The future of Channel 4 in a changing market environment

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Ernst & Young LLP

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1. Executive Summary

As a publicly-owned but commercially-funded broadcaster, Channel 4 occupies a unique place in the UK's broadcasting ecosystem. Founded in 1982, it has a particular remit to promote innovation and diversity in UK broadcasting, both on-screen and through its supplier base.

In a rapidly changing broadcasting and media environment, questions have been raised about the long-term future of Channel 4 – both in terms of its programming mission and future ownership. The Government has indicated that *"…the remit of Channel 4 is a priority and it's not going to change"* [1], but is reviewing whether Channel 4 should have a different ownership structure in future, with privatisation as a potential option under consideration.

In the context of ongoing policy debates, Channel 4 has commissioned EY to produce an independent report to assess the impact of market trends on the financial sustainability of Public Service Broadcasting (PSB) delivery by Channel 4 as a standalone entity, and to draw out relevant policy implications. This report has been produced by EY, in consultation with Simon Terrington, founder of strategy and research firm Terrington & Company.

We summarise our main findings in this section, and expand on these points in the remainder of this document.

1.1 Channel 4 operates in a complex regulatory environment

The regulatory regime underpinning Channel 4

The main free-to-air networks in the UK have a form of "public service broadcasting" status, which means that they are obliged to deliver particular programming and broader regulatory obligations to reflect the public service roles they have been assigned. The "public service broadcasters" (PSBs) in the UK are the BBC, ITV, Channel 4, Channel 5, S4C and local TV broadcasters. Given that the public service channels still account for over 50% (and their wider channel portfolios over 70%) of all TV viewing, the regulation and policy affecting these broadcasters has a significant impact on the sector as a whole.

That said, there is a range of PSB operating and funding models in the UK: of the publicly-owned broadcasters (BBC and Channel 4), only the BBC directly receives public funds; and of the commercially-funded broadcasters (ITV, Channel 4 and Channel 5), only Channel 4 is publicly-owned. Channel 4 is therefore unique amongst UK broadcasters.

Channel 4 is also underpinned by a regulatory remit (as set out in the Communications Act 2003[2] and amended in the Digital Economy Act 2010[3]) requiring it to focus on – and invest in – innovation, experimentation, creativity and diversity. The remit applies across Channel 4's services, and its main channel has a series of specific licence requirements relating to programming and production obligations. Further, in setting up the channel in 1982, the Government of the day sought to use Channel 4 to promote diversity in UK television programme production (which until then had been focused largely on BBC and ITV in-house production). Channel 4 was therefore deliberately set up as a "publisher-broadcaster", i.e. without any in-house TV production operations.

The overall effect of the regulatory and ownership regime underpinning Channel 4 is that it operates on a not-for-profit basis. It therefore does not seek to maximise profits, instead focusing its core mission on delivering its remit, maximising public value through investment in high quality original programmes, and supporting a wide range of independent production

[1] John Whittingdale, Secretary of State for Culture, Media and Sport, speaking to the Guardian Edinburgh International Television Festival, August 2015
[2] Communications Act 2003 – Section 265
[3] Digital Economy Act 2010 - Section 22

companies. As such, rather than maximising commercial returns, Channel 4 reinvests the income it generates into high-quality UK-originated programming that contributes towards delivery of its PSB remit.

Recent regulatory reviews have reached conclusions regarding Channel 4's long term sustainability

Over the years, Channel 4 has been subject to a number of regulatory reviews, with recent processes concluded by Ofcom in 2014 and 2015 being particularly relevant to an assessment of Channel 4's long term sustainability:

- In early 2014, Ofcom renewed Channel 4's main channel PSB licence until the end of 2024. Ofcom's licence renewal process was predicated on an evidence-based analysis of the market trends likely to affect Channel 4's remit delivery and wider PSB obligations, and Channel 4's ability to sustain that delivery over the 10 year licence period. In this 2014 process, Ofcom concluded that Channel 4's PSB delivery is sustainable to 2024, and so a key question for consideration concerns whether the broader market and consumer environment has changed sufficiently since then to justify a different conclusion regarding sustainability.

- Some indication of a potential answer to this question may be found in Ofcom's conclusions on the future of Channel 4 in its third review of public service broadcasting (PSB Review) in 2015. In this review, Ofcom noted that there may be a case for changes to the regulatory regime underpinning Channel 4 in order to maintain and strengthen its future public service delivery – for instance by easing navigation to and prominence of Channel 4 content across its range of channels and its on-demand player, or allowing the licence obligations to be met across the full range of Channel 4 services.

1.2 Over recent years, Channel 4 has successfully adapted to a changing and challenging marketplace

The commercial environment in which Channel 4 operates has been subject to significant change in recent years. This report therefore begins with a retrospective view of the commercial environment in which Channel 4 has operated, considering three key challenges the business (and the free-to-air TV sector more generally) has faced over the past ten years:

- **Challenge i: Changes in the TV revenue mix** – Over the past ten years or so, changes in viewing behaviour and broadcast business models mean that the UK television market has witnessed subscription revenue overtaking advertising revenues as the largest source of funding for the TV industry. Within TV advertising, in the period from 2004 to 2014, revenues have grown by 12% in nominal terms, whilst continuing to be volatile and cyclical – experiencing significant and rapid recession in 2009, following by recovery after 2010.

- **Challenge ii: The digital revolution and channel fragmentation** – The above shifts in advertising have taken place in – and are connected to – an environment in which analogue television has been replaced with digital television, as a result of which competition for a finite amount of viewing time and advertising revenue has increased significantly. The key impact has been an 8% reduction in viewing share accounted for by the main free-to-air networks from 2004 to 2014.

- **Challenge iii: The rise of non-broadcast audiences** – More recently, audiences have benefitted from new technologies that enable greater choice and flexibility in their viewing habits. In particular, the rise of digital television has brought with it increasing consumer take-up of digital video recorders, which allow viewers to time-shift their viewing and – critically for commercial free-to-air broadcasters such as Channel 4 – skip adverts when watching recorded content. Further, with the emergence of wider broadband take-up and faster speeds in the UK, viewers have begun to consume content on-demand – both from the free-to-air broadcasters' catch-up services, and from subscription video on-demand (SVOD) services such as Netflix, Amazon Prime and Now

TV. The behaviour of younger viewers – who are core to Channel 4's viewing – is particularly relevant here, as younger audiences are exhibiting signs of shifting away from "linear" (i.e., watched at the time of broadcast) television more rapidly than other audiences.

All of these developments have created challenges, not only for Channel 4, but for free-to-air broadcasting more generally. The UK's broadcasters have sought to address these challenges by adapting their businesses to the new digital television environment.

Channel 4's particular approach to this evolution has included:

- Launching a portfolio of linear channels – including E4, More4, Film4 and Channel 4+1 – in order to defend its overall viewing share and to provide further choice to audiences in a fragmenting environment. This has enabled Channel 4 to maintain viewing share across its channel portfolio.

- Investing in digital TV – joining the Freeview consortium on Digital Terrestrial Television (DTT), and working with other broadcasters, Arqiva and Digital UK to fund and implement the switchover from analogue to digital TV.

- Being the first UK broadcaster to launch an on-demand proposition – 4oD (now replaced with All4) – in response to changing audience needs and behaviours. In 2014, digital media (i.e. Channel 4's on-demand services and stand-alone digital content) contributed £62m (7%) to Channel 4's group revenues.

- Being the first commercial UK broadcaster to launch a data strategy, using its database of 13m registered viewers (including half of all 16-34s in the UK) to drive creative and commercial innovation – including personalised recommendations and demographically-targeted advertising.

- Strengthening its advertising sales house position, by expanding its sales capability to include third party ad-sales representation. In addition to selling its own advertising, Channel 4 currently represents UKTV, BT and Box.

- Diversifying its revenue base away from linear advertising – for instance developing pay-TV distribution revenues from HD variants of its channel portfolio.

- Cutting costs in its business – focusing on overheads and non-core operations, but also taking the short-term decision to reduce programme spend during the advertising recession. That said, throughout the period, Channel 4 retained a scale investment in original content, and has increased that investment in the years following recession, against a backdrop of reductions in content investment elsewhere in the market.

Throughout this evolution, Channel 4 has broadly maintained its overall portfolio viewing share and continued to deliver on its PSB remit. Audience research demonstrates that Channel 4 outperforms other PSB channels on the qualitative characteristics of its public service remit – such as risk-taking and addressing minority views – and this performance has been consistent over time. This demonstrates the distinctive and valuable place Channel 4 occupies in the UK's broadcasting ecosystem.

Overall, therefore, Channel 4 has successfully adapted to the challenges it has faced, and – critically – it has had the required flexibility within its existing regulatory and ownership structure to innovate and respond rapidly to the changing market environment.

1.3 We expect Channel 4 to remain sustainable, but the organisation will need to retain the freedom to adapt and innovate in response to market developments

Whilst Channel 4 and other broadcasters have adapted to market change in recent years, there remains a key question about what the coming years will bring. This report therefore considers the evidence on market trends, enabling us to assess the long-term sustainability of Channel 4.

Our overall view is that:

- Linear TV, still the main source of viewing for Channel 4, will continue to be of central importance to UK viewers. We do expect the use of “non-linear” content services – services other than broadcast television, e.g., video on-demand (VOD) – to grow and become increasingly prominent as sources of video consumption over the coming years, aided by increasing broadband speeds and coverage. These developments are likely to reduce the share of overall viewing (across both TV and other devices) accounted for by linear broadcast television. But we expect broadcast television to continue to be a significant force in the marketplace.

- Within linear TV, the Channel 4 core channel’s share is stabilising, with its share of viewing increasing in 2015 for the first time in a decade. On a portfolio level, Channel 4 has successfully maintained its viewing share through the process of digital switchover.

- TV advertising revenues will remain robust as a source of funding for Channel 4’s content investment and will continue to grow. This should continue to create opportunities for Channel 4 to pursue deals for third party advertising sales representation. Further, we note that Channel 4’s revenue performance has remained robust – with overall revenues increasing by £30m to £938m in 2014. Whilst financial results for 2015 are not yet available, we noted above that Channel 4’s viewing share – a major driver of its advertising revenue performance – increased in 2015.

- Outside of linear TV, Channel 4 has displayed innovation in launching and continuing to develop its on-demand proposition, and investing significantly in its data strategy. This has enabled it to monetise the growing amount of on-demand viewing, and to reach younger audiences through a growing number of screens via All4. This should leave Channel 4 well-placed to leverage its brand across platforms, and benefit from continued growth in non-linear viewing and associated digital / mobile advertising spend.

- Whilst new search and discovery methods will continue to evolve, the thrust of policy in the UK is to seek to aid navigation to public service content on-demand. Consumption trends also suggest a continued propensity for UK viewers to be attracted to locally-produced UK content (e.g., *Poldark*, *Downton Abbey*, *Humans*) – with SVOD services continuing to grow in importance, but serving consumer needs in a complementary manner to linear TV and not competing directly with broadcasters for advertising revenue.

Set against the above, we have identified three risks which could create challenges for Channel 4 in the future:

- **Younger audiences may continue to shift away from linear television more rapidly than other audiences, creating a structural decline in TV viewing over time.** A key question concerns the future behaviour of younger audiences, with recent research providing mixed evidence on whether today’s young audiences will increase their live viewing over time, or whether they will carry forward their current behaviours as they get older. There is inherent uncertainty in this area, and we cannot discount the possibility that today’s young audiences will continue to shift away from broadcast television, with adverse consequences for free-to-air broadcasters. Further, today’s youth may be replaced by new younger audiences, with equally (if not more) significant shifts away from linear TV and long-form content in general. The future viewing of younger audiences does therefore pose a potential long-term structural risk to free-to-air broadcasters, including Channel 4.

However we do observe that Channel 4 is already investing in evolving the All4 proposition and is successfully monetising non-linear viewing. It is also worth noting that, based on our assessment of market trends, our overall view is that linear television broadcasting will remain robust into the long term.

Additionally, responding to this risk requires broadcasters to meet the changing needs of younger audiences, and, in the context of the Government's consideration of the future ownership of Channel 4, it is not clear to EY that either public or private ownership makes any difference to a broadcaster's ability to meet this need.

► **Increased competition from new entrants and overseas players could adversely affect the future of free-to-air content investment.** There is a potential risk that increased future content expenditure by international players in the UK broadcast market (including Channel 5's owners Viacom) could take commissions and viewing share away from the other PSBs and other UK broadcasters. Further, on the supply side, there has been significant growth and consolidation in the external production sector. However, despite these market dynamics, we do not see evidence that UK broadcasters are failing to secure the content they need, and nor are content commissioning prices increasing.

