of direct interest and relevance”.¹ The government committed to introduce local television services in locations across the UK.

In 2012 a statutory framework was established to enable local television services to be introduced.² Under this framework, Ofcom was tasked with licensing individual services in locations around the UK, and with licensing a new digital terrestrial television (DTT) multiplex that would broadcast all local services.

As well as guaranteed access to DTT spectrum, local television services benefit from appropriate prominence on the electronic programme guide (EPG), and can access some protected funding from the BBC in return for the supply of news items. In 2016 it was confirmed that all local television services which had launched by 31 July 2017 would continue to be able to access this three-year protected funding in their first three years. This would provide them with predictable earnings in those first years of broadcasting. No further BBC protected funding will be available after 31 July 2020.

Local TV licences have been awarded via a competitive process in which applicants propose programming commitments to reflect the type of service they propose to broadcast.

Applications are considered against specified statutory criteria, including the extent to which a proposed service would meet the needs of its local area and increase the number of television programmes made in or about the local area.

To ensure that licensees deliver the services they propose in their licence applications, programming commitments submitted in the applications are transposed to form part of the conditions of the licence when it is issued. Licence obligations therefore vary by service. They typically include a number of hours of first-run and repeated local programming. Within this local programming there is a set minimum number of hours of news and current affairs programming, which is measured both across the whole day and in peak time.

¹ See paragraph 2.1 of the DCMS document ‘Local Media Action Plan’ dated 19 January 2011.

² By means of the Local Digital Television Programme Services Order 2012.

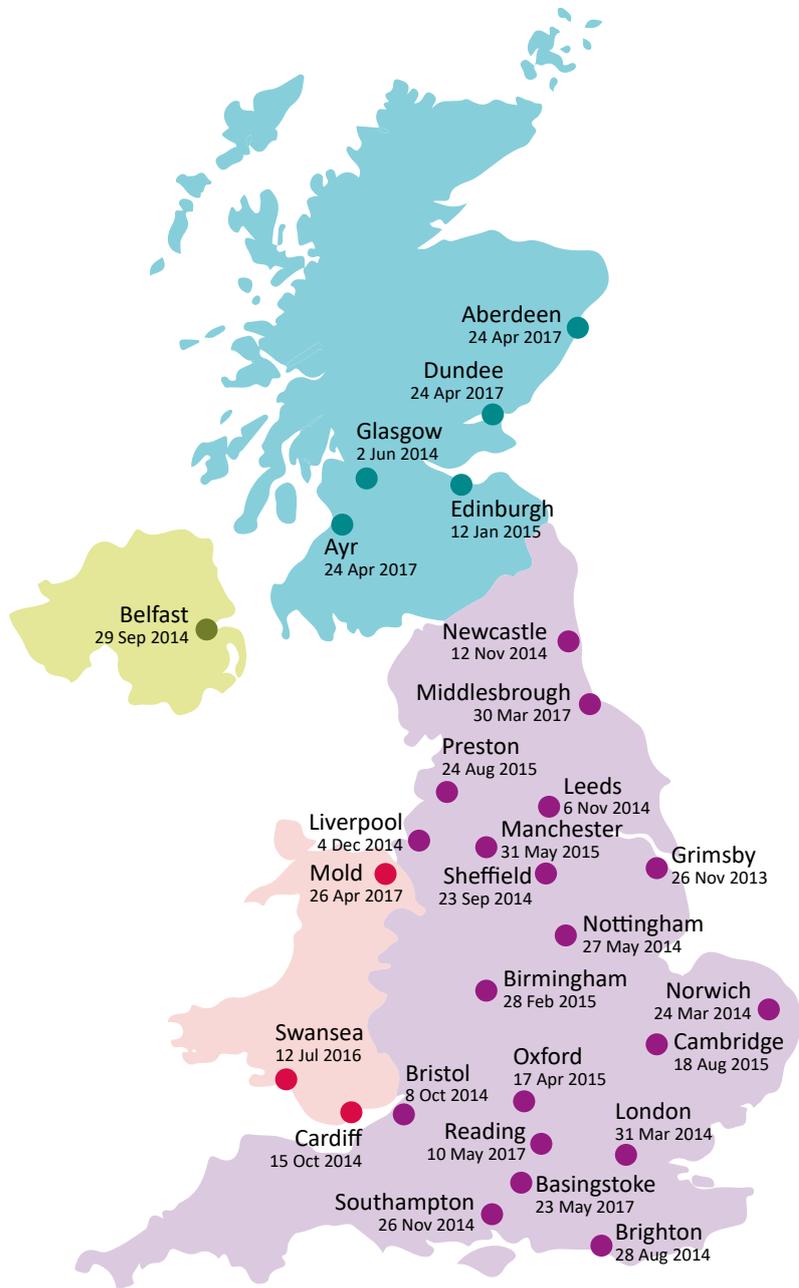
Twenty-eight local TV services are now on air in the UK

The first local television service launched in 2013, and as of 31 May 2017 there were a total of 28 local television services in operation. The below map displays the spread of local services and their launch dates.

In addition to the 28 services already on air, a further six licences have been awarded, with these services expected to have launched by the end of July 2017. As noted above, the individual local services are broadcast via a single DTT multiplex, which Ofcom also licenses. The multiplex is operated by Comux, a company which is collectively owned by the local service providers.

In April 2017 STV decided to brand all its local services as STV2, and launched this brand as a national commercial television channel in Scotland. STV2 programming now meets all the local programming commitments for the five local television licences which STV holds.

Figure 2.28: Launch dates of local TV services up to 31 May 2017



Source: Ofcom

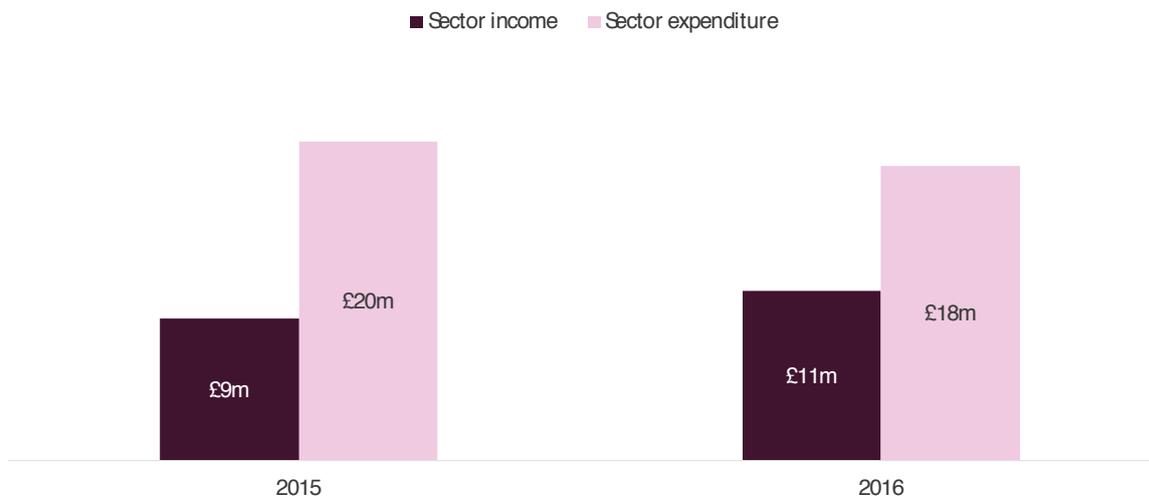
Many local TV services are facing challenges in generating income

As in 2015, spend by local television services outweighed income in 2016¹. Total expenditure for all services broadcasting in 2016 was £18.3m. The total income for all

21 services broadcasting in 2016 was £10.5m, compared with £8.8m for 20 services in 2015. Three of the 21 local television services in operation in 2016 made a profit.

Of the 20 services broadcasting in 2015 one was in profit and one broke even in the year.

Figure 2.29: Local TV services’ income and expenditure, 2015 - 2016



Source: Ofcom / broadcasters. Includes all channels operating in the year. Figures expressed in real terms (2016 prices).

Local television services are funded primarily through a mix of advertising, BBC funding (primarily protected funding through BBC purchase of local news items), other commercial and non-commercial income, and teleshopping. The

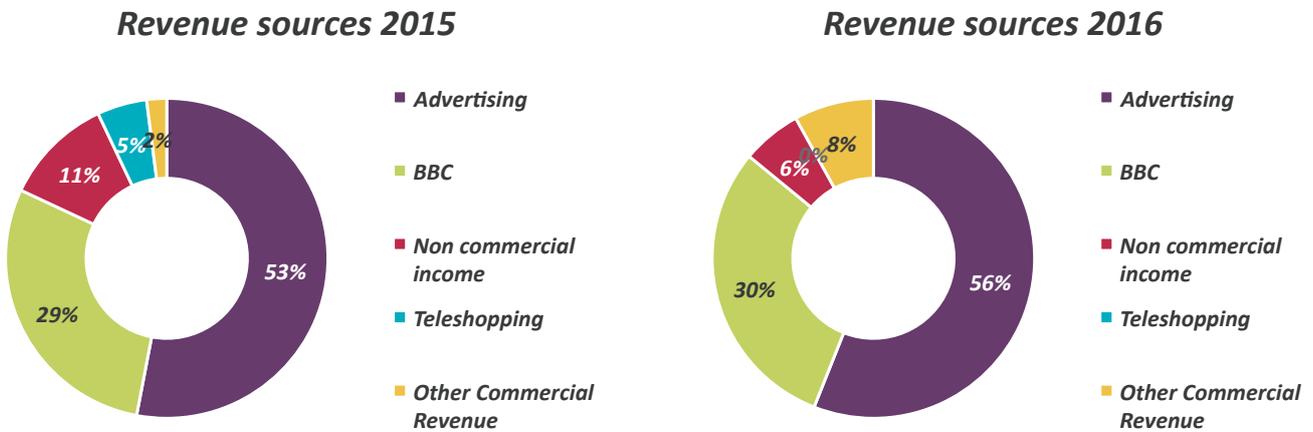
protected BBC funding was intended “to provide the new local television services with some funding certainty”.² Figure 2.30 shows the total income broken down by source in 2015 and 2016. Advertising revenue as a proportion

of all funding increased by three percentage points year on year. Other commercial revenues grew by 6pp, while teleshopping no longer accounted for any revenue in 2016.

¹ Analysis based on the income and expenditure declared by services to Ofcom for 2016 in their local return forms. One service was only able to provide income and expenditure figures for the last quarter of 2016 despite being on air for the full year. The other 20 services provided full year figures for 2016.

² http://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/bbc_local_content_acquisition_january2017.pdf

Figure 2.30: Local television revenue by source



Source: Ofcom/broadcasters. Includes all channels operating in the year.

Advertising income comprises national and local advertising. Non-commercial income is self-defined by the services in their local return form. It includes, for example, grants and revenue from media training services. Other commercial income is also self-defined by the services in their local return form. It includes commissions, production services, content sales, sponsorship, telephone competitions, digital sales and training fees.

One service was only able to provide income and expenditure figures for the last quarter of 2016 despite being on air for the full year. All other services provided full year figures for 2016.