  In parallel, the future funding of the BBC is still under consideration in the context of BBC Charter Review. However, in the event that funding pressures lead to reduced content investment by the BBC (as witnessed, for instance, by the decision to move BBC Three to an online-only service), this could serve to ease the competitive environment for content investment decisions by commercial broadcasters including Channel 4.

► **The cyclical and volatile nature of advertising revenues could continue to create shocks to commercial PSB funding, akin to that experienced in 2009.** It is useful to note in this regard that – as set out in Section 1.2 above – Channel 4 responded to previous challenges by adapting its business model, cutting non-core costs, and ultimately implementing reductions in programme spend when this proved necessary. Whilst there may be questions as to the extent to which it will retain the same degree of flexibility in future – for instance if it has already removed all non-core businesses and optimised overheads – we note that Channel 4 maintains significant cash reserves, including funds ear-marked for content investment.

  The risk of advertising volatility has always been faced by commercial broadcasters. As such, Channel 4 and other commercial broadcasters should be able to adapt their businesses to market change, and examine their cost bases if necessary. This includes the potential for adjusting content spend in response to short-term advertising market developments. Whilst reductions in programme spend might have adverse implications for content quality and therefore public value, it is likely to be an option available to Channel 4 if the circumstances require it. Further, history also suggests that if content spend is reduced in response to short term advertising market shocks, the ability to increase investment would return as the market recovers.

  Additionally, changes in advertising dynamics create opportunities for broadcasters in the fast-growing digital and mobile advertising markets, through the monetisation of on-demand viewing, harnessing data on online viewers' behaviour in order to better target advertising messages, and developing targeted advertising in linear television (a technology available on Sky's satellite platform, and potentially under development on other platforms).

As a result, on balance we consider Channel 4's future to be sustainable, provided it retains the commercial and regulatory flexibility to respond to market developments and short-term change in the manner in which it has done so in the recent past. We note that Channel 4 has demonstrated a track record of successfully innovating and adapting to significant industry change, and Channel 4 – as well as other broadcasters – will need to continually adapt to mitigate industry risks.

1.4 Conclusions and policy considerations

Overall, Channel 4 has a track record of demonstrating flexibility and adaptability in the face of changing policy, consumption patterns, and economic conditions that impact on both short and mid-term profitability. This stands it in good stead to deal with future challenges – and we expect Channel 4 to remain sustainable as a standalone business, assuming it retains its current flexibility and ability to adapt. But challenges will still arise – with implications for both Channel 4 and policy-makers.

In this context, we raise a number of key considerations that we recommend to policy-makers when reviewing the future of Channel 4 and its delivery of PSB:

1. **Within the existing regulatory regime, Channel 4 has a degree of discretion as to how it fulfils its regulatory obligations – it is important to maintain this discretion.** Channel 4's overarching remit is largely qualitative in nature, and grants it the flexibility to take steps to adapt its business model in the face of both short term and longer term change.

2. **That said, the regulatory environment may need to evolve over the longer term – but this should not require a wholesale shift away from the core Channel 4 remit.** Ofcom has already noted the potential for changes to Channel 4's PSB delivery in future – for instance by making regulatory changes that would ease navigation to and prominence of Channel 4 content across its range of channels and its on-demand player; and allowing the licence obligations to be met across the full range of Channel 4 services. More broadly, Ofcom has also noted the potential for broader regulatory change in the PSB regime, such as reform of the rules around platform access and prominence, and reviewing the relationship between PSBs and independent producers. There is therefore the potential for greater flexibility to be delivered within Channel 4's existing ownership and regulatory structure.

3. **It is important to remember that Channel 4 is one part of a wider sector undergoing change, with that sector subject to interlocking shifts in the regulatory and policy regime.** For instance, the Government's review of Channel 4's future is taking place at the same time as the process of BBC Charter Review, and international policy processes that impact on broadcasting policy and regulation in the UK. It is therefore important not to take decisions about the future of Channel 4 in isolation.

4. **If Government is considering privatisation of Channel 4, considerable thought should be given to the implications for remit delivery and the potential for organisational uncertainty**. Given Government's commitment to continued PSB status for Channel 4, any consideration of privatisation options needs to be accompanied by a clear statement of the problems that Government is trying to address, and the outcomes that Government is seeking to achieve. In particular, there is a need to balance the potential (but inherently uncertain) benefits that privatisation may bring against the potential risks to remit delivery if Channel 4 moves from a not-for-profit to profit-maximising status. Any privatisation process is also likely to be a complex one, and that complexity could create uncertainty within the current Channel 4 organisation. It is important to minimise this uncertainty, in order to avoid risks to the public value generated by Channel 4's PSB remit and original content investment.

2. Introduction, scope and structure of this report

This section sets out EY's scope of work, and introduces the purpose and structure of this report.

2.1 Introduction

As a publicly-owned, but commercially-funded broadcaster, Channel 4 occupies a unique place in the UK's broadcasting ecosystem. Government has indicated that Channel 4 should retain its PSB remit – with the Secretary of State for Culture, Media and Sport stating *"…the remit of Channel 4 is a priority and it's not going to change"* [4], That said, Government is reviewing whether Channel 4 should have a different ownership structure in future – with privatisation as a potential option under consideration.

2.2 Scope of work

In the context of ongoing policy debates, Channel 4 has commissioned EY to produce an independent report to assess the impact of market trends on the financial sustainability of PSB delivery by Channel 4 as a standalone entity, and to draw out relevant policy implications. This report has been produced by EY, in consultation with Simon Terrington, founder of strategy and research firm Terrington & Company.

2.3 Structure of this report

The remainder of this report addresses the above scope of work in the following way:

- Section 3 provides an overview of the regulatory environment in which Channel 4 operates, noting that Ofcom's recent licence renewal process concluded that Channel 4 will be sustainable to 2024, and explains how the regulatory and policy environment is subject to ongoing change.

- In Section 4, we take as a starting point a ten year retrospective view of Channel 4, considering how Channel 4 has adapted to the rapidly changing market environment as competition for viewing and advertising has increased.

- Section 5 considers the implications for Channel 4 of the trends likely to impact on the UK broadcasting sector over the coming five to ten years – in effect the timeframe which both Channel 4 and external stakeholders (including Government and Ofcom) need to take into account when considering the future options for the business. In so doing, we examine the implications of these market trends for Channel 4 and its ongoing delivery of its PSB obligations and remit.

- Section 6 concludes by setting out our conclusions and the implications of our analysis for policy-makers.

[4] John Whittingdale, speaking to the Guardian Edinburgh International Television Festival, August 2015

3. Channel 4 in a complex regulatory environment

This section provides a brief overview of the regulatory and policy context in which Channel 4 operates. Below we consider:

- Channel 4's regulatory status as a public service broadcaster (PSB), and the ways in which this status differs from other UK broadcasters.
- Recent regulatory history affecting Channel 4 – notably the recent process of Channel 4 licence renewal, in which Ofcom concluded that Channel 4's delivery of its PSB obligations and remit will be sustainable to 2024.
- Current issues in the regulatory environment affecting Channel 4 – emphasising that any decisions about the future of Channel 4 need to be taken in the context of a broad range of ongoing regulatory and policy processes that could impact on Channel 4's business and delivery of PSB.

3.1 Channel 4's regulatory status

It is useful at the outset to set out a brief overview of C4's regulatory status. The main free-to-air networks in the UK have a form of PSB status – which means that they are obliged to deliver particular programming and broader regulatory obligations to reflect the public service roles they have been assigned. In exchange for delivering on PSB remits and obligations, the or PSBs are granted benefits including prominence on Electronic Programme Guide (EPG) listings, and access to universal coverage terrestrial television multiplexes – meaning that the PSB channels are easy to find, and are available to the whole UK population.

The public service broadcasters in the UK are the BBC, ITV, Channel 4, Channel 5, S4C and local TV broadcasters. The PSBs compete for viewing with commercial broadcasters such as Sky (e.g., Sky Atlantic, Sky Movies, Sky Sports), UKTV (e.g., Dave, Really) and Scripps Networks (e.g., Food Network, Travel Channel). Given that the public service channels still account for over 50% (and their wider channel portfolios over 70%) of all TV viewing, the regulation and policy affecting these broadcasters has a significant impact on the sector as a whole.

That said, there is a range of PSB operating and funding models in the UK. Amongst the four UK-wide PSB networks (BBC, ITV, Channel 4, Channel 5), we note that:

- Only one PSB operator – the BBC – is in direct receipt of public funding, in this case primarily through the licence fee.
- All other PSB providers are funded through commercial means – with advertising and sponsorship revenues remaining the largest sources of funding for the core PSB channels operated by ITV, Channel 4, and Channel 5.
- However, whilst ITV and Channel 5 are both private sector companies – in Channel 5's case as a subsidiary of Viacom – Channel 4 is publicly owned.

Channel 4 is therefore unique amongst UK broadcasters, in that it is publicly-owned (like the BBC), but does not receive any direct public funding. It is (like ITV and Channel 5) purely commercially-funded.

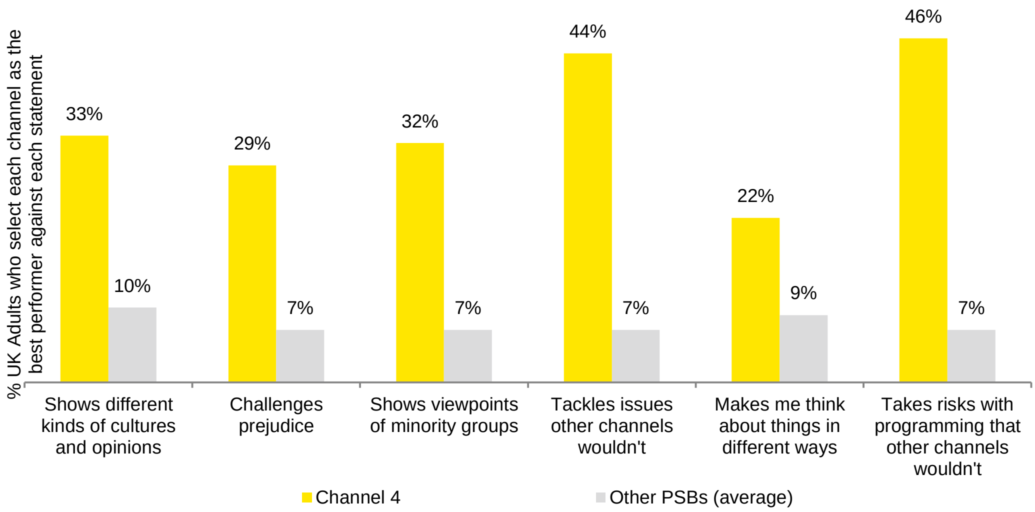
Further, in setting up the new channel in 1982, Government deliberately sought to use Channel 4 to promote diversity in UK television programme production (which until then had been focused largely on BBC and ITV in-house production). Channel 4 was therefore set up as a "publisher-broadcaster", intended to secure programming from – and thereby help drive growth in – the external TV production sector rather than commission programming from in-house production operations.

The nature of Channel 4's PSB delivery is defined by the Communications Act 2003, the Digital Economy Act 2010 and its licences as issued by Ofcom. Its quantitative licence obligations are focused on the delivery of news, current affairs, schools programming, original programming, independent productions and production outside London and in the Nations (i.e. Scotland, Wales and Northern Ireland)[5].

Its broader remit, as amended in the Digital Economy Act 2010, is qualitative rather than quantitative, but ultimately drives the nature of the programme service that Channel 4 provides – e.g., obligation to demonstrate innovation, experiment, and creativity; to appeal to the tastes and interests of a culturally diverse society; to make a significant contribution to include programmes of an educational nature and of educative value; and to exhibit a distinctive character. The remit applies to all of Channel 4's activities, although the quantitative licence obligations apply only to the main Channel 4 PSB channel.

Channel 4 tracks its performance against its remit by commissioning regular surveys that benchmark viewers' opinions of Channel 4 against the other main PSB channels; enable Channel 4 to gather viewer feedback on the public value it delivers; and track remit delivery. As documented in Channel 4's Annual Reports, Channel 4 has repeatedly outperformed the other main PSB channels on all the qualitative statements that are linked to its public service remit, and this performance has been consistent over time. This demonstrates the distinctive and valuable place Channel 4 occupies in the UK's broadcasting ecosystem, and its ability to act as a trusted brand to UK audiences. Examples of Channel 4's strong performance in 2014 in delivering against its remit are shown in the chart below:

Figure 1: Channel 4's delivery against selected remit criteria, benchmarked against PSB cohort (2014)



Source: Channel 4 Annual Report

The overall effect of the regulatory and ownership regime underpinning Channel 4 is that it operates on a not-for-profit basis. It therefore does not seek to maximise profits – instead focusing its core mission on delivering its remit, maximising public value through investment in high quality original programmes, and supporting a wide range of independent production companies. As such, rather than maximising commercial returns, Channel 4 reinvests the income it generates into high-quality, UK-originated programming that contributes towards delivery of its PSB remit.