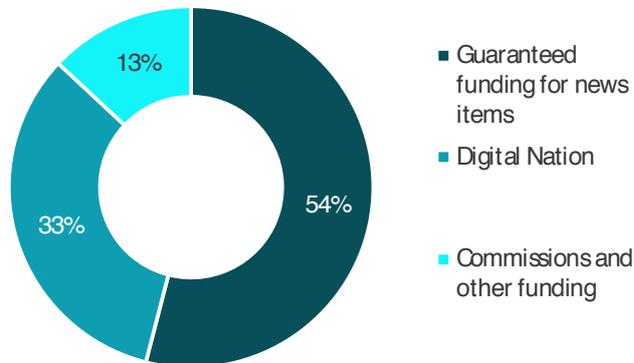
BBC funding accounted for almost a third (30%) of local television income in 2016, up by 1pp on the previous year in real terms. The income generated from the BBC comes from three sources: guaranteed funding for news items, the Digital Nation programme¹ and BBC commissions/ other BBC funding. As Figure 2.31 shows, for the sector as a whole, guaranteed funding accounted for 54% of the income generated from the BBC, and Digital Nation accounted for 33%. Both these sources have a strict end date: the Digital Nation funding programme finished on 31 March 2017 and protected BBC funding for news items ends when a service has been broadcasting

for three years, and must come to an end by 31 July 2020. This funding for news items is front-loaded, so that the guaranteed sums in the first and second years (£150k and £110k respectively) are considerably greater than that in the third year (£40k). This means that channels are supported in their initial start-up phase, but need to further diversify their business models in the future. As a result, in the course of 2017, 14 services will stop receiving the guaranteed BBC funding stream reserved for the local television sector, although they will still be able to bid for commissions and participate in other competitive BBC initiatives.

Some services remain reliant on funding from the BBC for a significant amount of time after launch. More than half (11 of 21) of local television channels received more than 50% of their income from the BBC in 2016, however the reliance on BBC funding varies considerably: in 2016, BBC funding made up 4% of total income for one service and 99% for another. There is no significant correlation between launch date and the level of reliance on BBC funding.

¹ Digital Nation was a showcase for reports from around the local TV sector. Eighty weekly episodes were acquired for online use by the BBC, whose fees were shared among stations that contributed to, or helped produce, the programme. The programme ran for 18 months and finished on 31 March 2017. The episodes are available online <http://www.bbc.co.uk/programmes/p04rrf9c/episodes/guide>

Figure 2.31: Local television income derived from the BBC: 2016



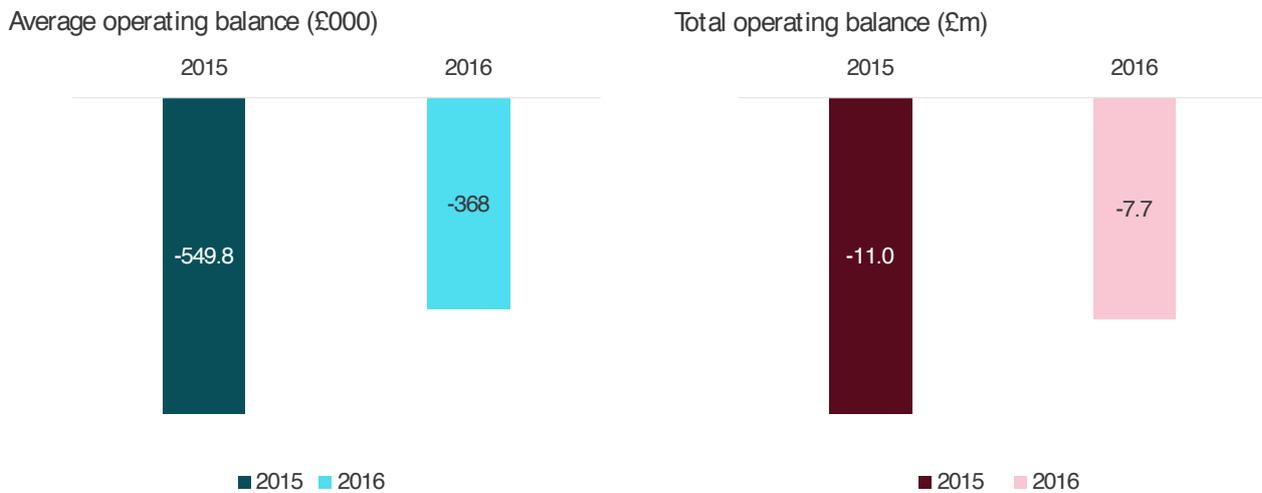
Source: Ofcom/broadcasters. Includes all channels operating in any part of the year

Given the need for local television services to become self-sustaining, as guaranteed funding comes to an end, this overview of income sources demonstrates that the sector as a whole still faces challenges in diversifying income sources. Some new diversification methods have been tried in 2016, such as showing content from other content providers which are willing to provide their content for free or even pay for the additional exposure. These programme

supply arrangements are allowed only under certain conditions, for example, L-DTPS services need to consider the implications of their arrangements on their ability as L-DTPS services to comply with Rule 9.1 of the Broadcasting Code. This rule requires broadcasters to maintain independent editorial control over their programming.

Although the sector continues to show an overall net debt, there was some improvement in

performance in 2016, when the overall sector debt was reduced by 30% (from £11m to £7m) as shown in Figure 2.32. Many services have found ways to increase income and reduce outgoings. Ofcom has helped facilitate cost saving in the sector by being flexible and responsive to requests from local television services, for example when they have requested reductions to statutory programming commitments.

Figure 2.32: Average and total local TV sector operating balances: 2015 - 2016

Source: Ofcom/broadcasters. Includes all channels operating in the respective year. One service was only able to provide income and expenditure figures for the last quarter of 2016 rather than for the full year that they were broadcasting. All other services provided figures for the full year. All figures expressed in real terms.

Channels have contributed new local programming to the UK media landscape, but many continue to find their output commitments challenging

As part of the licence application process, applicants are required to submit proposals for the number of hours of first-run and repeated local programming they plan to broadcast. These commitments are then transposed into the licences of all successful applicants. Ofcom has a minimum expectation of seven hours per week of local news programming for all local channels. Beyond this, applicants are free to decide the level of commitment they wish to provide.¹

Figure 2.33 shows the number of hours of first-run local programming broadcast by local television services in 2016. The average volume of first-run local programming

broadcast by a service fell to 1,625 hours (or 31.2 hours per week) from 1,732 hours (33.3 hours per week) in 2015. However, there was an increase in the average number of first-run local news and current affairs hours. In 2015 the average was 734 hours per year (14.1 per week) compared to 805 hours (15.4 per week) in 2016.

Some services have established partnerships with newspapers and radio broadcasters to jointly produce content that helps meet these programming commitments.

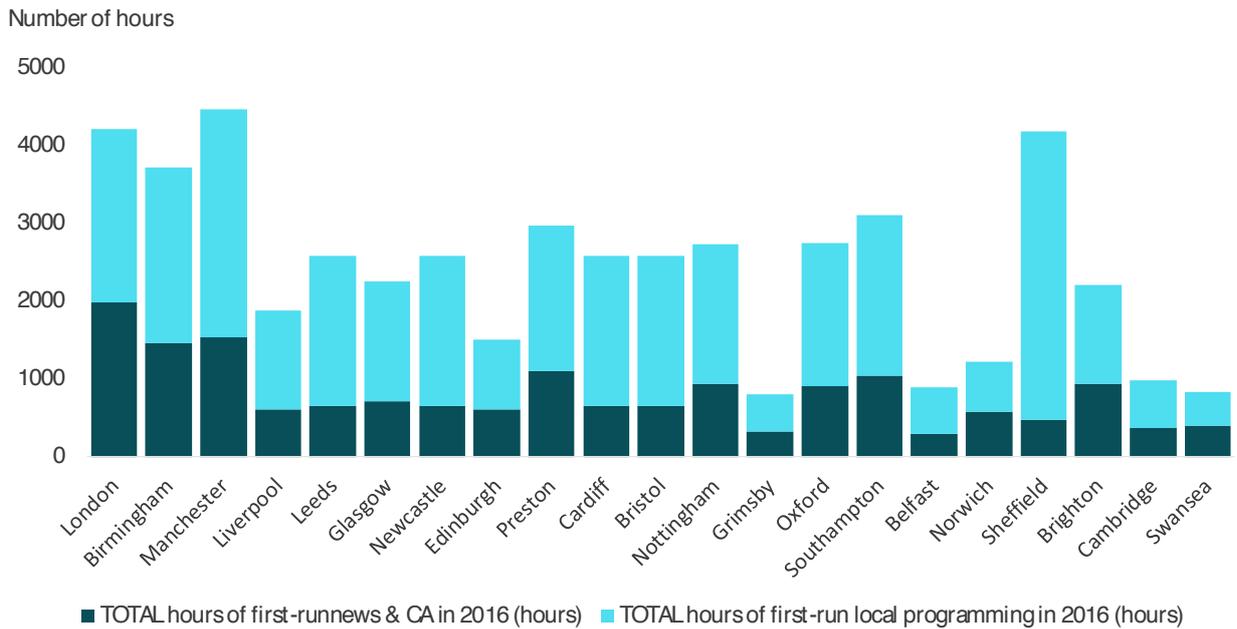
To date most channels have asked to reduce their programming commitments after they started broadcasting. By 31 May 2017, 21 of

the 28 services on air had submitted a programming commitment change request to Ofcom. In most cases this was because the service providers felt unable to deliver the required programming hours and wished to reduce the commitment. Ofcom may agree to such requests so long as it is satisfied that the service continues to meet its obligations as set out in The Local Digital Television Programme Services Order 2012². In total, Ofcom had considered 42 requests to change programming commitments by the end of May 2017 (some channels have submitted more than one change request), of which 30 have been approved.

¹ See paragraph 1.47 of Ofcom's statement Licensing Local Television - How Ofcom would exercise its new powers and duties being proposed by Government, <https://www.ofcom.org.uk/consultations-and-statements/category-1/local-tv>

² <http://www.legislation.gov.uk/ukdsi/2012/9780111518212/contents?view=plain>

Figure 2.33: Hours of first-run local programming on local television services: 2016



Source: Ofcom/broadcasters. Figures calculated based on the hours that were required in 2016 according to the respective licences, with the addition of the average weekly under- or over-delivery reported by the service in its annual local return. Swansea launched 12 July 2016, all other channels broadcast during the full year

The majority of local television channels are available across multiple platforms

In its initial framework for the sector, the Government focused on bringing about local television on DTT, and considered it best to allow services to make their own decisions about non-DTT transmission platforms.¹ As a result, the presence of a local television service on cable or satellite is not covered by the local television licence; if a local television channel wishes to broadcast on Virgin Media or Sky, it

can do so provided it has obtained the relevant Ofcom licence.

Audience figures are important in the local television sector as they can be used to drive advertising revenue. To increase their audiences, many operators have chosen to make their channels available on other platforms, as outlined in Figure 2.34. The table shows that of the services

broadcasting in 2016, their presence on other platforms was similar to 2015; 17 were present on Virgin Media and available online either through streaming or catch-up services. Of these channels, eight were also available on Sky. Sky charges for carriage of local TV services, whilst Virgin Media offers it for free to those local TV services that are not available on Sky.

¹ See paragraphs 29 to 31 of the document Local TV: Making The Vision Happen: Government response to the consultations on the Local TV Framework and Pioneer Locations, dated December 2011, <http://old.culture.gov.uk/consultations/8699.aspx>

Figure 2.34: Platform availability of local TV services broadcasting in 2016

Channel location	Sky	Freesat	Virgin Media	Internet	DIT
London	✓		✓	✓	✓
Birmingham			✓	✓	✓
Manchester					✓
Liverpool			✓	✓	✓
Leeds	✓		✓	✓	✓
Glasgow	✓		✓	✓	✓
Newcastle	✓		✓	✓	✓
Edinburgh	✓		✓	✓	✓
Preston					✓
Cardiff	✓		✓	✓	✓
Bristol	✓		✓	✓	✓
Nottingham	✓		✓	✓	✓
Grimsby			✓	✓	✓
Oxford					✓
Southampton					✓
Belfast			✓	✓	✓
Norwich			✓	✓	✓
Sheffield			✓	✓	✓
Brighton			✓	✓	✓
Cambridge			✓	✓	✓
Swansea			✓	✓	✓

Source: Ofcom/ broadcasters.

An average of over 1.8 million UK households per week (7.0%) watched a local television channel between April 2016 and April 2017

Viewing figures for local television channels in the UK are reported by BARB as a collective 'local TV network' and 'Made TV network'. The exceptions to this are London Live, reported separately, and the STV channels (Glasgow and

Edinburgh) which are reported together as 'STV City'. Our analysis combines all the measured local television channels into a single group to give an overall picture of local television viewing. However, not all local television

services subscribe to BARB audience measurement. The table below outlines the channels that do subscribe and which are included in our analysis.

Figure 2.35: Channels included in BARB reporting, 2016

Channel group	Channels	Start reporting date
Local TV network	Estuary TV	20 April 2015
	Latest TV	20 April 2015
	Notts TV	20 April 2015
	NVTV Belfast	20 April 2015
	Sheffield Live TV	20 April 2015
Made TV network	Made in Bristol	20 April 2015
	Made in Leed	20 April 2015
	Made in Cardiff	20 April 2015
	Made in Newcastle	20 April 2015
	Made in Liverpool (was Bay TV Liverpool)	15 June 2015
	Made in Birmingham	13 June 2016
STV City	STV Glasgow	02 June 2014
	STV Edinburgh	12 January 2015
London Live	London Live	31 March 2014

Source: BARB reported channels across the analysis period of 20 April 2015 to 23 April 2017. No channels ceased reporting across the analysis period. The channel groupings are as of May 2017.

Figure 2.36 shows the absolute number of households which watched any local television service between the launch of the local television network group on 20 April 2015 and 23 April 2017. This includes viewing on digital terrestrial television (i.e. the Freeview platform, whether through YouView, BT TV, TalkTalk, Plusnet or Freeview itself) and on the Sky and Virgin Media platforms. Local television channels can choose to be carried on the Sky and Virgin platforms, although not all of them do so (see Figure 2.34).

Unlike other channels, local television services are not available nationally, and the size of the coverage area for the channels varies by platform. The total population able to receive the reported local television channels is not available in BARB, and therefore we compare their total viewing figures to the entire UK television population. We do, however, know

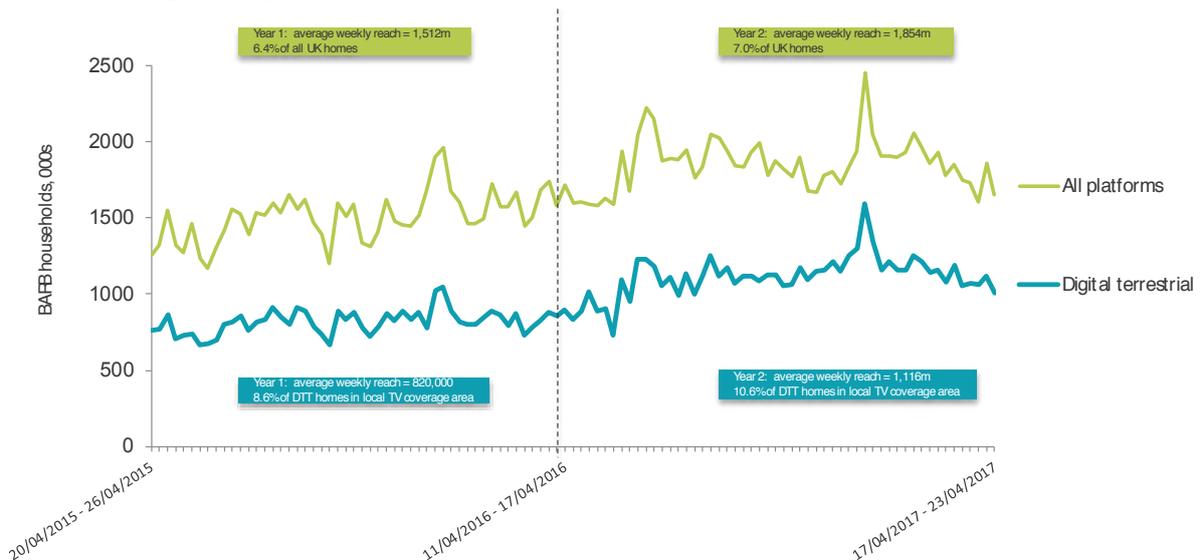
how many people can receive the reported local television channels through DTT, as we have data on the coverage that each transmitter achieves. We estimate that a total of 13.1 million households¹ across the UK could receive a local television service through digital terrestrial reception in 2016. It is not possible for us to estimate the coverage areas for local television for Sky or Virgin, as these vary for each service and region.

Between April 2016 and April 2017, 1.8 million UK households (7.0%) watched at least one of the local television channels for at least three consecutive minutes, on any platform, in an average week. This was up from 1.5 million viewers (5.8%) a week the year before. In 2015 viewing peaked during the Christmas and New Year weeks, at just under two million households. This increased to just under 2.5 million during the Christmas period in 2016. Weekly viewing reached

a high in the same weeks, with just over a million households in the New Year week in 2015 and around 1.6 million households in the Christmas week in 2016. The highest number of households watching any local TV channel for the entire period was during Christmas week in 2016 (26/12/2016- 01/01/2017).

Looking at the analysis period by year, since the local TV channels were first reported by BARB on 20 April 2015, the average weekly reach of the collective local TV channels has increased by 23% on all platforms and by 36% on the DTT platform. When compared to the estimated DTT coverage area of just the BARB measured services (9.5 million households in year one² and 10.5 million households in year two), the average weekly three-minute reach of local TV services through the DTT platform has increased from 8.6% to 10.6% year on year.

Figure 2.36: Average weekly three-minute reach (000s) of local TV stations: April 2015-April 2017



Source: BARB, all UK homes, 20/04/2015 to 23/04/2017. Based on viewing through the reception mode of DTT and all platforms (DTT/DSAT/DCAB and online via TV and peripherals). Reach criteria of 3 minutes or more consecutive viewing. Full weeks used for the correct calculation of averages. The DTT homes weekly reach % in the local TV coverage area has been calculated by using Ofcom estimates of the DTT homes population for the BARB measured local TV channels combined on 20 April 2016 and 20 April 2017.

¹ Not all of these services are reported by BARB.

² The combined estimated household coverage for all services that were BARB measured on 20 April 16 was 9.5 million and on 20 April 2017 it was 10.5 million.

2.3 The TV and audio-visual consumer

This section examines the availability and take-up of digital TV platforms, and trends in television consumption,

including some categories of non-broadcast TV viewing. It also analyses viewers' attitudes to television.

2.3.1 Platform take-up

The proportion of all UK homes that own a TV set able to receive broadcast television was 95.5% in the final quarter of 2016, according to BARB's Establishment Survey. The remaining 4.5%, homes without a TV set, either choose to watch audio-visual content using an internet connection only, or do not use a television, or the television does not receive a broadcast signal.

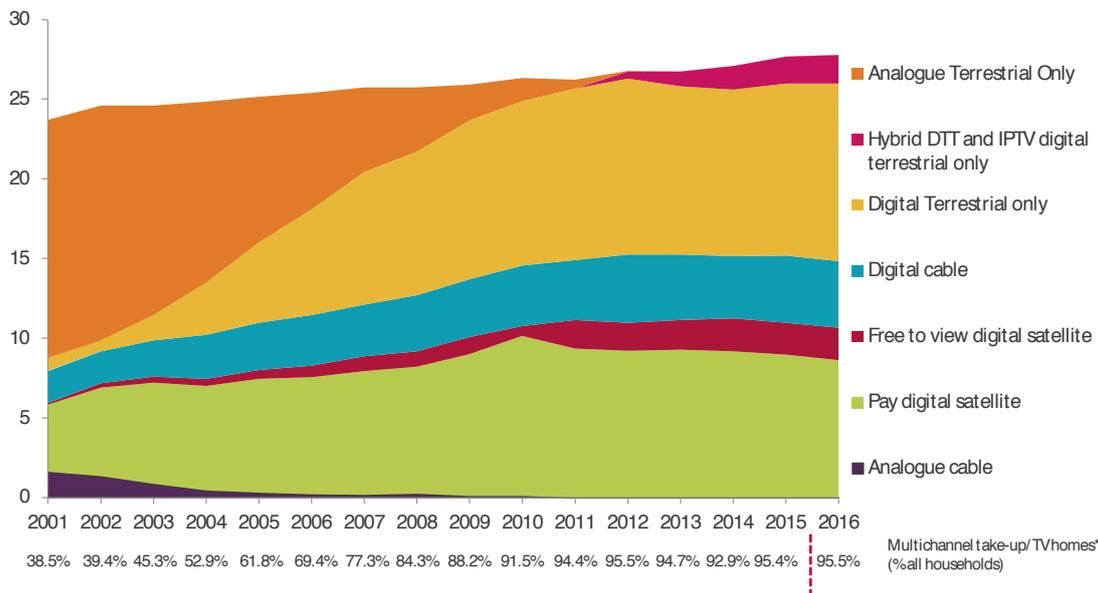
Homes that only have digital terrestrial TV make up the largest

number of homes, reaching the 11 million mark for the first time in 2016. The number of homes with pay-digital satellite has plateaued, following peak take-up in 2010, and while households with free-to-view satellite services such as Freesat have grown slowly over time, take-up has stayed constant over the past few years. The Freeview service has been available through a number of OTT providers since 2012. In Q4 2016, 6.4% of homes had any

one of BT TV/ TalkTalk/ YouView/ PlusNet only (without satellite, cable or other platforms). While only a small proportion of households currently take any of these services, they are gaining ground on the proportion that have free satellite (7.2% of homes in Q4 2016).

In addition to the platform take-up highlighted below, many consumers are subscribing to paid-for VoD services, as outlined in section 2.1.3, on various platforms.

Figure 2.37: Platform take-up: 2001-2016, TV households (m)



Source: BARB Establishment Survey. Household-level data based on all TV sets in homes. Data points are based on Q4 of each year.

Notes: From Q4 2015 BARB changed its methodology and its definition of a TV-set-owning household. The main change was that up to Q4 2015 a home was defined as a TV home if it owned a TV set which had been used to watch TV programmes in the last six months. Since Q4 2015 the claimed usage element was removed, which led to an increase in the TV set homes population. BARB did not re-state the TV homes population before the methodology change, so comparisons with previous data should be made with caution.

*Digital switchover was completed across the UK in October 2012. Data from 2013 therefore refer to TV households as a % of all households.

Digital terrestrial TV = digital TV through an aerial (this could include Freeview, BT TV/ TalkTalk/ YouView/ PlusNet) and not through DSAT/DCAB or other platforms.