[5] See http://licensing.ofcom.org.uk/binaries/tv/c4/Attachment_to_the_notice_of_renewal.pdf for the licence conditions currently in force on Channel 4.

3.2 Channel 4: recent regulatory history

It is useful to provide an overview of three recent Ofcom reviews, conducted over the last two years, which have all included analysis of the future sustainability of Channel 4. These reviews are:

(i) The Renewal of the Channel 4 Licence[6] agreed in March 2014 – the renewal of Channel 4's licence for the period up to 31 December 2024 was predicated on an evidence-based analysis by Ofcom of the market trends likely to affect Channel 4's obligation and remit delivery and Channel 4's ability to sustain that delivery over the 10 year period.

(ii) A Review of Channel 4, 'Channel 4 Corporation's performance in meeting its media content duties'[7], published July 2015 – this review looked at the delivery by the Channel 4 Television Corporation (C4C)[8] of its media content duties and was carried out in parallel with Ofcom's third PSB Review.

(iii) Ofcom's third review of PSB, 'Public Service Broadcasting in the Internet Age'[9], published in July 2015 – this reviewed the performance of the PSB system under the terms set of Ofcom by Parliament. The review provides an opportunity to consider how the PSB system as a whole is operating; whether it is meeting the expectations Parliament has set for it; and whether it needs strengthening.

The key point to note here is that Ofcom concluded in 2014 – in its process of Channel 4 licence renewal – that Channel 4's plan to maintain PSB delivery to 2024 is "*credible and realistic*"[10]. That said, Ofcom's reviews in 2015 also posited potential future challenges to Channel 4's PSB delivery.

Renewal of the Channel 4 Licence

In its 2014 statement[11] on the renewal of the Channel 4 licence, Ofcom set out its analysis of the sustainability of Channel 4 over the proposed licence period (of ten years). Ofcom concluded that "*while there is potential for significant change over a ten year period, C4C's submission that the licence obligations can be maintained is credible and realistic*"[12].

In order to reach conclusions on the future sustainability of Channel 4, Ofcom conducted an assessment looking at the market changes which had taken place in the then current licence period to 2014 and the market challenges which may unfold in the next licence period to 2024. The results of this analysis then fed into Ofcom's view on Channel 4's sustainability.

Market change in the licence period to 2014

Ofcom stated that, in the then current licence period, the reach of the main PSB services to viewers had declined, with Channel 4's average weekly reach[13] falling from 61% in 2006 to 51% in 2012. Ofcom also reviewed the audience share of the C4C group since 2009 which remained level at c.11.5%. Ofcom noted that, within this, the portfolio channels outside of the main Channel 4 service accounted for an increasing proportion of this share, and Channel 4's

[6] http://stakeholders.ofcom.org.uk/binaries/consultations/renewal-c4-licence-out-of-england-quota/statement/Channel_4_Licence_Renewal_Statement.pdf
[7] http://stakeholders.ofcom.org.uk/binaries/consultations/c4-media-content/statement/Channel_4_DEA_Review_Statement.pdf
[8] The Channel 4 Television Corporation (C4C) is a statutory body established to ensure the continued provision of the Channel 4 service
[9] http://stakeholders.ofcom.org.uk/binaries/consultations/psb-review-3/statement/PSB_Review_3_Statement.pdf
[10] Ofcom (2014) Statement - Renewal of Channel 4 licence, paragraph 4.16
[11] http://stakeholders.ofcom.org.uk/binaries/consultations/renewal-c4-licence-out-of-england-quota/statement/Channel_4_Licence_Renewal_Statement.pdf
[12] Ofcom (2014) Statement - Renewal of Channel 4 licence, paragraph 4.16
[13] Defined as 15 minutes consecutive minutes of viewing at least once in a week.

wider portfolio channels accounted for a higher proportion of viewing for C4C than the comparable portfolio channels for the other PSB broadcaster groups.

Ofcom stated that the portfolio channels, whilst not having PSB status or licence obligations, contributed to C4C's delivery of its remit by providing a profitable return to help support investment in public service content and providing additional ways to reach and engage viewers with 'Channel 4' branded content. The profitability of Channel 4's portfolio services and exploitation of secondary rights meant that C4C had been able to sustain its cash reserves and content investment, even increasing content investment on the main Channel 4 PSB service.

Potential market challenges in the next licence period to 2024

In terms of market challenges for the next licence period, Ofcom discussed a number of opportunities and risks that may arise. For example, Ofcom noted:

- The increase in broadband penetration had helped to make non-linear on-demand services more widely available, and that this had, "*generally proved to provide audiences with more viewing opportunities, rather than competing directly with linear broadcast services*"[14]. However, Ofcom noted that, "*the balance of linear broadcast consumption and non-linear viewing may change as options for viewing proliferate, and the commercial revenues to broadcasters may change as a result.*"[15]

- The ways that viewers navigate and discover content are increasing outside the scheduled broadcast channel and its position in linear TV guides. Ofcom's view was that this could reinforce the value of familiar brands and channel positions, but that this could also fragment viewing away from scheduled TV and linear channels.

- The main sources of content for C4C are growing in scale and increasingly operate as part of a global market for content. With non-PSB broadcasters acquiring rights to programmes and investing in original production at significant scale, this could lead to greater costs in securing content for the UK market to meet Channel 4's specific requirements and remit.

However, Ofcom noted that, although there are challenges, these could also be opportunities for Channel 4 and Ofcom referenced the fact that C4C has adapted to change. Ofcom described Channel 4 as a "*pioneer*" [16] and noted that C4C has *"a proprietary on-demand service (4oD) that operates across platforms, and internet distribution for its content via a number of third parties. It has launched initiatives to extend viewer engagement and relationship management through both linear programming and non-linear applications. And it has invested in and developed original, supplementary non-broadcast content and 'second-screen' applications in support of its main programme brands.*"[17]

On this, Ofcom reached the view that the main challenge for C4C in delivering the Channel 4 PSB remit and its licence obligations remains in its ability to sustain a cross-subsidy model to invest in content that both fulfils its remit and attracts and retains audiences. Ofcom considered that this would be dependent on: the resilience of the UK TV advertising market; the extent to which Channel 4 can strengthen audience share, particularly on the main channel; managing risks of higher costs of original programming or rights; operating in a global market but maintaining a strong UK focus; ensuring availability on more distribution platforms based on-demand by viewers; and a detailed understanding and strong relationship with viewers.

[14] Ofcom (2013) Consultation - Renewal of Channel 4 licence ,paragraph 4.22
[15] *ibid* paragraph 4.22
[16] *ibid* Paragraph 4.27
[17] *ibid* Paragraph 4.27

In assessing the sustainability of Channel 4's licence, Ofcom reviewed the commercial model that C4C submitted to Ofcom, which set out C4C's view that it would be able to maintain its licence obligations for the next licence period. Using this and its own analysis, Ofcom noted that linear TV viewing had proved resilient in all age groups and that the main terrestrial broadcasters continued to attract relatively high levels of viewing on their channels and on-demand services compared to non-broadcasters; that, despite rapid growth of online advertising and other response marketing mechanisms, display media advertising budgets overall had also continued to grow slowly, indicating that the two are not direct substitutes; that TV advertising has been resilient in recent years with an increased share of overall advertising revenues; and that C4C had retained a high share of TV advertising revenues, based on its comparatively high reach to the 16-34 demographic.

Overall, Ofcom concluded that C4C's financial plan is credible and its ability to maintain its licence obligations under the next period realistic. However, Ofcom continued to note that there is the potential for significant change in the sector and that there are risks to C4C's financial model, such as cyclical decline, a short-fall in revenue year-on-year or structural decline with a prolonged fall in advertising revenues.

From the analysis that Ofcom conducted as part of the consultation and the responses received, Ofcom concluded in its statement that "*we remain of the view that, while there is potential for significant change over a ten year period, C4C's submission that the licence obligations can be maintained is credible and realistic. We note the risks that a structural decline in revenue might pose to meeting Channel 4's public service remit and the licence quotas, but also the mitigating actions that C4C has proposed in this event*"[18]. On this basis – reaching the conclusion that Channel 4 is sustainable on a standalone basis – Ofcom renewed the licence for a ten year period commencing 1st January 2015.

Review of Channel 4 Corporation's performance in meeting its media content duties

That said, Ofcom has noted at least the potential for different outcomes on sustainability in its reviews which concluded in 2015 – noting potential options for changes to Channel 4's future PSB delivery.

In terms of the review of Channel 4's performance in meeting its media content duties, Ofcom looked at a number of issues including C4C's performance on audience reach and share. Ofcom observed that, although all of the main five PSB channels sustained audience losses over the review period, the rate of decline for Channel 4's reach and audience share was significantly higher. Ofcom noted that, if this rate of decline were to continue, this could raise risks to the future PSB contribution of Channel 4.

Ofcom looked at the data for 2014 and noted that the monthly reach of the main channel continued to decline, although the rate of decline was more stable. Ofcom also noted that the share of audience in peak-time for all C4C's channels had increased, suggesting that C4C's drive to reinvent Channel 4's peak-time schedule through increased investment in new commissions was starting to show through. Ofcom also noted that share among 16-34s had also increased.

C4C responded, stressing that the commercial reality of the digital world highlighted the importance of considering how the institution performs as a whole, rather than focusing on the headline performance of the main channel. Ofcom acknowledged the importance of the portfolio of channels, but remained of the view that – given 90% of the originations budget is allocated to the main channel, and that the main channel plays a disproportionately important role in fulfilling C4C's duties – it is legitimate to focus in detail on the performance of the main Channel 4 service.

[18] Ofcom (2014) Statement - Renewal of the Channel 4 licence, paragraph 4.16

That said, as part of the review, Ofcom noted the potential for a simplified regulatory framework for C4C, noting that applying obligations to C4C as a whole rather than solely to the main channel could better support the delivery of its PSB role. Further, Ofcom suggested options such as granting appropriate prominence to Channel 4's portfolio services and on-demand player; and reviewing its current remit to focus the organisation on delivering in areas where it can make the most distinctive contribution[19]. These factors are relevant to future policy considerations, and so we return to them in Section 6 of this document.

Ofcom's third review of Public Service Broadcasting

Also in 2015 Ofcom concluded in its third PSB review that the PSB system had been delivering outcomes legislated for by Parliament. Ofcom noted, for instance, that audience satisfaction had increased and remained high over the review period; and that high profile, big-budget drama continued to be delivered. However, Ofcom also found that investment in new UK-originated content had fallen by £400m in real terms between 2008-2014, a fall of around 15% over the period; that there was minimal provision in some genres; and that there were a number of emerging issues coming from the review.

Ofcom also looked in detail in the review at how the media landscape was changing. Ofcom considered that the key trends driving change included:

- Consolidation and globalisation.
- Changing technology and models of distribution.
- New consumption habits.
- New international players.
- New platforms.

Ofcom reviewed the evidence of the impact of these key trends on the current market. It concluded that, whilst historical evidence was instructive, it was limited in the context of a rapidly changing media market. Ofcom stated that, "*the rapid changes noted in the past two years, since 2013/14, may mark a fundamental shift in audience attitudes and consumption*"[20]. Ofcom then assessed whether the needs and behaviour of young people may be an indicator of future patterns of consumption and looked at a number of key areas – such as a comparison of the consumption of TV content by 16-24s between linear and non-linear sources; use of devices by younger adults compared to older consumers; viewing patterns on video on-demand services; growth in the use of short-form video and of non-AV content.

On the basis of this analysis, Ofcom then considered the potential consequences of a changing landscape – reviewing the opportunities and threats arising from these potential changes, and the effect of these on the different PSB providers. For C4C, Ofcom set out that there were already some concerns about declining reach and impact, with core channel share declining over time. Ofcom's view was that Channel 4's young target audience and its focus on diversity and distinctiveness make it uniquely important to the PSB system, but because of this it was the most likely channel to see viewing behaviour change over the next decade. Ofcom therefore considered that, if more significant change was forthcoming, then "*there may be a case for updating the framework under which C4C operates across the full range of services it offers, and considering whether and how its legislative and regulatory*

[19] Ofcom (2015) Statement – A Review of Channel 4, paragraph 1.6
[20] Ofcom (2015) Statement – Public Service Broadcasting, paragraph 4.8

model might be improved to maintain and strengthen its public service delivery"[21] as laid out in the review of C4C's media content duties.