IPTV digital terrestrial only = receives digital terrestrial TV through any of BT TV/ TalkTalk/ YouView (but may have Freeview-integrated TV) and not DSAT /DCAB/ other platforms.

Households with Freeview TV only have an older age profile than those with satellite or cable TV

Figure 2.38 compares households that only have Freeview television services with those that have satellite or cable. In terms of age profile, households with satellite or cable television services are more likely to be younger compared to Freeview-only homes. There are also differences according to socio-economic group; Freeview-only

homes have a greater proportion of DE consumers compared to both the overall UK population and households with satellite or cable TV services. These demographic differences influence the amount of time households with different TV platforms spend watching TV each day (as, for example, older people are more likely to be

Freeview-only and older people also spend more time on average watching television): Freeview-only households watch 15 minutes more each day compared to households with satellite TV, and 25 minutes more than those with cable TV.

Figure 2.38: Platform demographics by age, socio-economic group and viewing hours



Source: Platform profile: Ofcom Technology Tracker H1 2017. Average minutes: BARB 2016 data

Note: Arrows indicate any significant differences at the 95% confidence level between UK population and the TV platform

<p>Smart TV:</p> <p>‘Smart TV’ refers to a stand-alone television set with inbuilt internet functionality. Users connect to the internet via a broadband router or modem. Smart TVs are produced by consumer electronics manufacturers including Samsung, Sony, Panasonic and LG. The</p>	<p>definition does not include television sets connected to the internet via a third-party device such as a set-top box, a games console or a laptop/PC.</p> <p>Connected TV:</p> <p>‘Connected TV’ refers to a television that is broadband-enabled to allow viewers to</p>	<p>access internet content. This includes smart TVs as well as a TV connected by an external device such as a set-top box, games console, tablet, Blu-ray/DVD player or internet-connected dongle.</p>
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The number of homes that have a smart TV has increased three-fold in the past three years

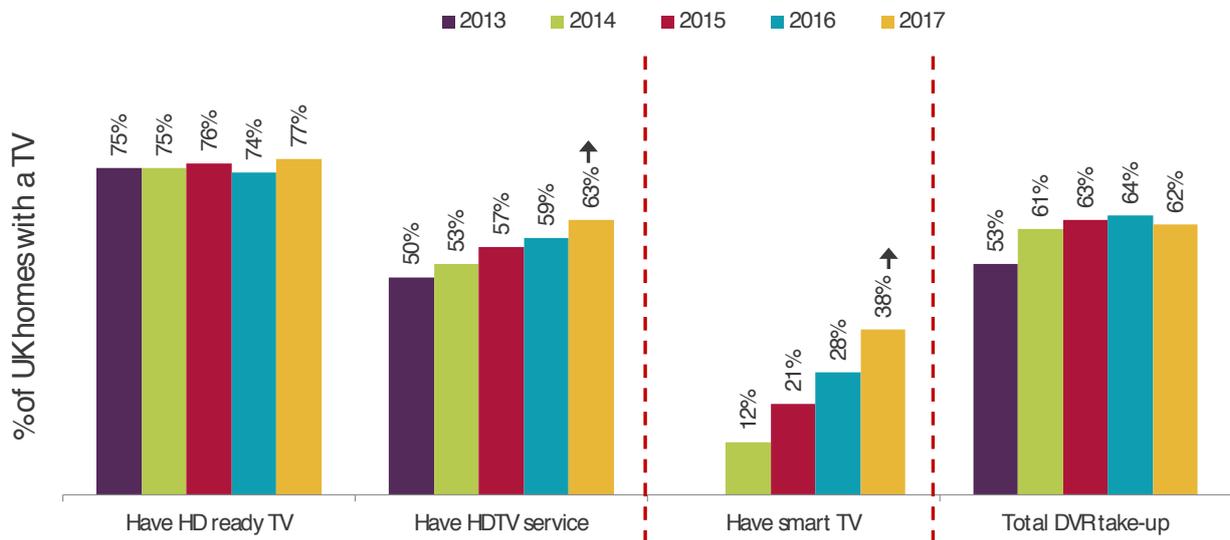
Although around three-quarters of homes have had TV sets capable of screening high definition programmes for a number of years, it is only in the past couple of years that many have started to take advantage of this; 63% of households now claim they have access to HDTV programmes compared to 50% in 2013. As HDTV

channels are now available through all television platforms, including Freeview, it may be that many households are receiving HDTV services but are not aware of it.

Ownership of digital video recorders (DVRs), devices that allow viewers to record and store content as well as pausing live TV, has plateaued since 2014: 62% of households

now have one¹. This is likely to be influenced by the growth in consumption of catch-up TV services as well as online video services as these are instant access services that don't rely on DVR functionality. In line with this, smart TVs are increasing in popularity; 38% of households now own at least one, three times more than in 2014.

Figure 2.39: Take-up of HDTV sets and HD services, smart TVs and DVRs



Source: Ofcom Technology Tracker, data as at Q1 2014, then H1 2015-2017

Base: All adults aged 16+ with a TV in the household: 2013 (3661), 2014 (3635), 2015 (3616), 2016 (3606), 2017 (3564)

Significance testing: Arrows indicate any significant differences at the 99% confidence level between UK 2016 and UK 2017.

QH3 (QH53): Is the main TV in your household an HDTV set or HD ready?/ QH4 (QH54): Although you have an HDTV-ready set, to actually watch TV channels and programmes that are broadcast in high definition, you need an HD set-top box or a TV with built-in HDTV receiver. For the main TV set, does your household have an HDTV service- from either Sky, Virgin Media, Freesat or Freeview?/ QH17 (QH62): Are any of your TV sets 'smart TVs'?

QH11A/B (QR1A/H): Does your household have Sky+ / Sky Q?/ QH11C (QR1B): Does your household have Virgin TiVo (pronounced tee-vo) or V+?/ QH11D/E/G (QR1C/D/E): Does your Freesat/ Freeview box of Freeview TV/ broadband TV service allow you to record and store TV programmes, and also pause and rewind live TV programmes?

¹ Data that has been used for this analysis is based on adults 16+ and where the DVR take-up is based on claimed availability of DVR devices in home, on a fieldwork period of January to February of each year. The data from our Technology Tracker is different to BARB data which is based on individuals 4+ from BARB's viewing panel taking account of every TV set in home and as an average across each year. Data therefore are not directly comparable because of the different methodologies applied and the different sample bases used.

An estimated two-thirds of households have a connected TV

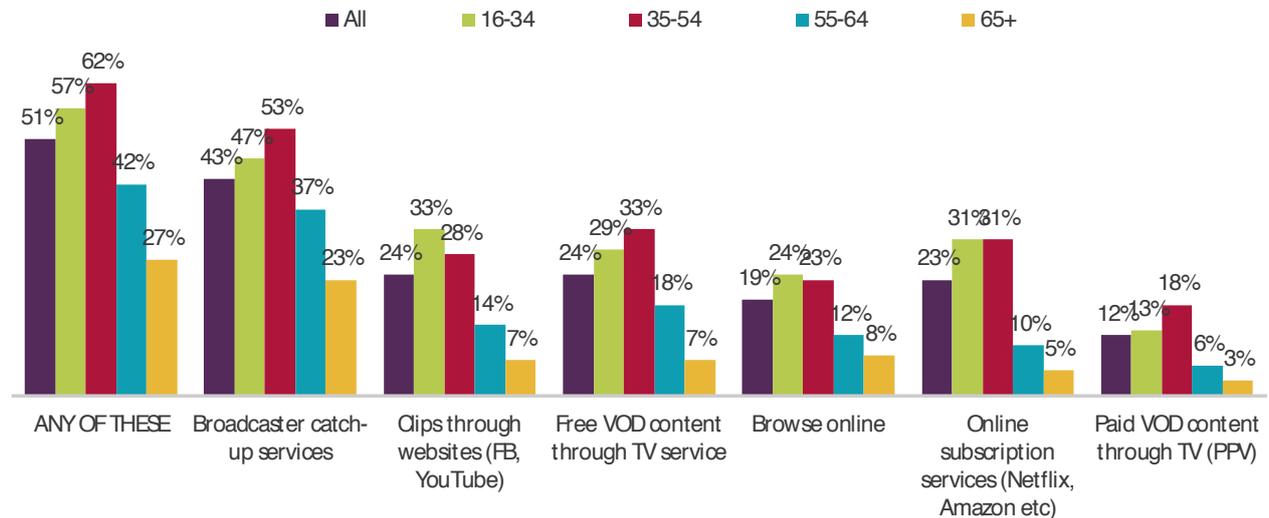
In addition to being able to access the internet through a smart TV, consumers can connect their TV to the internet using other means. As detailed above, 38% of homes have at least one smart TV; a similar proportion of households have connected their TV to the internet using another type of device (36%).

Figure 2.40 shows some of the activities most commonly undertaken by adults using their connected TV. Half of all adults (51%) have undertaken any internet activity on their TV, with 35-54 year olds the most likely to do this (62%).

Around four in ten adults (43%) with a connected TV watch TV programmes or films through

a catch-up service provided by a broadcaster. Of these, three-quarters of adults (73%) said they did this to catch up on a programme/film which they had missed when it was originally shown. Paid-for or subscription service content is more popular among those aged under 65 than those aged 65+ (31% vs. 10%).

Figure 2.40: Activities undertaken on a connected TV, by age



Source: Ofcom Media Tracker 2016.

Base: All respondents in 2015 (2,069); aged 16-34 (596), 35-54 (640), 55-64 (342), 65+ (491).

Q7/ Q9C/ Q10C/ Q11C/ Q13- And which, if any of these devices have been connected to your home broadband service as well as a TV set in the home in the last 12 months to view something on the TV screen?

Q14A-H/ Q15 – Which, if any, of these activities have you used your device for in the last 12 months when connected to a TV?

2.3.2 Broadcast TV viewing trends

Broadcast TV viewing

BARB analysis is based on viewing of scheduled TV programmes such as those listed in TV listings magazines or on electronic programme guides (EPG) on TV sets. It includes time-shifted viewing of these programmes. Together these make up the official industry measure of viewing, on which our analysis is based. Viewing is reported for people aged 4 and above.

Time-shifted viewing

'Time-shifted' viewing is defined by BARB as viewing of programmes recorded and subsequently played back on a television set within seven days of live broadcast, as well as viewing after pausing or rewinding live TV. Recording devices included in BARB analysis include video cassette recorders (VCR); DVD recorders (which store programmes on writable DVDs); digital video recorders

(DVRs) which use a hard disk to store programmes chosen from an electronic programme guide, and combination devices (which use a combination of internal hard disk and removable DVDs to store programmes).

Viewing any catch-up TV player services through the television set is also captured under 'time-shifted viewing' if the content has been broadcast live in the past seven days. This includes catch-up player services accessed through apps on smart TVs and games consoles, and viewing on any device such as laptops, personal computers or tablets, so long as they are connected to the television set.

Viewing outside the seven-day window, viewing catch-up services on devices that are not connected to the TV set, and video on-demand (VoD) services (such as Amazon Instant Video and Netflix) which have not been scheduled

on a television channel, are not reported as time-shifted viewing.

Non-industry standard data

Besides the industry standard data sets, BARB also makes available other data that it collects. One of these is time-shifted viewing between eight and 28 days after the initial broadcast. Another is unmatched data which refers to activities when the TV set is in use but the content cannot be audio-matched or otherwise identified. This would include the TV being used for gaming, viewing DVDs/box-sets/archives, subscription video-on-demand (SVoD), time-shifted viewing beyond 28 days, apps on smart TVs and navigation around EPG guides where there is no in-picture live content. Unmatched viewing has been reported by BARB since July 2013.

We include some analysis of non-standard data to put the measured TV viewing analysis into context.

Time spent watching broadcast TV continued to fall but the pace of decline has eased, and weekly reach remains high

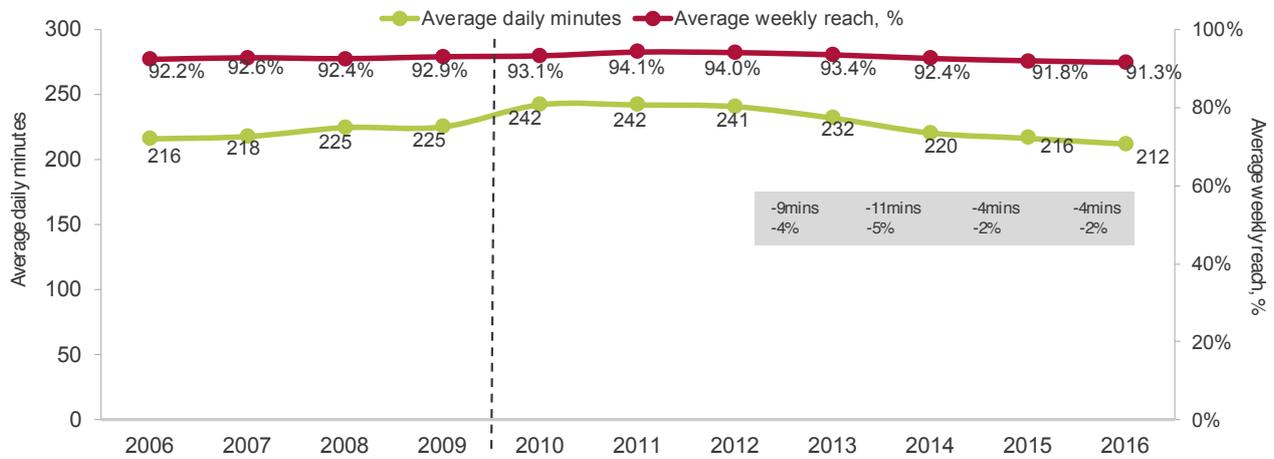
The average time spent watching TV in 2016 was 3 hours 32 minutes a day, four minutes less than in 2015. This was a slowing of the decline which began in 2012, when daily viewing time fell

after holding steady at around four hours a day since 2010.

The majority of people continue to tune in to TV. Ninety-one per cent of the TV population watched TV

at least once in a typical week in 2016, broadly the same as a decade ago. The year-on-year decline was slightly less than the fall between 2014 and 2015, but weekly reach has dipped each year since 2012.

Figure 2.41: Average weekly reach and average daily minutes of total TV: 2006-2016



Source: BARB, individuals 4+, network, total TV. Reach criteria: 15+ consecutive minutes of viewing at least once in the average week. Full weeks used for the correct calculation of averages.

Note: New BARB panel introduced 1 Jan 2010. Therefore pre- and post-panel change data must be treated with some caution (see dotted line).

Viewing differences by age have widened in the past five years

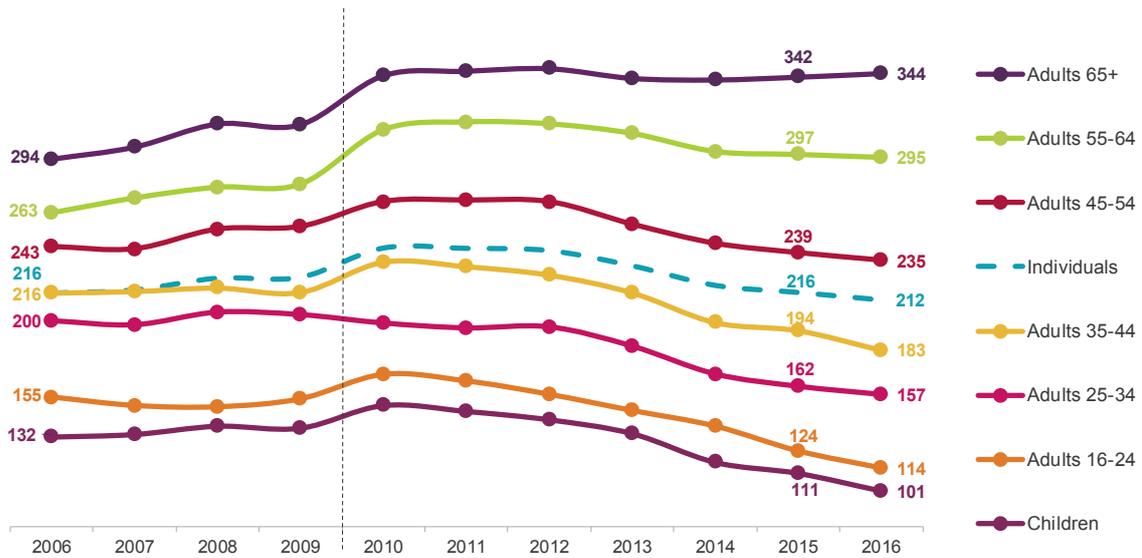
In five years, average viewing time has dropped markedly; people are watching 30 minutes (12%) less TV a day than they were in 2011.

Viewing fell across almost all age groups across this period, but the decline has been greatest, proportionally, among adults aged 16-24 and children aged 4-15, for whom viewing dropped by around a third. As the heaviest viewers to TV generally, viewing held stable among the over-64s.

Compared to a decade ago, average daily viewing across the population as a whole in 2016 was just four minutes less than in 2006. But behind the average, this apparent resilience in television viewing is driven by older audiences. The profile of TV viewers has become older with adults 55+ now making up just under half (48%) of the total TV audience compared to 38% in 2006. Adults aged 65 and over watched an average of 344 minutes a day in 2016, up from 294 in 2006; 16-24s watched an average of 114 minutes compared to 155 in 2006.

More recently, in 2016, the biggest proportional falls in daily viewing time compared to 2015 were among children and 16-24s (by 9% and 8% respectively). But while the rate of annual decline in viewing among 16-24 year olds slowed for the first time since 2012, the proportional decline for children increased, after slowing between 2014 and 2015. The only other age group to have an accelerated decline in 2016, compared to a slowing or constant decline, were adults aged 35-44. In contrast, viewing among adults 65 and over increased by two minutes a day.

Figure 2.42: Average daily minutes to total TV, by age group: 2006-2016



Source: BARB, network. Average minutes of viewing per person per day. New BARB panel introduced 1 Jan 2010. As a result pre- and post-panel change data must be treated with some caution.

TV reaches 91% of the TV population in a typical week, but fewer people in the youngest groups

Nine in ten people watch TV at least once in a typical week. By age group, weekly reach is higher among the older TV population than among younger age groups (under 35).

Weekly reach ranged from 80% among 16-24s to 97% or more among 45s and over in 2016. Year on year, the proportion of 16-24s and children who tune in weekly has fallen, while it has remained the

same for all other age groups. Like time spent viewing, weekly reach has fallen among the under-65 age groups since 2011, with the steepest decline among 16-24s and children.

Figure 2.43: Average weekly reach of total broadcast TV, by age group: 2006-2016

	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Individuals 4+	92%	93%	92%	93%	93%	94%	94%	93%	92%	92%	91%
Children (4-15)	89%	91%	90%	91%	90%	92%	92%	91%	88%	87%	86%
Adults 16-24	83%	83%	82%	83%	85%	87%	86%	85%	83%	82%	80%
Adults 25-34	92%	92%	91%	92%	91%	93%	93%	92%	90%	89%	89%
Adults 35-44	94%	94%	94%	94%	95%	95%	95%	94%	94%	93%	93%
Adults 45-54	94%	95%	95%	96%	96%	96%	96%	96%	95%	95%	95%
Adults 55-64	95%	96%	96%	96%	96%	97%	97%	97%	96%	96%	96%
Adults 65+	96%	96%	96%	96%	97%	97%	97%	97%	97%	97%	97%

Source: BARB, network, total TV. Reach criteria: 15+ minutes of consecutive viewing. A new BARB panel was introduced in 2010 therefore pre and post panel change must be treated with some caution.

The combined reach of the main five PSB channels is larger than the combined reach of all non-PSB owned channels in the UK

Despite increased competition from other broadcast channels on TV, and other sources of programmes and films beyond the TV, eight in ten people continued to watch at least one of the five PSB channels in a typical week in 2016. This was higher than the combined weekly reach of all channels that were not PSB-owned ('others'), and higher than the collective reach of the PSB portfolio channels (which include the main PSB '+1' channels and channels such as BBC Four, ITV2 and E4). In ten years, the weekly reach of the main PSB channels has decreased by only 6pp, although

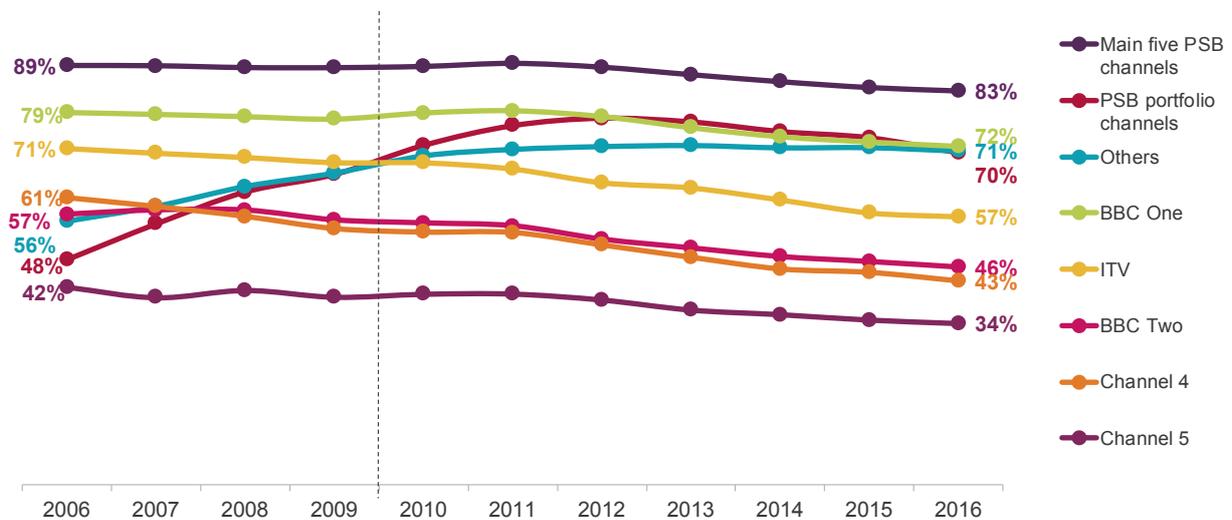
this is higher than the fall in weekly reach to TV as a whole (1pp).

With an increasing selection of non-terrestrial channels available to consumers, viewing of the PSB portfolio channels and 'others' has grown progressively over time. In 2009, as more PSB portfolio channels were launched, weekly reach of the PSB portfolio group of channels matched that of the 'others' group, and then exceeded it the following year. After a peak weekly reach of 77% in 2012 and 2013, reach of the PSB portfolios fell between 2-3pp each year to

70% in 2016. The weekly reach of 'others' has held steady since 2011, at 71%. In 2016, a higher proportion of the TV population watched BBC One than either of the PSB portfolio or 'others' channel groups.