More broadly, Ofcom looked at other options for support for PSBs to help meet the challenges in a changing landscape. These options for support included extending appropriate prominence to PSB on-demand services, and reform of regulation around platform access, potentially bringing about the payment of "retransmission fees" from platform providers to PSBs. We return to this issue in Section 3.4 below.

These reviews of Channel 4, the portfolio of channels that the Channel 4 group administers, and the ecology of the PSB sector generally, demonstrate that the sustainability of Channel 4 over the next ten years has been reviewed as recently as 2015. Although there remain concerns about sustainability in the challenging scenarios, Ofcom most recent firm conclusion was that Channel 4's PSB contribution will be sustainable until 2024.

3.3 Current issues in the regulatory environment affecting Channel 4

As noted above, the UK free-to-air broadcasting sector is shaped in part by the regulatory and policy environment. Further, given Channel 4's unique status in the UK broadcasting sector, the broader regulatory and policy environment can have a significant influence on Channel 4's business.

We note in this context that there is a range of ongoing regulatory and policy issues that may touch on Channel 4 and the environment in which it operates. We do not express a view on these regulatory processes in this report, but – by way of example – outline some of the key trends and policy drivers below, and note their potential implications for Channel 4. Whilst the outcomes of these processes – and therefore their implications for Channel 4 – are currently unknown, the key point to note here is that Government's review of the future status of Channel 4 is taking place in a context in which there are already several moving parts.

For instance, some of the key current issues in the policy environment are as follows:

- **BBC Charter Review:** The BBC has been referred to (e.g., by Ofcom) as the "cornerstone" of PSB in the UK – the BBC Charter Review process will determine the scale, scope and funding of the BBC; as such, any impacts on the BBC may have ripple effects into the wider sector, including Channel 4.

- **TV production sector and associated regulation:** As a publisher-broadcaster, C4 has made a significant contribution to the growth and development of the independent production sector. Consolidation and vertical integration in that sector means that producers are increasingly no longer "independent" of broadcasters. This is driving change in the market and policy environment, e.g., the BBC is proposing a commercial "BBC Studios" proposition, and Government and Ofcom have been considering options for potential reform of the regulatory environment around programme supply.

- **Future funding of commercial PSB:** There are ongoing debates about the commercial relationship between the pay-TV platforms (particularly Sky and Virgin Media) and the commercial free-to-air broadcasters – Channel 4 and ITV in particular have argued that the pay-TV platforms should pay for carriage of the main free-to-air networks, via some form of "retransmission fees"; whereas the pay-TV platforms have argued that they already provide significant value to the commercial PSBs through prominence on electronic programme guides (EPGs), and as a result that retransmission fees are not justified. DCMS consulted on this subject in 2015 – a decision has not yet been forthcoming, but the conclusion of this process may have an impact on the funding available for Channel 4's content investment.

[21] i*bid* paragraph 5.14

- **Future of digital terrestrial television (DTT) as a means of delivering free-to-air television:** One of the key rights afforded to commercial public service broadcasters in the UK is access to universal coverage capacity on the DTT platform, which enables (for instance) the Channel 4 main channel to reach 98.5% of the UK population. International debates about spectrum policy will impact on the future use of the radio-spectrum by DTT. The recent WRC-15 process concluded that DTT will continue to have access to spectrum until at least 2023 and Ofcom has indicated that DTT is important to UK viewers until at least 2030, but any significant changes to (say) the capacity and coverage of DTT could impact on Channel 4's reach amongst the UK population. Further, within the UK policy context, Ofcom has noted the potential for market-based pricing to be applied to DTT spectrum use from around 2020 – which could lead to a significant increase in Channel 4's distribution costs.

- **Regulation of UK TV advertising:** A wide range of regulation affects television advertising in the UK. In particular, UK licence obligations restrict the extent of advertisements a broadcaster is allowed to show on its channels. Such restrictions are defined in an attempt to ensure that viewers are not exposed to excessive amounts of advertising, and that the quality of the viewing experience is maintained. In the UK, limits of seven minutes an hour (on average) are imposed on PSBs, with an average of nine minutes per hour permitted for all other broadcasters. There is some debate over whether these restrictions should be adjusted, or aligned between PSBs and non-PSBs.

- **European regulation of commercial communications:** The European Commission is seeking to create a Digital Single Market (DSM). As part of the DSM process, the Commission is reviewing the Audio Visual Media Services (AVMS) Directive, which – amongst other things – has a significant impact on regulation of TV advertising and other commercial communications (including product placement) in the UK. The European Commission's review of the AVMS Directive could lead to change in EU-wide rules, which in turn would impact on the advertising regulation affecting Channel 4 in the UK.

3.4 Conclusions

Overall, therefore, we note that the regulatory and policy environment has a significant impact on Channel 4, and that the broader regulatory context needs to be properly borne in mind when considering the future options for the Channel 4 business. In particular:

- Channel 4 is unique amongst UK broadcasters, as it is the only publicly-owned but commercially funded free-to-air network. As such, whilst commercially-funded, its strategy is focused on delivery of its remit rather than profit-maximisation.

- Ofcom concluded in 2014 that Channel 4's delivery of PSB would be sustainable until 2024. As such, a key question concerns whether future market prospects and risks have changed sufficiently since then to justify a different conclusion regarding sustainability. Ofcom's more recent work in 2015 noted that there may be a case for changes to the regulatory regime underpinning Channel 4, in order to maintain and strengthen its future public service delivery.

- The current review of future options for Channel 4 is taking place at the same time as a number of Ofcom, UK Government and European Commission policy processes that will also have an impact on Channel 4's business. Any decisions about the future of Channel 4 therefore need to take proper account of the range of moving parts in the wider policy environment.

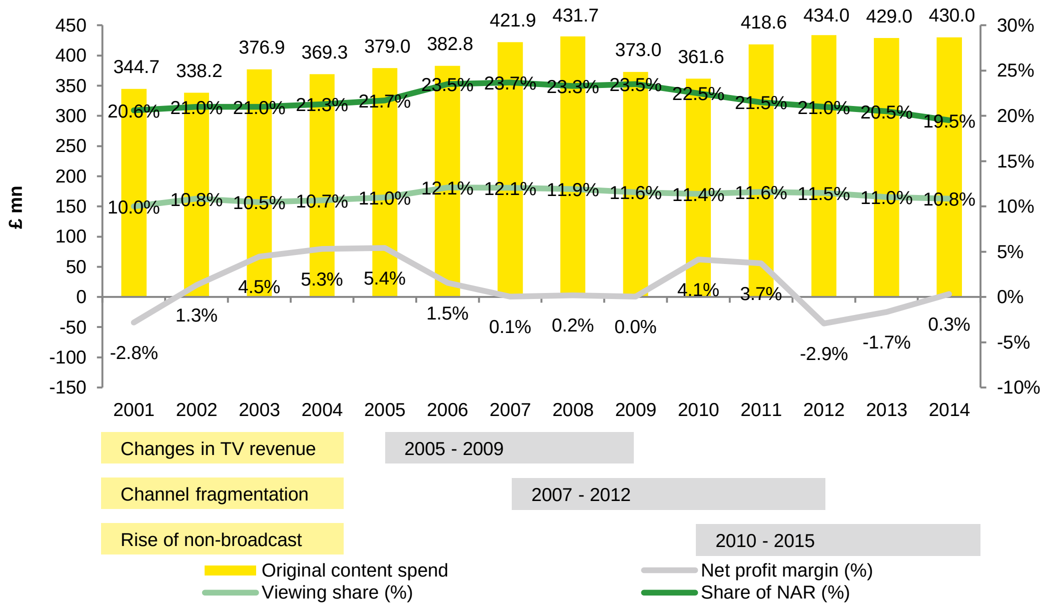
4. Channel 4's adaptation to a changing and challenging market

This section reviews how Channel 4 has adapted to a rapidly changing market environment. We take a retrospective view of the commercial environment in which Channel 4 has operated, considering three key challenges the business (and the free-to-air TV sector more generally) has faced over the past ten years:

- Challenge i: Changes in the TV revenue mix.
- Challenge ii: The digital revolution and channel fragmentation.
- Challenge iii: The rise of non-broadcast audiences to date.

As summarised in the chart below – and explained further in the rest of this section – despite significant market change over this period, Channel 4 has broadly maintained viewing share across its channel portfolio; experienced growth in its share of a growing advertising market until 2007, followed by a fall in share to levels seen in the early 2000s; remained largely profitable; and continued to make a scale investment in original content.

Figure 2: Channel 4 key metrics and overview of challenges over 2001 to 2014[22]



Source: EY analysis, company accounts, BARB/Infosys+, Zenith/Optimedia, Enders Analysis

4.1 Challenge i: Changes in the TV revenue mix

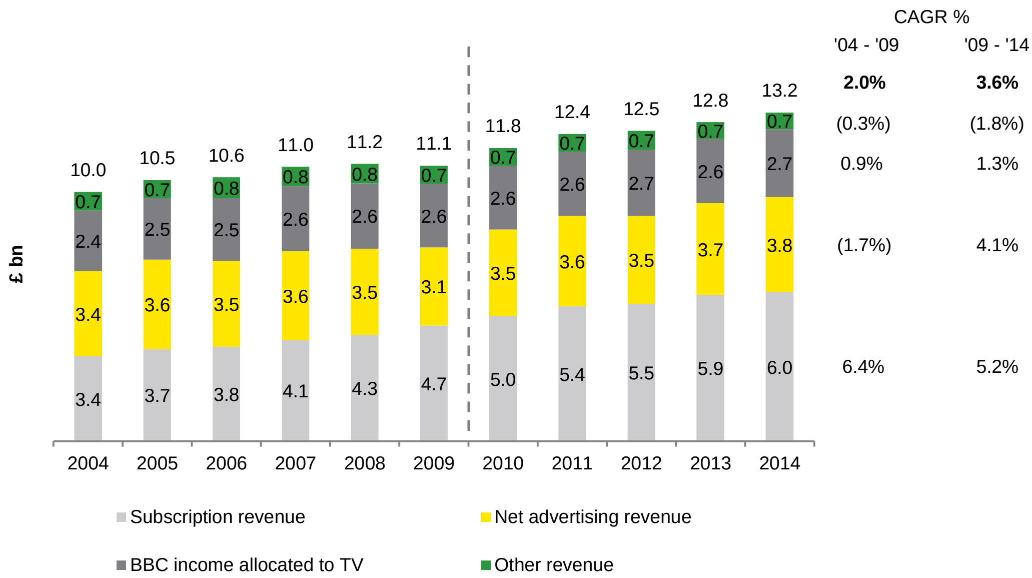
Following the creation of Ofcom in 2003, Channel 4 and the other commercial PSBs (ITV and Channel 5) were issued with "Digital Replacement Licences". These replaced the previous analogue broadcasting licences, and anticipated the move from the analogue to the digital world. As well as reaffirming the licence obligations on these broadcasters, the new digital licences imposed obligations on ITV, Channel 4 and Channel 5 to implement the switchover from analogue to digital TV. Ultimately, the Digital Switchover (DSO) process ran from 2007, completing in late 2012.

[22] For the period 2001-2006, original content spend relates to the main Channel 4 channel only, as reported in the Channel 4 annual reports

By 2004, the digital terrestrial TV world was in development, and alongside this, the take-up of multichannel television had already begun. This brought about material changes to the mix of funding sources in the UK television sector, with shifts in the balance between BBC licence fee funding, advertising funding and pay-TV subscriptions.

Structural shifts had especially emerged with the growth of pay-TV: by 2004, Sky had seven million subscribers, and was targeting ten million subscribers by the end of the decade. More consumers were beginning to pay for access to multichannel services through subscription packages. As the chart below shows, this led to strong growth in subscription revenues; at the same time, advertising revenues were broadly static until 2008, before declining sharply in 2009, but recovering thereafter.