Among the main PSB channels, in the last decade the biggest losses in weekly viewing were to Channel 4 and ITV. The most stable, comparatively, were BBC One and Channel 5. More recently, weekly reach for each main PSB channel held steady or dipped slightly year on year.

Figure 2.44: Average weekly TV reach, by channel: 2006-2016



Source: BARB, individuals 4+, Network, Reach criteria: 15+ minutes of consecutive viewing.

Note: A new BARB panel was introduced 1 Jan 2010. Therefore pre- and post-panel change data must be compared with some caution. Note: Following digital switchover in Wales in 2010 S4C ceased to carry Channel 4 content. S4C is therefore included in the Channel 4 figure in and before 2009 but not from 2010 onwards. S4C (inc HD) weekly reach in 2016 was 0.4% (all homes). The main five PSB channels include viewing to their HD channel variants but exclude viewing to their +1 channels (which are part of the PSB portfolio group). 'Others' = all channels apart from the main five PSBs and their portfolio channels.

The main five PSBs continue to retain a majority share of viewing

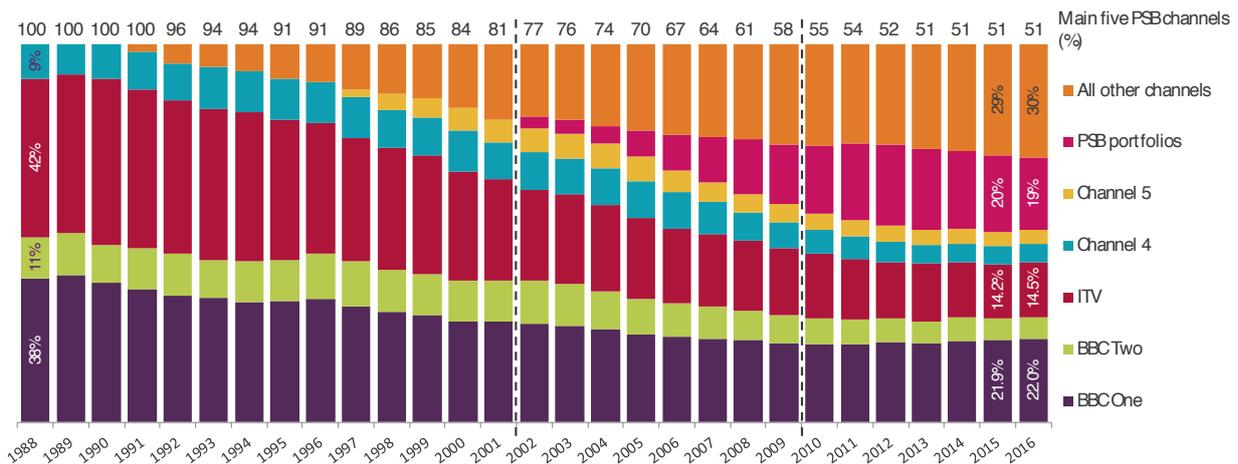
From five channels in 1988 (BBC One, BBC Two, ITV, Channel 4 and S4C) to 328 BARB-reported channels in 2016, consumer choice on conventional TV has expanded greatly. However, the main five PSB channels continued to retain over half of the total broadcast TV audience in 2016, maintaining their 51% share over the past four years. When their portfolio of channels is added, the PSB broadcasters accounted for over two-thirds of viewing.

The year-on-year share of viewing to BBC One, BBC Two, Channel 4 and Channel 5 has been stable, as it has been over the past few years. In February 2016, BBC Three ceased as a broadcast TV channel, reducing the BBC portfolio share from 5.2% in 2015 to 4.3% in 2016. The shares of the ITV and Channel 4 portfolio channels also dipped year on year, but this fall was partially offset by small growth in the Channel 5 portfolio share.

The overall PSB portfolio loss in share was 1pp, accounting for 19% of TV viewing in 2016.

As shown in Figure 2.45, ten of the PSB portfolio channels were in the top 20 most-watched channels (ranked by share) in 2016, along with the main five PSBs.

Figure 2.45: Channel shares in all homes: 1988-2016



Source: BARB, TAM JICTAR and Ofcom estimates, individuals 4+.

Notes: new BARB panels were introduced in 2002 and 2010, therefore pre- and post-panel change data must be compared some with caution (see dotted lines); following digital switchover in Wales in 2010 S4C ceased to carry Channel 4 content, S4C is therefore included in the Channel 4 figure in and before 2009 but not from 2010 onwards (S4C share in 2016 = 0.1% of all homes); the main five PSB channels include viewing to their HD channel variants but exclude viewing to their +1 channels.

The top 20 channels reflect the older profile of traditional TV

Figure 2.46 plots the age and socio-economic (SEG)¹ profile of the 20 most-watched channels in 2016, relative to the 35+ age and ABC1 SEG profile of all viewers to total TV. It also shows the share of each channel, depicted by the size of the bubbles. The profile of a channel gives an indication of its target audience, and for commercial channels, this is used to sell advertising.

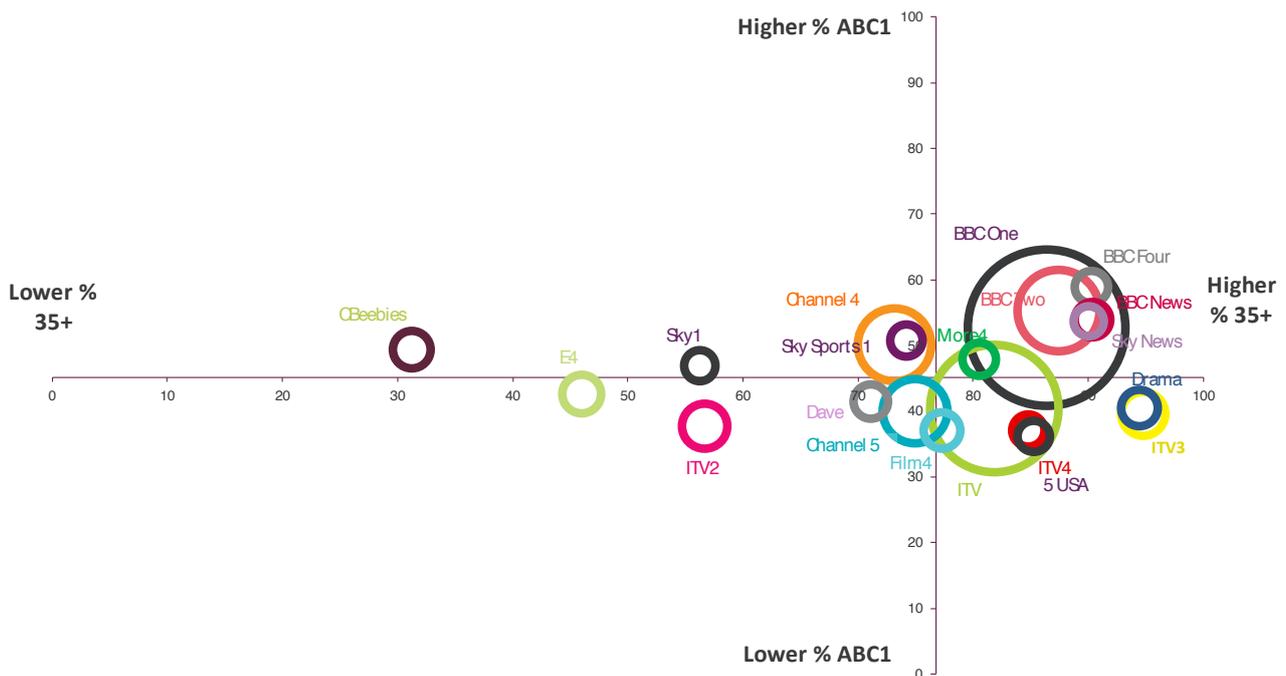
Reflecting the older profile of TV overall, most of the top 20 channels in 2016 had audiences that were older or the same as the average. This was particularly the case for those channels with the largest share of viewing, including BBC One, ITV and BBC Two. Apart from CBeebies (the dedicated children’s channel for 0-6 year olds from the BBC), the channel with the youngest profile was E4 (43% of its audience was aged under 35) while the channels with the oldest profile were ITV3 and Drama (95%

and 94% of whose audiences respectively were aged 35 and over).

Channels from the BBC, Sky and Channel 4 attracted higher proportions of ABC1 audiences than TV generally (45%). Of the top 20 most-watched channels, BBC Four had the biggest ABC1 profile, at 59%.

Reflecting their greater reach, all the top 20 channels apart from Sky One and Sky Sports 1 are available without a pay-TV subscription.

Figure 2.46: Age and socio-economic audience profile of the 20 most-viewed channels: 2016



Source: BARB/TRP Research. Individuals 4+. Based on the top 20 channels ranked by share, excluding individually reported +1 channels. Size of bubble relates to share among individuals 4+. Profile based on age: % 35+, social: % ABC1 individuals. Axes cross at the average age/SEG profile of Total TV. Includes HD variants where applicable, excludes +1 variants.

¹ A classification of household social status based on the occupation of the chief income earner. BARB reports the following social grades: AB – higher (A) or intermediate (B) managerial, administrative or professional; C1 – supervisory or clerical and junior managerial, administrative or professional; C2 – skilled manual workers; D – semi-skilled and unskilled workers; E – state pensioners, casual or lowest grade workers;

Growth in time-shifted viewing has slowed, particularly in the last three years

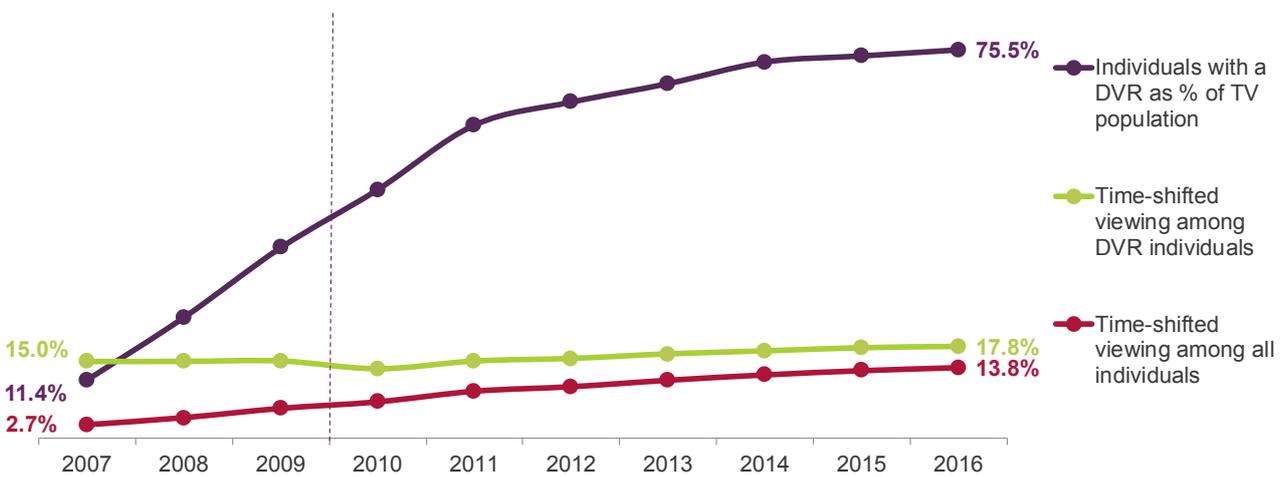
In 2016, the proportion of time-shifted viewing that takes place within seven days of broadcast increased slightly (to 13.8%) but was the smallest annual growth since 2007. Even with increased adoption of DVRs and devices such as smart TVs and games consoles, which offer access to catch-up services without the need for a recording device,

this trend of slowing growth has been apparent among the general population in the past three years.