Figure 3: Total broadcast TV industry revenue (By source, £ bn)



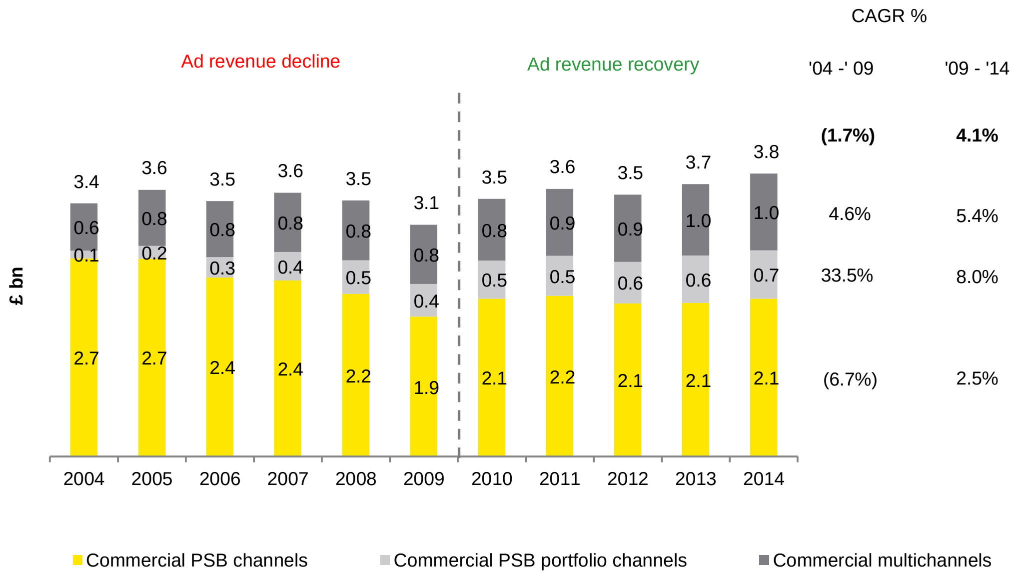
Source: Ofcom – The Communications Market Report 2015

Ofcom data outlines this structural shift. Whilst total TV revenues have grown steadily since 2004 – albeit with a small dip in 2009 – the mix has changed in accordance with changing viewing habits. The key shifts are as follows:

- ► Pay-TV providers have been the key beneficiaries with subscription revenues seeing sustained growth – at 6.4% per annum from 2004 to 2009 and 5.2% per annum since then.
- ► During the same period, BBC licence fee income has remained fairly stable, growing at circa 1.0% per annum (albeit falling in real terms) In contrast, TV advertising revenue is inherently cyclical and performance has been mixed historically. Revenues declined slowly from 2005-08 before a sudden steep drop of 9.4% in 2009 at the height of the recession.

When splitting advertising revenues between key commercial broadcaster types, we can see how commercial PSB channels suffered the most from this decline.

Figure 4: Split of advertising revenue (By broadcaster, £ bn)



Source: Ofcom – The Communications Market Report 2015

The Commercial PSBs, (i.e. ITV, Channel 4 and Channel 5) were adversely affected by the rise of digital TV (the full impact of DSO is discussed in Section 4.3). This led to declines in advertising revenues for the core commercial PSB channels, with revenues declining by 6.7% per annum from 2004 to 2009. That said, advertising revenues for the commercial PSBs have been broadly flat since 2008, apart from the recession-driven outlier of 2009.

Whilst commercial PSBs suffered most from this decline, the impact of this reduction on core PSB advertising revenue was offset by:

- The rapid growth (of 33.5% per annum to 2009 and 8.0% per annum subsequently) in advertising revenues of the commercial PSB portfolio channels, which became increasingly available to a wider proportion of the population following the wider adoption of digital television. As we set out in detail in Section 4.3, Channel 4 adapted to this transition by developing a popular portfolio of supporting channels to complement the flagship channel, both in terms of revenues and in serving targeted segments that are aligned with the remit. The importance of the portfolio channel shifted from accounting for 14% of Channel 4 family views in 2004 to 44% by 2009, further growing to 56% by 2014.

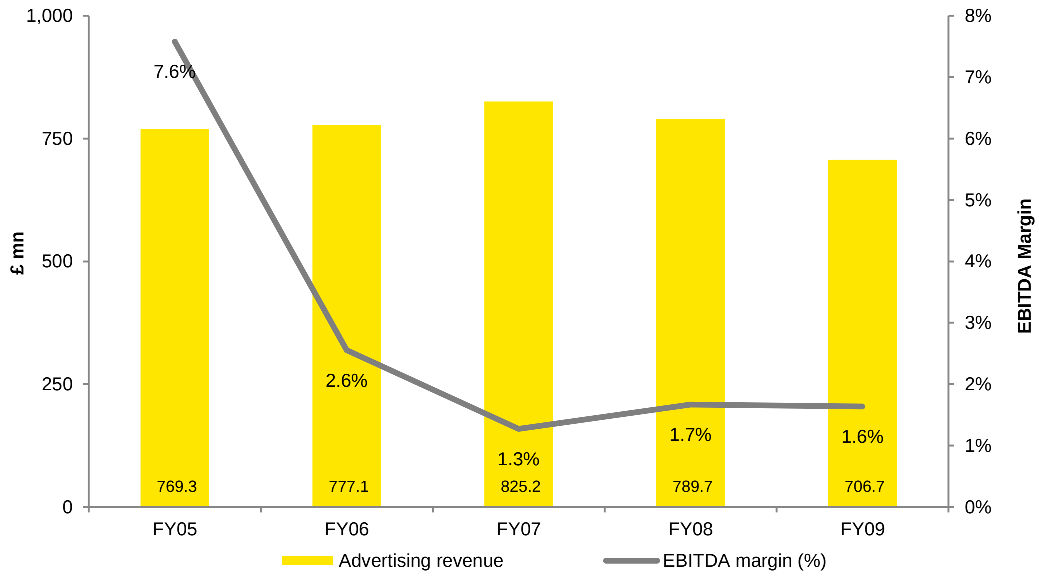
- Commercial multichannel revenues continued to grow steadily from 2004 to 2014, due to the growth in pay-TV households. This indirectly benefitted those commercial PSBs who act as advertising sales houses – selling commercial space for other channels. For example, Channel 4 grew its business in this area by acquiring profitable accounts such as UKTV through this period, and its sales house's share of commercial impacts[23] grew from 17.1% in 2005, to 18.2% in 2009, further rising to 25.8% in 2014 (following the awards of the UKTV and BT Sport advertising sales contracts in 2010 and 2013 respectively).

Throughout this period, Channel 4 and other free-to-air broadcasters felt pressure on both revenue and profitability, as growth in transmission costs outpaced advertising sales growth, causing Channel 4's surplus to decline, as demonstrated below by its EBITDA margin falling from 7.6% in 2005 to below 2% between 2007 and 2009. Whilst Channel 4 operates on a not-

[23] One "commercial impact" is defined as one viewer watching one 30-second television commercial, and is a standard metric associated with sales of commercial TV advertising.

for-profit basis, and therefore does not focus on maximising its profit margin, this analysis is instructive in highlighting that Channel 4 was able to manage its finances through a challenging period, without experiencing an unplanned deficit.

Figure 5: Channel 4 Advertising revenue and EBITDA margin (2005 to 2009)



Source: EY Analysis, Channel 4 Annual Reports

Channel 4 reacted to market change, adapting its business model in an attempt to maintain sustainability.

Firstly, Channel 4 undertook a significant cost reduction programme in the process. Channel 4 reduced its operating costs by 20% to maintain financial breakeven by undertaking initiatives such as:

- In 2008, disposing of its subsidiaries Channel 4 International Ltd, Oneword Radio Ltd and commercial operations of 4 Learning as the markets in which these operated became more competitive and less profitable.
- Outsourced broadcasting and transmission services, which reduced fixed overheads and further increased operational efficiencies.
- Reduced headcount by 25% in 2008, reducing costs through the loss of 200 roles throughout the business.
- Made some adjustments to programming spend and marketing. However, consistent with its remit, Channel 4 continued to maintain material spend on original content.

Secondly – on the revenue side – Channel 4 launched some pay-TV services that reduced its reliance on advertising revenues. As noted earlier, whilst advertising revenues declined by 1.7% per annum from 2004 to 2009, TV subscription revenues rose by 6.4% per annum. Specifically, Channel 4:

- In 2007, Channel 4 launched C4 HD on Sky – the first full-time high definition channel from a terrestrial broadcaster. Channel 4 HD was available only on pay-TV platforms until 2010, when it launched on Freeview.
- Pay for use of online services – Channel 4 offered downloadable content for on-demand users, initially charging a small fee for access to offline downloads.

- At a later stage, Channel 4 extended its pay-TV strategy by launching HD simulcasts of other channels on pay-TV platforms – including E4 HD in 2009, and Film4 HD and More4 HD in 2012.

- Planned for and successfully won a major tender to sell commercial advertising space on behalf of UKTV, increasing revenues from 2010 onwards.

Channel 4 adapted its business model and demonstrated through this period that it had flexibility in adjusting operational expenditure, which allowed it to navigate through the difficult period to 2010 and lay a foundation on which it could build when advertising growth returned.

Recovery of advertising spend

Following the decline from 2005 to 2009, TV advertising revenues have recovered from the 2009 low of £3.1bn to reach £3.8bn in 2014, growing at an average of 4.1% per annum over this five year period. However, this growth has not been distributed in the same manner as it had before the revenues crash in 2005-09: as these revenues recovered, portfolio channels grew fastest as a result of channel fragmentation and the rising uptake across the UK of digital TV. Channel fragmentation presented a new challenge to Channel 4, which we discuss in more detail below.

4.2 Challenge ii: The digital revolution and channel fragmentation

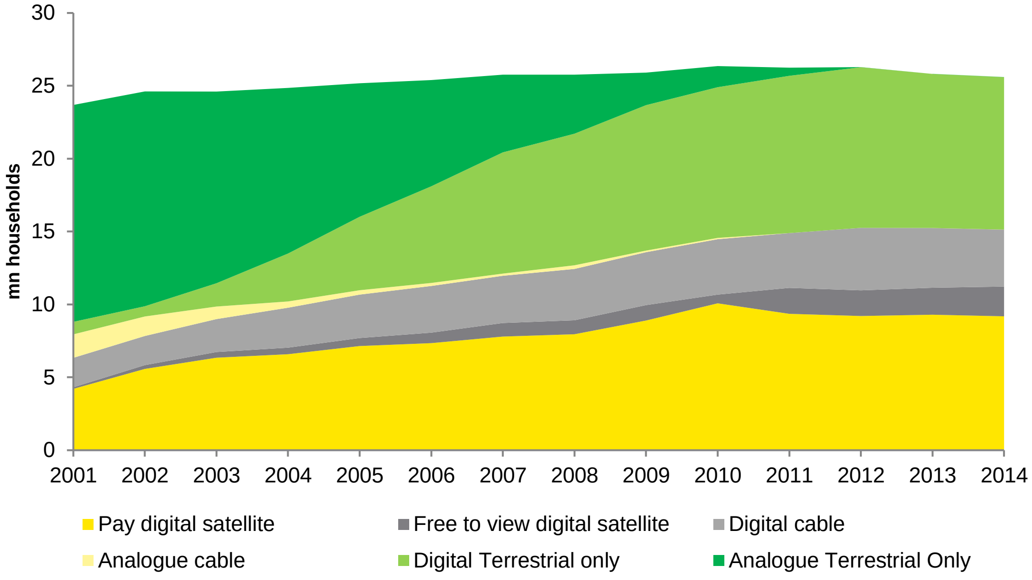
The UK has seen a mass transition from analogue to digital TV, and there is no longer any analogue television in the UK. DSO concluded in 2012, and – as a result – the digital revolution in the UK broadcasting is complete.

Digital TV is more efficient than analogue and allows the broadcast of multiple channels over the same bandwidth. As digital TV has been rolled out, more consumers have gained access to both pay and free-to-air multi-channel services, leading to viewing fragmentation, increased competition amongst broadcasters and mass proliferation of channels. There are now *circa* 536 channels across the UK, of which approximately 100 are free-to-view channels and owned by 31 different entities. This is a significant increase to the five free-to-air channels that were present in the UK little over a decade ago.

Most of the free-to-air original content is still delivered by the BBC, ITV, Channel 4 and Channel 5 – but players such as UKTV, Turner Broadcasting Europe, Discovery Networks Western Europe and Sony Pictures Television have also entered the UK free-to-air market since the switch to digital TV. Newer entrants to free-to-air TV, such as UKTV, have a distinct business model with most programming being 'best in class' content that has often been acquired (in UKTV's case from the BBC). That said, UKTV and other purely commercial, non-PSB players (such as Sky) have also increased their investment in original UK content.

As the UK has moved from the analogue to the digital TV world, TV platform mix has evolved as shown in the chart now, with DTT (Freeview) and pay-satellite (Sky) representing the largest TV platforms.