DVR take-up continued to increase, to reach 75.5% of the TV population in 2016¹, but take-up has grown at a much faster rate than the increase in time-shifted viewing among people who own a DVR. The large increases in DVR ownership has not translated

into a radical shift in DVR individuals' viewing habits; the majority of their viewing time (82.2%) is still to live TV and is similar to the proportion of their viewing time in 2006 (85.0%). The growth in the proportion of viewing that is time-shifted among those with DVRs has been slower in the past three years than in earlier years.

Figure 2.47: DVR take-up and time-shifted viewing: all individuals, and individuals in DVR homes: 2007-2016



Source: BARB, network, individuals 4+. New BARB panel introduced 1 Jan 2010. Therefore pre- and post-panel change data must be treated with some caution. Based on viewing up to seven days after initial transmission.

¹ Data that has been used for this analysis is based on individuals 4+ from BARB's viewing panel taking account of every TV set in home and as an average across each year. This is to align the time-shifted viewing analysis to a comparable base. The data from BARB is different to our Technology Tracker data which is based on adults 16+ and where the DVR take-up is based on claimed availability of DVR devices in home, on a fieldwork period of January to February of each year. Data therefore are not directly comparable because of the different methodologies applied on different sample bases.

Live viewing minutes down, but not compensated by increase in time-shifted viewing

The analysis above focuses on the proportion of viewing that is time-shifted (up to seven days), rather than the absolute minutes of time-shifted viewing. Figure 2.48 breaks down the types of viewing that take place on the TV set in minutes, including the industry

standard datasets of live viewing, and viewing that takes place up to seven days after transmission (boxed in dotted lines), as well as non-industry standard data. Focusing on the seven-day industry data, it shows that live TV viewing time fell between 2015 and 2016,

continuing the trend of the past three years (and beyond)¹. But while the proportion attributed to seven-day time-shifted viewing increased slightly year on year (+0.6pp to 13.8% in the chart above), absolute time-shifted viewing minutes was steady at 29 minutes a day in 2016.

The 2016 decline in viewing may have been replaced by other activities on the TV set

Earlier in this section we looked at the trend in daily viewing time, noting particular declines since 2012. Besides the industry standard data sets, BARB also makes available other data that it collects. One of these is time-shifted viewing between eight and 28 days after the initial broadcast. Another is unmatched data which refers to activities when the TV set is in use but the content cannot be matched to broadcast TV programmes and films (this can include subscription VoD like Netflix, apps on smart TVs and gaming). Both of these

were introduced in July 2013. These additional data allow us to identify what type of viewing or activities might be driving the decline in seven-day viewing.

In 2016 there were 35 minutes of unmatched TV activity time each day, on top of the 3 hours 32 minutes seven-day industry data from BARB. The four-minute loss to live TV between 2015 and 2016 was not offset by increases in either seven-day or eight-28 time-shifted viewing, both of which stayed the same, but the lost minutes

were offset by a corresponding increase in unmatched viewing (+5 minutes). This suggests that all of the decline in measured viewing may have migrated to other activities on the TV set rather than to other screens. The data also show that in the past three years all TV screen time has stayed constant, at 251 to 252 minutes, with a growing proportion of this to unmatched viewing. All of this indicates that it is not that people are not watching less on the TV set, but that what is being watched on the TV set appears to be changing.

¹ Live viewing minutes has fallen in each year since 2010 when it was 225 minutes a day.

Figure 2.48: Average daily minutes of TV screen time, total TV, by activity type: 2014-2016



Source: BARB, individuals 4+.

*Note: Unmatched viewing = TV in use but content cannot be audio-matched or otherwise identified. Includes gaming, viewing to DVDs/ box sets/ archives, SVoD, time-shifted viewing beyond 28 days, apps on smart TVs and navigation around EPG guides where there is no in-picture broadcast content. Audio-matched digital radio stations (which accounted for 2 minutes of viewing time per person a day in 2016) are excluded. Unmatched viewing has been reported by BARB since July 2013. Dotted line marks difference between BARB standard industry data and the eight-28 day time-shifted and unmatched viewing.

Connected TV is the most-used device for unmatched content on the TV screen, but there are differences among the youngest and oldest adults

An additional reporting enhancement from BARB in December 2015 allows us to analyse the devices used for measured and non-measured TV. It can provide clues about the types of activity people might be using their TV screen for, apart from what is known from the industry standard data.

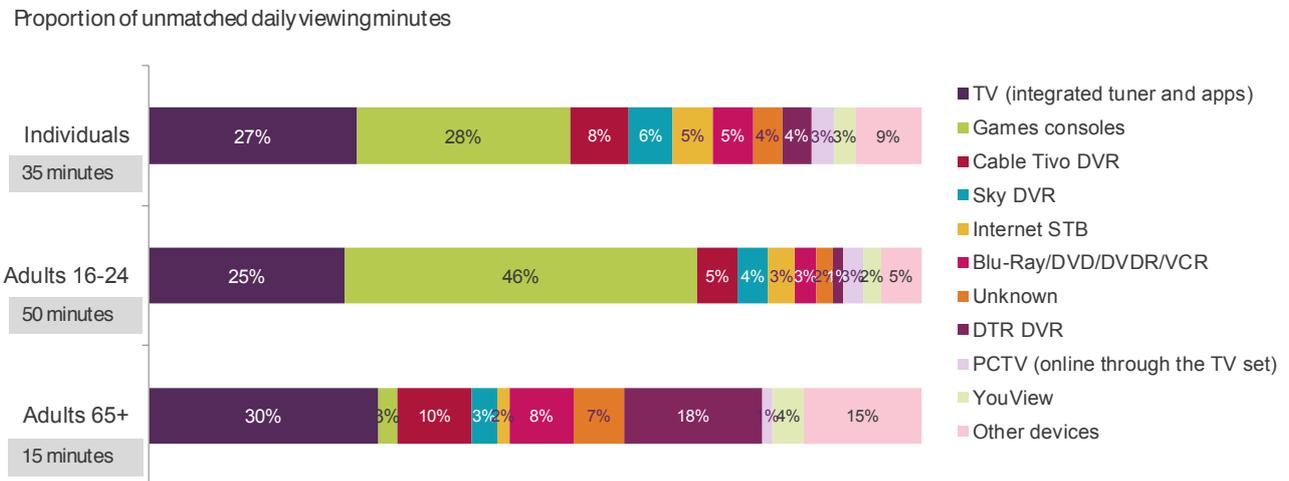
Of the 35 minutes a day spent on unmatched activity among all people, the largest proportion came from the TV set (such as using apps) at nine minutes a day, and from games consoles at ten minutes a day (this might be gaming or on-demand content accessed through an internet connection). Together, they make up a combined 55% of

unmatched TV screen time. The proportion of time spent on the TV set was lower for young adults than for the general population, while the share of time attributed to games consoles was markedly higher, making up almost half of the 50 minutes a day that 16-24s spend on unknown activities on the TV set. The spread of use of the remaining devices, such as Sky DVR, were broadly similar between all individuals and young adults.

Adults 65 and over spend the least amount of time on unmatched activities, at 15 minutes per day. Their use of the TV set accounted for a slightly higher proportion of their time than among the 16-24

year olds and the average, and made up the largest share of their unmatched TV screen time. Their use of the TiVo DVR (used by Virgin Media pay-TV customers) was also above average, at 10%, but the second-largest proportion of their unmatched screen time was spent using digital TV recorders (DTRs) (18%). ‘Other’ devices, which includes other types of DVRs and set-top boxes, made up 15% of their viewing time; Freesat (3%), cable PVRs and set-top boxes (4% combined) accounted for most of this. over-64s spent on average just 3% of their unmatched TV screen time on games consoles (i.e. an average of about 22 seconds a day).

Figure 2.49: Unmatched activity on the TV set, by device used: 2016



Source: BARB. Unmatched viewing by device use, based on average daily minutes of viewing in 2016. Unmatched: TV in use but content cannot be audio-matched or otherwise identified. Includes gaming, viewing DVDs/ box sets/archives, SVoD, time-shifted viewing beyond 28 days, apps on smart TVs and navigation around EPG guides where there is no in-picture broadcast content. Chart figures may not add up due to rounding.

Live broadcast TV accounts for 80% of programme viewing time across all screens, but has diminished over time

There is currently no industry standard measure of viewing to all programmes and films across all devices beyond the TV set. We therefore use a range of sources (such as our Digital Day research in previous years, and industry estimates) to understand consumption across live, recorded and on-demand (catch-up and paid) content.

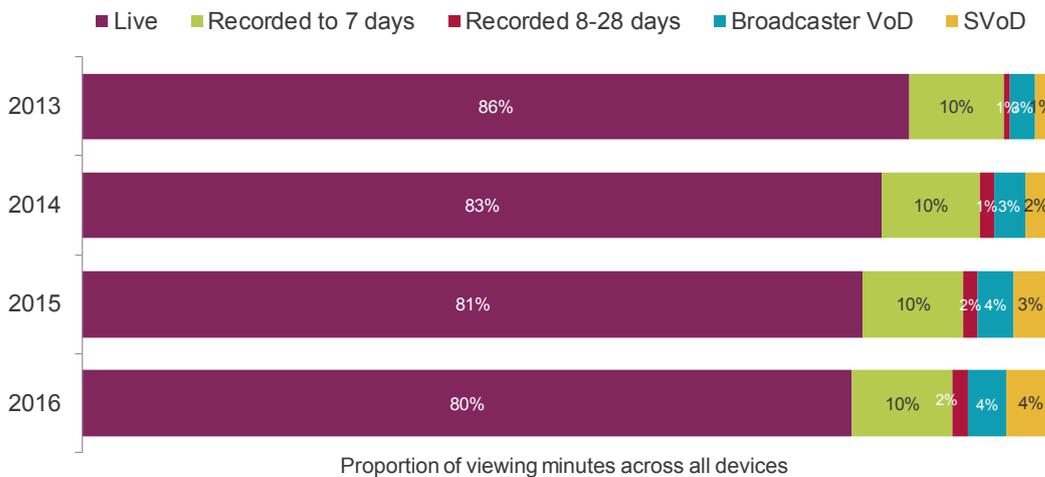
3 Reasons' estimates of legal, long-form viewing across all devices show that people spend most of

their viewing time watching live TV (80%) with recorded viewing (12%) accounting for more of their time than on-demand (8%).

With people connected to the internet more than ever, and take-up and use of video on-demand (VoD) services growing, time spent watching live TV has fallen from an estimated 92% of viewing in 2010. At the same time, the proportion of time spent watching recorded programmes has been flat over the past four years, while on-demand

viewing has doubled, although from a low base. Of VoD viewing, an equal proportion of time was spent watching on-demand programming from broadcasters across all platforms and from subscription video on demand (SVoD) providers in 2016. In the last few years, SVoD (e.g. Netflix, Amazon Prime) has grown at a faster rate than broadcasters' VoD (e.g. BBC iPlayer, ITV Player, Sky on demand).