Figure 6: Platform take-up (2001 – 2014, mn households)



Source: Ofcom – The Communications Market Report 2015

By 2012, analogue cable and analogue terrestrial were removed nationally. This led to the exclusive availability of a multichannel service, taken up by the vast majority of households:

Table 1: Multichannel take-up (2001 – 2014, % of all households, including non-TV households)

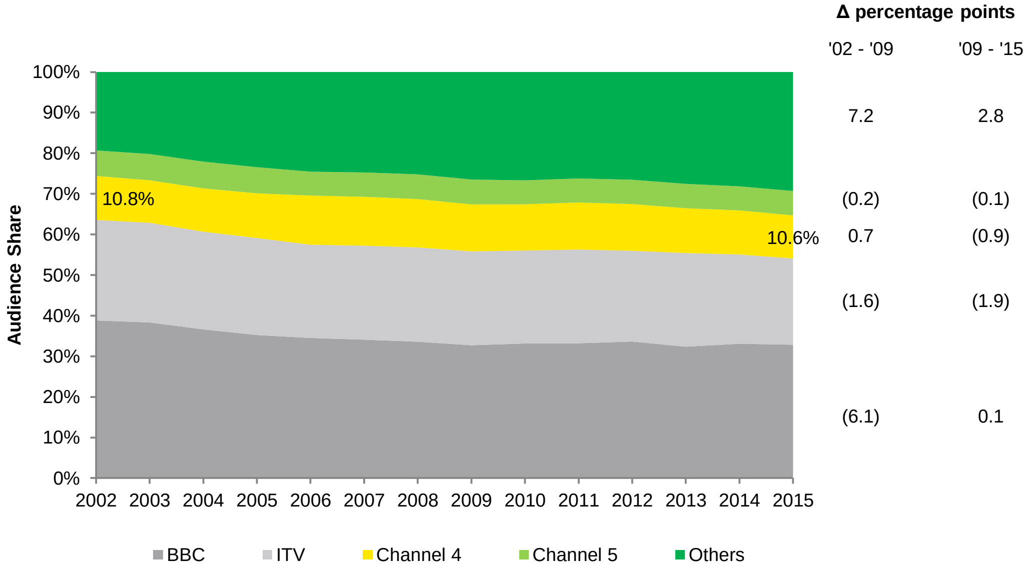
Multichannel take-up (% households)													
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
39%	39%	45%	53%	62%	69%	77%	84%	88%	92%	94%	96%	95%	93%

Source: Ofcom – The Communications Market Report 2015

Multichannel take up increased rapidly from 39% in 2001 to a peak of 96% in 2012, following the roll out of digital transmission. This has subsequently declined to 93%. This small decline is attributable to households who watch audio-visual content using an internet connection only, households who do not use a television, or households who use a television set that does not receive any broadcast signal.

Despite the roll out of digital television – and despite the erosion of non-PSBs into its audience share – Channel 4 has retained a high percentage of viewing.

Figure 7: Audience share by broadcaster portfolio (2002 – 2015, %)



Source: EY Analysis, BARB

As the chart above shows, from 2002 to 2015, Channel 4 lost 0.2 percentage points of portfolio audience share, which stood at 10.6% in 2015. Over the same time period, the BBC lost 6.0 percentage points and ITV lost 3.5 percentage points. These statistics demonstrate that, in absolute terms, Channel 4's viewing has adapted to the digital television environment world better than the other PSBs.

Channel 4's response to the digital revolution

Channel 4 demonstrated innovation throughout this period by creating a wide range of portfolio channels that engage customers in different ways and add value on top of the flagship channel. These portfolio channels have seen strong growth from 2004, offsetting the share decline of the main channel.

This broader portfolio has not only provided commercial benefits by removing Channel 4's reliance on the success of one channel, but has materially enhanced Channel 4's ability to achieve its remit of reaching distinct demographics of British society, which can now be accomplished simultaneously.

The portfolio includes the following channels, available as free-to-air services:

- **Channel 4+1** was launched on Freeview, Sky and Virgin simultaneously in 2007, offering a second chance to catch key broadcast content from the main channel via live TV.

- **E4** was launched in 2001 on Sky Digital and cable, and extended to Freeview in 2005. In 2014 it was the leading digital channel amongst the 16-34 age group, with a viewing share of 5.5% amongst the demographic[24]. The channel is successfully targeting younger audiences, helping to achieving Channel 4's remit of reaching these demographics.

[24] Channel 4 Annual Report 2014. Overall E4 is the fourth most popular channel for 16-34s, behind BBC 1 (13.6%), ITV (12.7%) and Channel 4 (8.0%)

- **Film4** was rebranded and rolled out to Freeview in 2006, having initially been launched as a subscription service. In addition to providing film content over free-to-air television, Film4 supports the independent film industry in the UK[25].

- **More 4** launched in 2005 as a channel focused on more mature audiences than E4. However, this has shifted more towards lifestyle based content since 2012, as Channel 4 adapted its content to focus more closely on its remit.

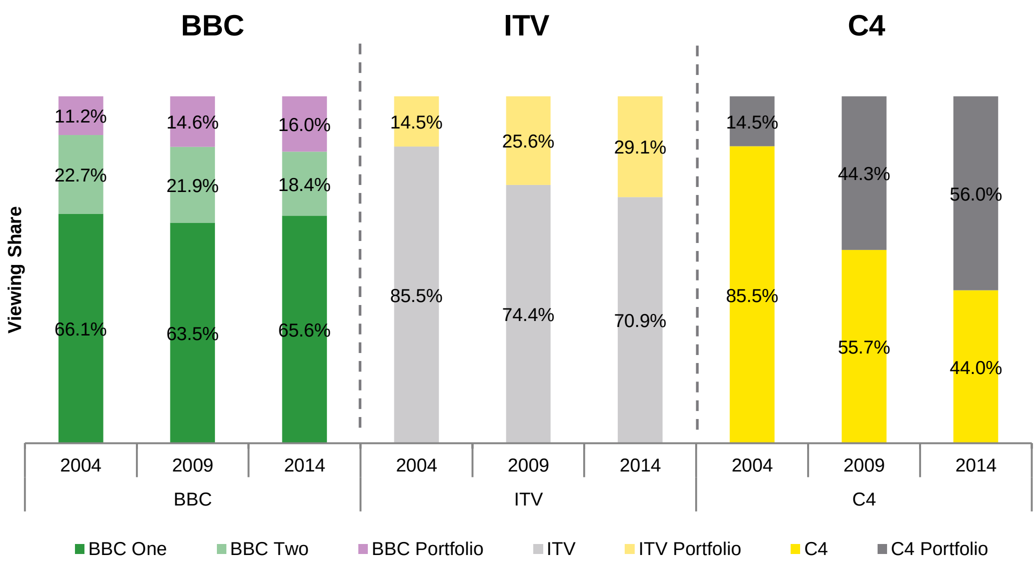
- **4Music** launched in 2008 as a joint venture with Bauer Media, providing popular music entertainment on free-to-air platforms whilst providing a platform for up and coming musicians.

- **4 Seven** launched in 2012, repeating the best shows from the previous day and allowing viewers the opportunity to catch up, despite having a Digital Video Recorder (DVR) or on-demand services.

In addition, and as noted earlier, HD versions of Channel 4, E4, Film4 and More4 exist as pay-TV channels. Viewing data shows that, whilst the Channel 4 main channel has steadily lost viewing share within multichannel homes since 2006, portfolio channels have grown their share over time, from 1.2% of total PSB viewer minutes in 2004 to 6.1% in 2014. Whilst the headline of lost viewership is negative, the direction of this change was an inevitable consequence of digital switchover. However, Channel 4 has adapted, creating a range of channels that broaden the range of content and choice available to UK viewers and ensuring Channel 4's portfolio viewing share has remained steady over time.

The effect of this evolution can be seen in the chart below: Channel 4's portfolio channels now account for 56.0% of its total viewing share. In contrast, ITV's portfolio viewing is less diversified, with 29.1% of its viewing from its wider portfolio, and ITV is therefore more reliant on the performance of the main ITV channel.

Figure 8: Evolution of PSB portfolio share (Total viewing share, %)



Source: EY Analysis, Ofcom – The Communications Market Report 2015

Channel 4 has therefore adapted its business to the digital television environment:

[25] Film4's investments in UK films over recent years have included *12 Years A Slave*, *Mr Turner*, *Four Lions* and *Slumdog Millionaire*.

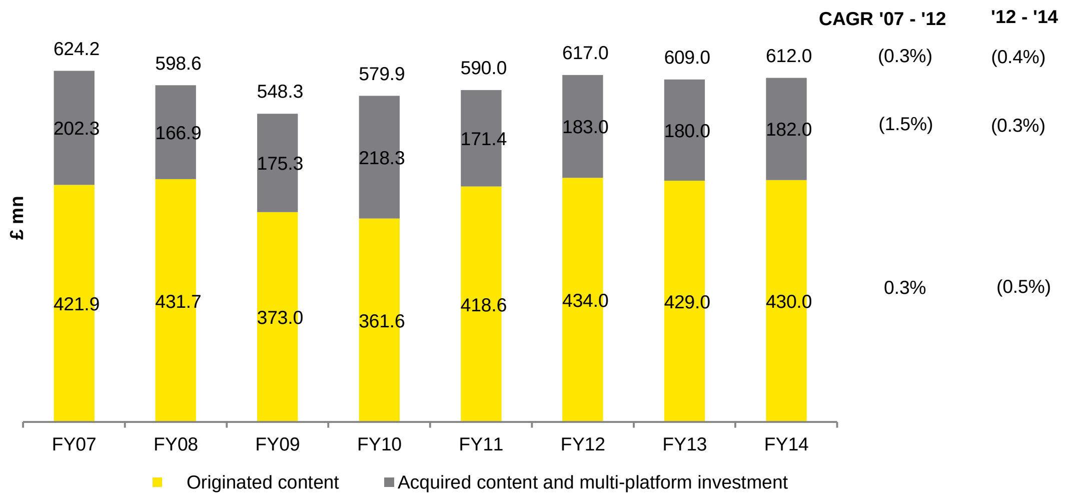
- It grew its channel portfolio to adapt to new viewing behaviour and to defend overall viewing share. Further, it joined the Freeview DTT joint venture in 2006, giving it a stake in what remains the UK's most popular television platform.

- Channel 4 worked effectively to implement DSO over the period 2007 to 2012 – contributing to the financing of the project, and managing the process in collaboration with other broadcasters and Arqiva.

- Channel 4 took a number of steps to enhance efficiency and stabilise the business – including reducing headcount and divesting non-core businesses.

- Over this period, Channel 4 continued to focus its business on content, maintaining a scale investment in content over DSO (as shown in the chart below).

Figure 9: Channel 4 content spend (FY07 – FY14, £ mn)[26]



Source: EY Analysis, Channel 4 Annual Reports

After successfully adapting to the increased competition brought about by the move from analogue to digital television, Channel 4 faced new challenges. As we discuss below, broadband technology evolved to enable online video delivery – potentially raising questions about the future of broadcast television.

4.3 Challenge iii: The rise of non-broadcast audiences to date

In recent years, video audiences have benefited from new technologies enabling greater choice and flexibility in their viewing habits. As consumers continue to lead increasingly busy lives, there is a demand for a more flexible – and increasingly mobile – service.

This presents three broad threats to live broadcast TV viewing:

- The rise of digital television has brought with it the roll out of Digital Video Recorders (DVR), enabling recording and time-shifted viewing of broadcast content. This has started a shift away from live TV, and resulted in ad-skipping.

- With the rise of wider broadband take-up and faster speeds in the UK, viewers have begun to consume video on-demand (VOD) from an over the top (OTT) online library rather than through a linear broadcast. This has evolved from the first UK PSB catch up services to the position where there are a number of well-known online-only subscription video on-demand (SVOD) providers – e.g., Netflix and Amazon Prime – who are

[26] 'Acquired content and multi-platform investment' includes 'programme and other content' costs from Channel 4's main channel, digital channels, 4 Rights, New Media and 'other' business operating units

relatively new to the market and are steadily increasing their penetration of UK video consumers. This has created new competition for broadcasters and may raise concerns over the long term future of linear TV

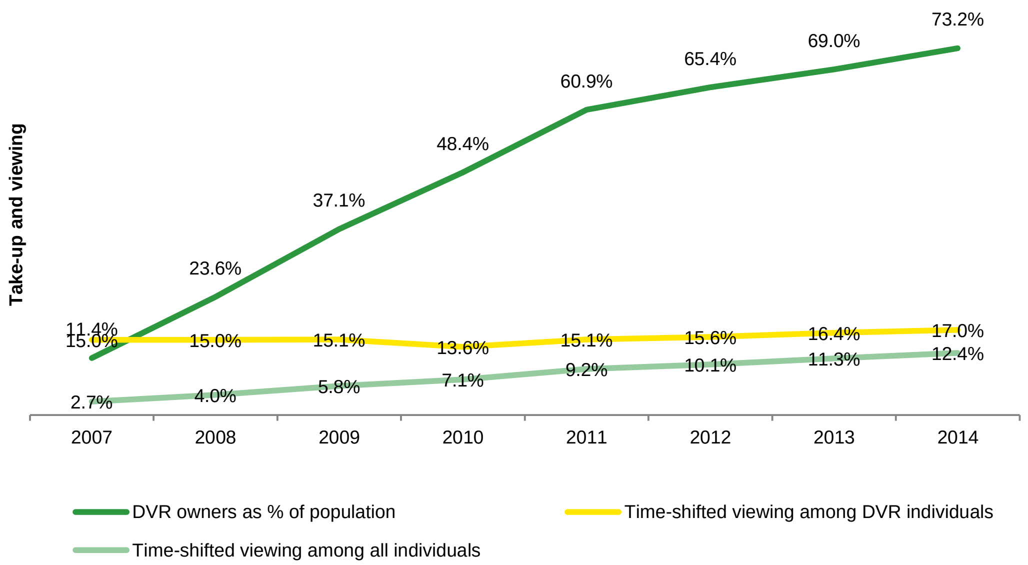
► The concerns around broadcast video are compounded by the uptake of mobile devices – tablets and smartphones – that make video more accessible. The long term impacts on viewing patterns are uncertain, and we address this issue in greater detail in Section 5, where we consider the potential future balance between viewing via TV and other devices.