Figure 2.50: Proportion of all AV viewing: live, DVR and VoD: 2013-2016



Source: 3 Reasons estimates (including BARB data). 8-28 day time-shifted viewing was introduced by BARB in July 2013. Base: All devices, legal, long-form professional AV content, Live includes simulcast. Excludes physical consumption (e.g. DVDs), short-form, pirated and adult content.

Broadcaster VoD = all broadcaster on-demand including catch-up and archive across all platforms (e.g. Sky and Netflix).

SVoD = on demand from Netflix, Amazon Prime Instant Video, non-broadcast VoD from Now TV and other SVoD providers.

2.3.3 Consumers' attitudes to television

More than half of adult viewers feel that the quality of programmes has stayed the same over the past year

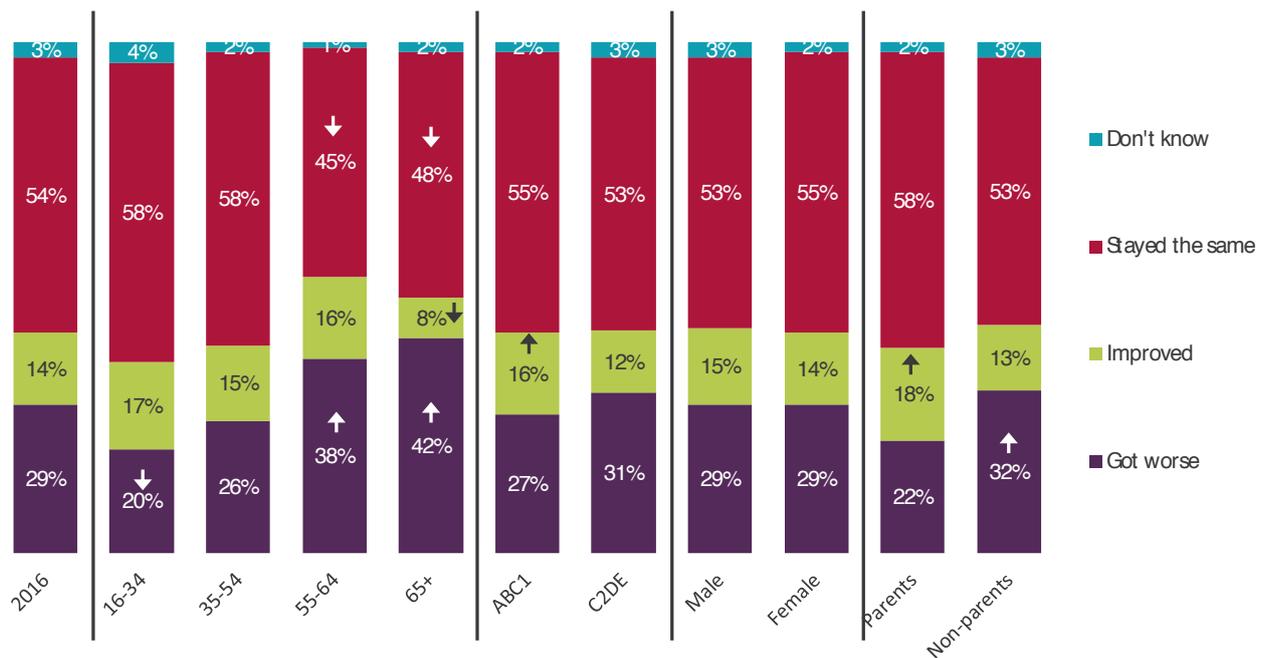
Ofcom's annual PSB report¹ found that, in 2016, over three-quarters (78%) of regular or occasional viewers of any PSB channel² claimed to be either very or quite satisfied with PSB broadcasting, an improvement of 5pp since 2015. This is supported by findings from Ofcom's 2016 Media Tracker which showed that more than half of adult viewers in the UK (54%) felt that the

quality of television programmes has stayed the same over the past 12 months and 14% felt there had been some improvement. However, three in ten adults (29%) said they felt that quality had worsened.

As shown in Figure 2.51, there was a split between the youngest and the oldest viewers as to whether programme quality had improved

or worsened. The youngest viewers (16-34) were the least likely of all age groups to say that programme quality had got worse (20%) compared to 42% of viewers over 65. Viewers in the ABC1 socio-economic group were more likely than those in the C2DE group to say that the quality of programmes had improved (16% vs. 12%).

Figure 2.51: Opinion on the quality of programmes over the past 12 months (% of adults with a TV)



Source: Ofcom Media Tracker, 2016.

Q20 - Do you feel that over the past year television programmes have improved, got worse or stayed about the same?

Base: All with any TV sets in 2016 (2022); aged 16-34 (573); 35-54 (628); 55-64 (336); 65+ (485); ABC1 (1038); C2DE (983); male (950); female (1072); parents (576); non-parents (1446). Significance testing shows any difference between any age group and all adults in 2016, between socio-economic groups, by gender and between parents and non-parents in 2016

¹ Ofcom PSB Annual Report 2017, <https://www.ofcom.org.uk/tv-radio-and-on-demand/information-for-industry/public-service-broadcasting/psb-annual-report-2017>

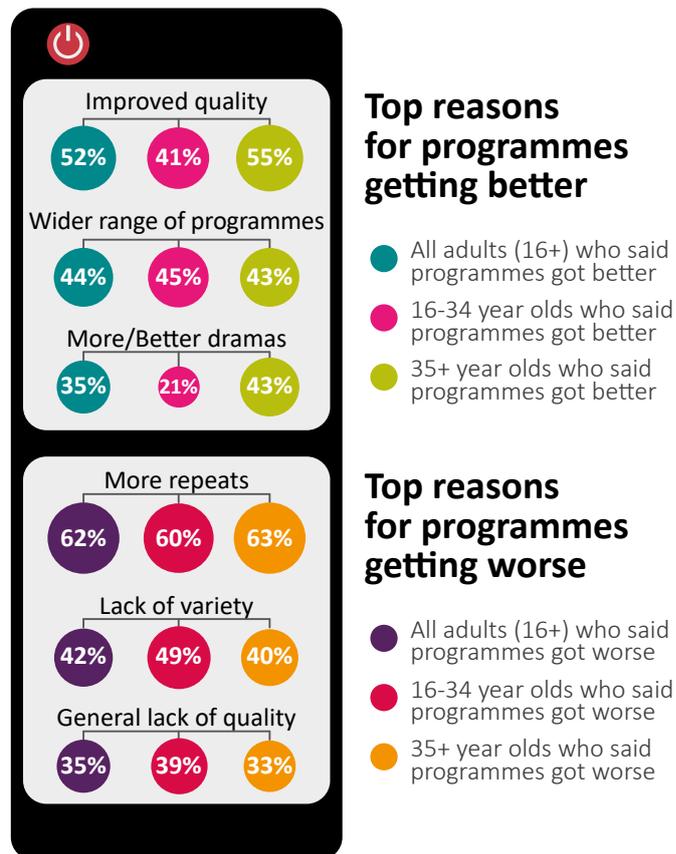
² BBC One, BBC Two, the Channel 3 Services (ITV/STV/UTV), Channel 4 and Channel 5 including their HD variants but excluding their +1s

Among those who felt programmes had got worse, repeats were the most common reason given

Among those who said that they felt programmes had ‘got worse’, the most commonly stated reason was ‘more repeats’ (62%). Younger adults (16-34 year olds) were more likely than those aged over 35 to cite ‘lack of variety’ influencing their perceptions of programmes having got worse (49% v 40%). Other common problems associated with worsening of programmes included ‘general lack of quality’ (35%) and ‘too many reality shows’ (29%). Around one in ten adults who thought programmes had got worse associated this decline in quality with bad language, sex or violence.

Among those who thought that programmes had improved, about half felt that there had been ‘improved quality’ (52%) and a ‘wider range of programmes’ (44%). Other popular answers included ‘more/better dramas’ (35%) and ‘more interesting/entertaining’ programmes (30%).

Figure 2.52: Top reasons given for programmes having improved or got worse



Source: Ofcom Media Tracker, 2016.

Q21- In what ways do you think that the television programmes have improved over the past year?

Q22- In what ways do you think that the television programmes have got worse over the past year?

Base: All saying programmes ‘improved’ over past year (274); 16-34 (104); 35+ (170); All saying programmes ‘got worse’ over past year (634); 16-34 (121); 35+ (513). Unprompted, multicode.

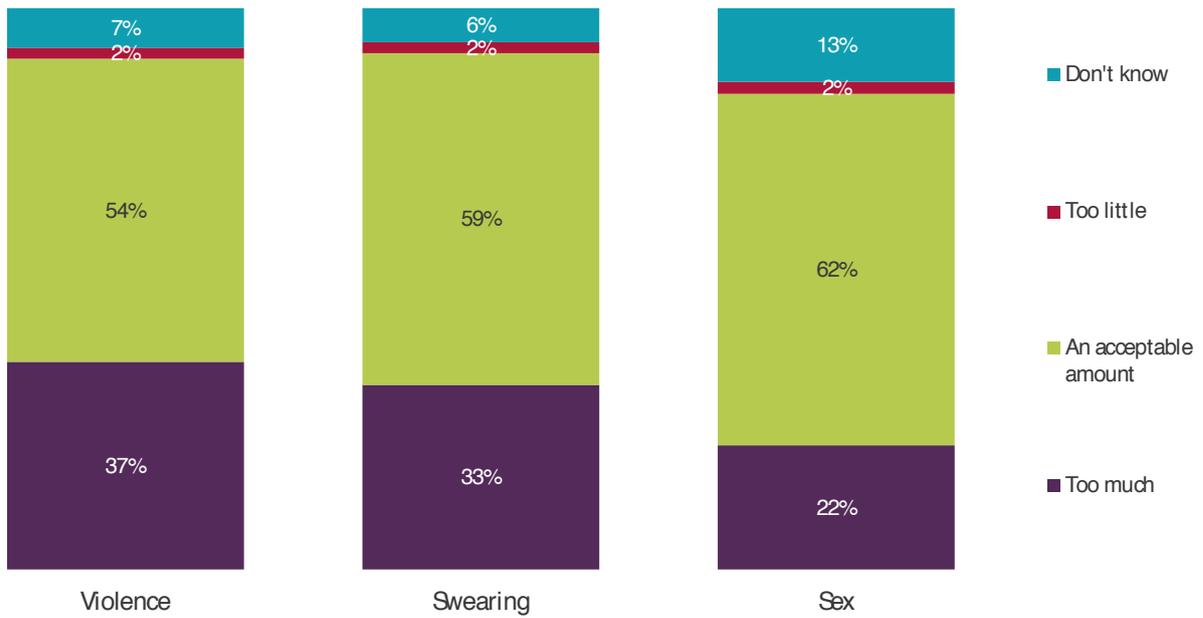
More than a third of adult viewers believe there is too much violence on television

Figure 2.53 shows the opinions of viewers on the amount of sex, violence and swearing on

TV. It shows that around a fifth of viewers (22%) believe that there is too much sex on television

while a higher proportion say that there is too much violence (37%) or swearing (33%).

Figure 2.53: Opinion on the amount of sex, violence and swearing on TV among viewers



Source: Ofcom Media Tracker, 2016. Q46- Do you think, in general, that there is too much, too little or an acceptable amount of each of the following on television: a) sex? b) violence? c) swearing?

Base: All with any TV sets (2,022). Prompted, single code.