Below we set out the evidence on the impact of these trends to date, and their implications for the future performance of Channel 4. The key finding is that, whilst new forms of viewing have undoubtedly had a significant impact on viewer behaviour, live linear viewing – the bedrock of Channel 4's business – remains very significant.

DVR take up and the beginnings of time-shifted viewing

DVR take up has increased in recent years following the initial launch of Sky+ boxes. The rise of digital television has brought with it the roll-out and take-up of DVRs across all pay and free-to-air platforms, resulting in an increasing DVR household penetration, from 11.7% in 2007 to a current level of around 75% of all households. This trend can be seen in the chart below.

Figure 10: DVR take-up & time-shifted viewing for all individuals and individuals in DVR homes (2007 – 2014, %)



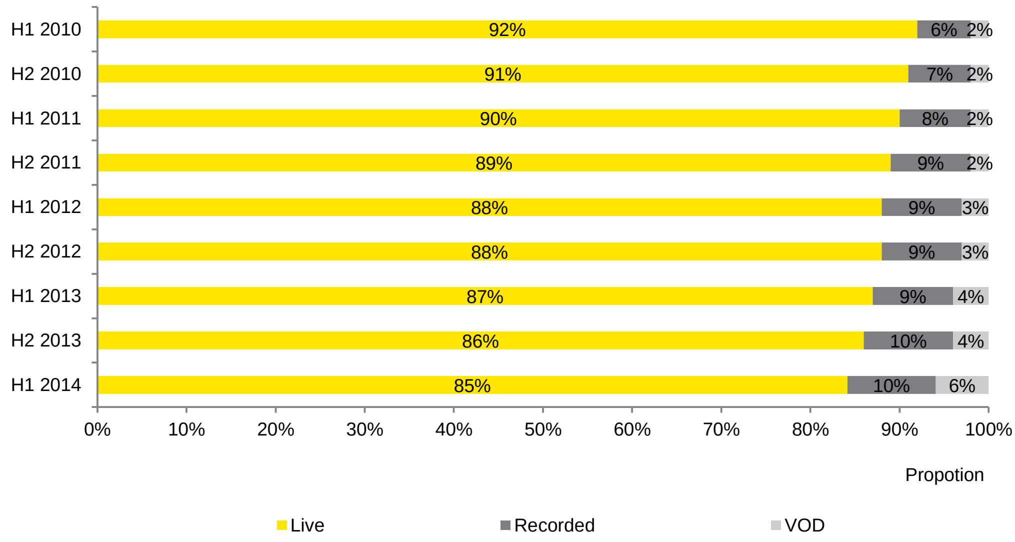
Source: Ofcom – The Communications Market Report 2015

DVR penetration increased significantly from 2007 to 2014. However, the amount of time-shifted viewing by individuals with access to a DVR device has remained fairly static, at around 15%. As such, the overall amount of time-shifted viewing is driven by increasing take-up of DVR players, and not by DVR-owning individuals changing their own habits to view more time-shifted TV. This implies that the current rate of 12.4% time-shifted viewing for all individuals is unlikely to grow significantly from its current position as DVR penetration stabilises. That said, we do note that the amount of time-shifted viewing in DVR households increased from 15% in 2007 to 17% in 2014 – if this trend were to continue upwards, the overall amount of time-shifted viewing would increase.

An increase in time-shifted viewing creates trade-offs for Channel 4: DVR viewing within seven days of the original broadcast counts towards Channel 4's audience share metrics (and so contributes to Channel 4's advertising revenues); but Channel 4 also potentially loses valuable commercial viewing through ad-skipping. That said, and as shown earlier, advertising revenues have remained robust, and have continued to grow in the recent period of DVR growth.

Of far greater significance to broadcasters is the rise of VOD viewing. The chart below shows the most recently available data from BARB / Ofcom showing an increasing viewership share of VOD over the last few years, when compared to live TV and DVR usage.

Figure 11: Proportion of all long-form AV viewing: Traditional TV viewing vs DVR and VOD (H1, 2010 to H1, 2014, %)



Source: Ofcom – The Communications Market Report 2015

Including VOD in the total of audio-visual viewing, we note that 85% of AV viewing is still via traditional linear TV, with DVR recorded viewing contributing 10%. As such, whilst SVOD players such as Netflix and Amazon Prime are increasing in popularity (and investing in original content – such as *House of Cards* on Netflix, and *The Man in the High Castle* on Amazon Prime), over 95% of all viewing is still to broadcast content.

This growth has been accelerated by an increasing roll out of smart devices, enhancing the accessibility of VOD services. According to Enders Analysis, c.73% of UK consumers have access to a smartphone, and 42% have access to a tablet as at 2015. This has increased from 49% and 17% respectively in 2012. This rapid growth has assisted the rise in on-demand television as viewers have access to video content on the move, and at home. The big concern for broadcasters is whether these devices will replace a traditional TV set and move consumers away from linear TV. We discuss this further detail in Section 5.

Channel 4 response to the emerging broadband revolution

Channel 4 was one of the first to the on-demand market, launching 4oD in 2006, the first time a major broadcaster made all its commissioned content available online. Ofcom data shows that the BBC iPlayer is the most widely used of the PSBs' online video services, with a reach[27] of 31%, but amongst commercial PSBs, Channel 4 and ITV's on-demand services broadly share second place, each with a reach of 15%, ahead of Channel 5 (with reach of 10%).

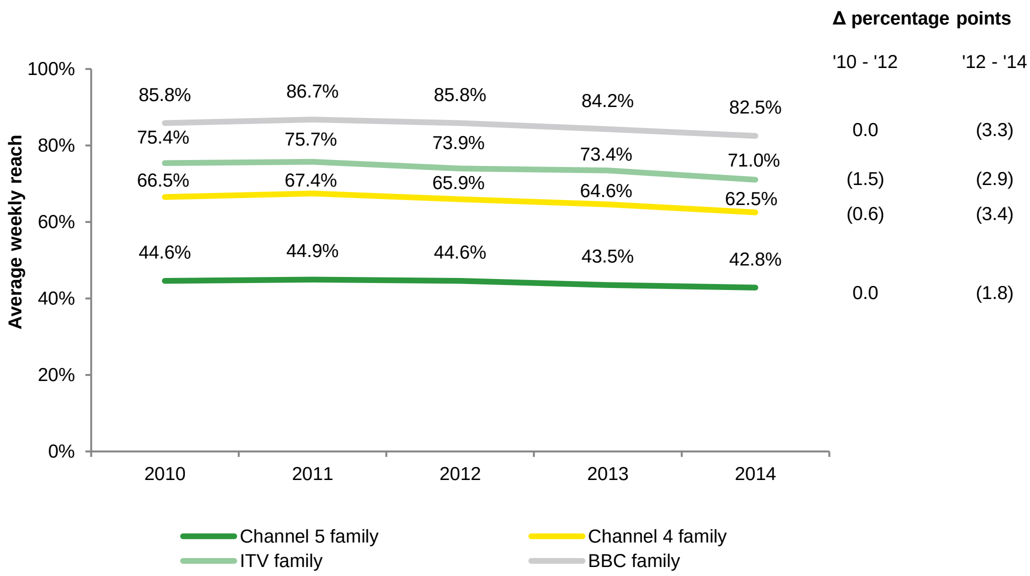
[27] Defined as the proportion of adults (15+) who have watched the broadcaster's VOD service in the previous 12 months. Applies to all devices.

More recently, Channel 4 has evolved its on-demand service into "All4", which replaced 4oD across all platforms in March 2015. All4 provides all of Channel 4's linear channels, digital content and other online services. Channel 4 aims to provide a personalised environment for its registered users, recommending shows which are likely to be of interest based on demographics and viewing histories. Channel 4 has invited online users to register, enabling it to capture viewer data. As part of this process, Channel 4 has accumulated around 13 million active registered users, including half of all 16 to 34 year olds in the UK. This has allowed Channel 4 to use this data as a means of delivering targeted advertisements, building brand loyalty and enhancing the monetisation of the service. Channel 4 has also moved to obtain demographic data on on-demand registered users which significantly enhance ad premiums as advertisers can better target their audience. This development means that Channel 4 is able to monetise viewing to both linear television and to its VOD service.

Further, Channel 4 has invested in connected joint ventures such as YouView and Freeview Play. By working with these platforms – in which it has an ownership share – Channel 4 is able to obtain viewer data and potentially enhance monetisation of linear TV in the future through the development of analytical optimisation and sophisticated dynamic ad insertion.

The shift to on-demand has led to lost TV reach for all broadcasters. The below chart outlines the average reach of broadcasters across all channels within their portfolios.

Figure 12: Average weekly reach of the PSB channel portfolios: All individuals (2010 – 2014, %)



Source: PSB Annual Report 2015 TV Viewing annex (published July 2015)

Channel 4 has lost reach of 4.0% of UK individuals over the last four years – with the majority of this loss arising in the last two years. Over the same period, ITV has seen similar declines in reach, with the BBC experiencing a lesser decline. There are two key reasons that may explain why Channel 4 appears to have struggled more than some of the other PSBs. In particular:

- **Viewer demographics** – Channel 4 has a higher proportion of viewers in the Millennials demographic. This younger demographic has been quicker to shift viewing habits to VOD.

- **Content shift** – Channel 4 has focused more of its airtime on less commercial shows that better align to its remit. For example, Channel 4 made the decision to no longer commission Big Brother after 2010, instead choosing to enter a period of "Creative Renewal" focussing on programmes that met Channel 4's remit.

We turn to each of these issues below.

Focus on the millennials – a key audience segment for Channel 4

One key audience, and of particular relevance for Channel 4, is the millennials. Millennials (aged 16 – 34) are more interested in new technology trends and unsurprisingly have shifted their viewing behaviours more than other audiences over the last five years.

The chart below shows the age profile of the five main PSB channels and across Total TV. We see that Channel 4 has the youngest viewer profile, and therefore is most likely to be impacted by changes in younger viewers' behaviour.

Figure 13: Age profile of viewers: Total TV and the five main PSBs channels (2014)

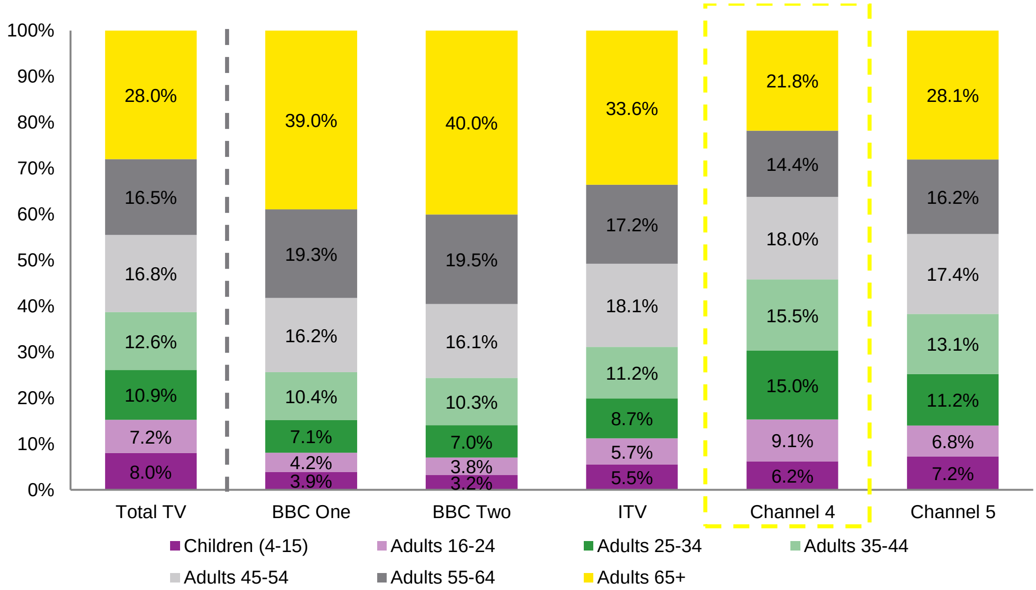


Table 2: Percentage of viewers below the age of 35 for total TV and each PSB channel

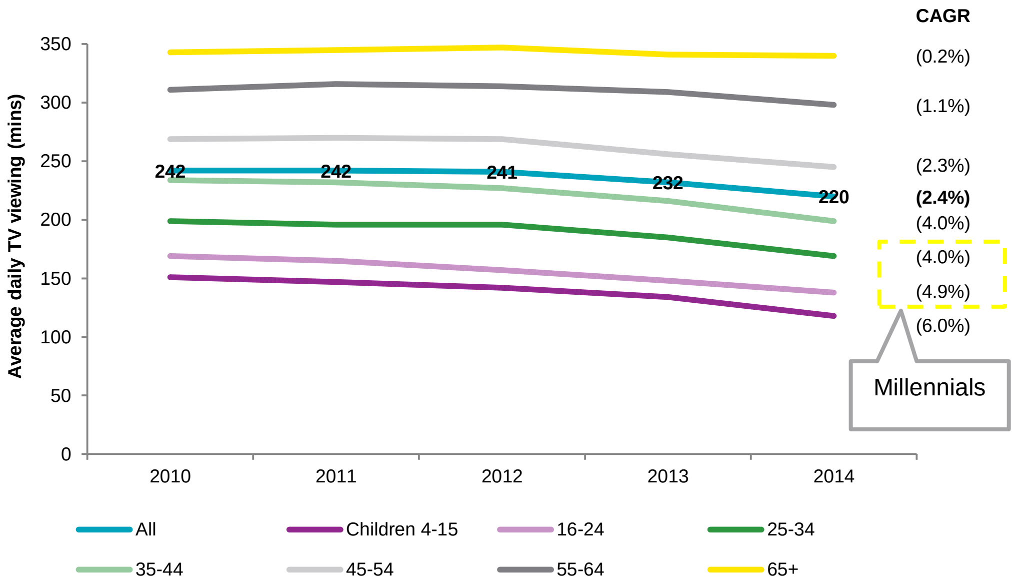
	Total TV	BBC One	BBC Two	ITV	Channel 4	Channel 5
2002 - 2009	26.1%	15.2%	14.0%	19.9%	**30.3%**	25.2%

Source: EY Analysis, PSB Annual Report 2015 TV Viewing annex (published July 2015)

Channel 4 is relatively more oriented to younger audiences, with 30% of its viewers below the age of 35 – in comparison to 14% on BBC One and 20% on ITV.

The chart below highlights how viewer habits of broadcast linear viewing have changed since 2010 by age group.

Figure 14: Average minutes of broadcast television viewing per person per day, by age (2010 – 2014, minutes)

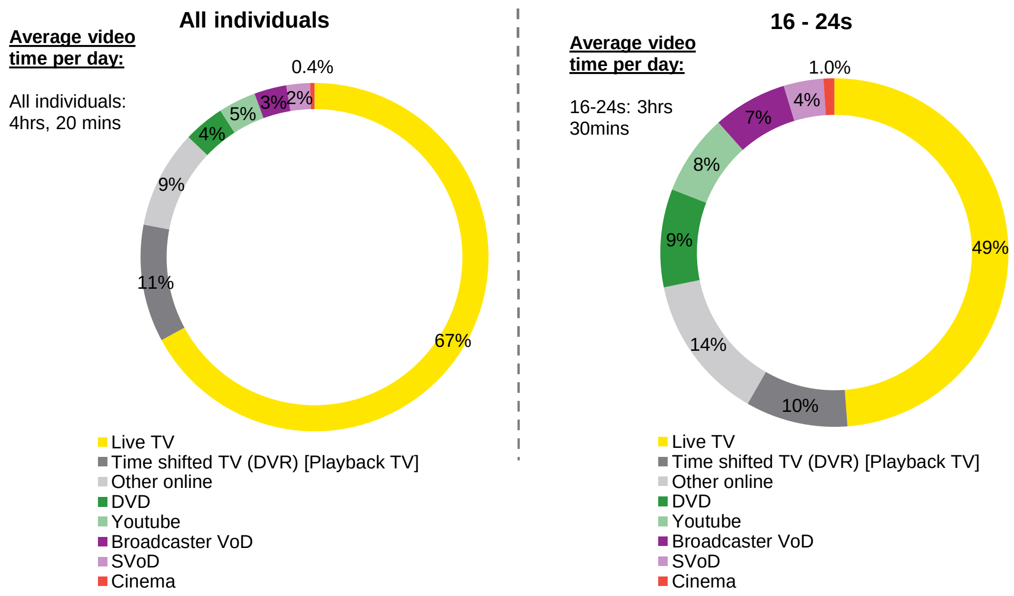


Source: Ofcom – The Communications Market Report 2015

The overall trend of a 2.4% per annum decline across the population is largely explained by an increase in VOD and DVR usage. Therefore, whilst total video viewing is not declining, the manner in which it is being consumed is changing.

We see below how younger people now consume video in comparison to the wider population – which shows that live viewing accounts for half of viewing by 16-24s, compared with two thirds of viewing across all audiences.

Figure 15: Average time spent consuming video (All individuals v/s 16-24's)



Source: Thinkbox – The truth about youth

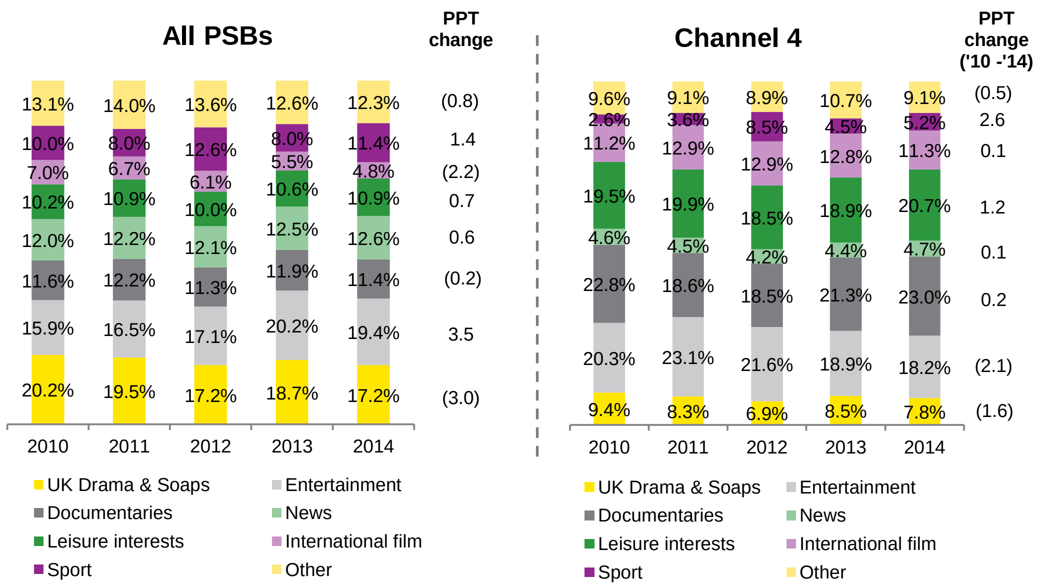
Channel 4's key demographics have seen the most dramatic shift in changing viewing habits, with all age groups below 34 declining by more than the average. This downward trend in television viewing amongst younger viewers is concerning for the future of broadcasters. A key question is therefore whether younger viewers' habits will remain as they are and flow through to older demographics as they age, or evolve as they age to fall in line with that of the older ages as they are presently outlined above. Further, today's youth could be replaced by new younger audiences, with equally (if not more) significant shifts away from linear TV. These are key topics to which we return in Section 5.

Content shift

It is worth considering how television has evolved over time and how Channel 4 has adapted to meet these new consumer trends, whilst increasingly working within its remit as a public service broadcaster.

The chart below outlines how viewing habits have shifted within the PSB environment, across the period 2009 to 2014. It is worth noting spikes in sport in 2010 and 2014 as Football World Cup years and 2012 as the year of the London Olympics and Paralympics.

Figure 16: Range of viewing by genre on the main 5 PSB channels (For all individuals for 2010-2014 (all day), LHS main PSB Channels, RHS Channel 4, %)



Source: BARB – Trends in Television viewing 2014 (published March 2015)

Comparing 2010 and 2014 we see that, across all PSBs:

- There has been some shift in viewing away from UK Dramas and Soaps, which see a 3.0 percentage point decline over the four year period.
- Entertainment has been the key beneficiary, with notable growth from 2012 to 2013 – with total growth of 3.5 percentage points in the four year period.

Contrary to the broader viewing trends across PSBs as a whole, Channel 4 has seen a reduced proportion of its viewing falling under the Entertainment category with rises in Leisure Interests and Sport.

This is likely to reflect efforts including Channel 4's "Creative Renewal" strategy, in which Channel 4 increased content investment in public service-oriented genres, after it ceased to carry Big Brother in 2010. The above data shows that 23.0% of Channel 4's viewing was documentaries in 2014, over double the PSB average of 11.4%. This content strategy has potentially cost Channel 4 viewers, with more commercially and economically attractive shows foregone in order to provide shows that deliver more public value to UK audiences.

4.4 Conclusions

This section has considered three different market shifts that have placed Channel 4's revenue streams and profitability under pressure:

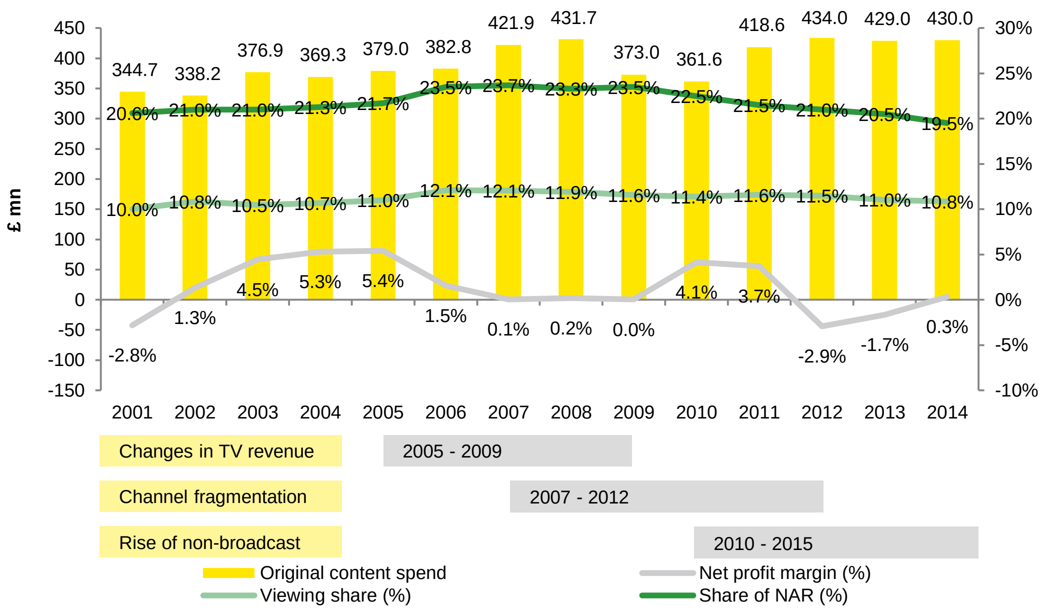
- ► The advertising revenue decline placed significant pressure on broadcasters, particularly those without another source of income – from licence fees or subscription fees. As such, the Channel 4 business model was put under notable stress.
- ► Further, shifts in advertising revenue and channel fragmentation placed further stress on the PSBs, with viewers taking the opportunity to change viewing habits away from the traditional PSBs.
- ► Finally, the last five years have seen the start of a shift away from linear viewing as a whole. Despite a decline in viewing numbers, advertising revenues have continued to rise, suggesting some robustness in the business model of commercial PSBs.

In the context of the above significant market changes, Channel 4 has maintained a sizeable investment in original content.

The chart below reproduces Figure 2, showing how Channel 4 has:

- ► Experienced growth in its share of a growing advertising market until 2007, followed by a fall in share to levels seen in the early 2000s.
- ► Maintained viewing share, despite a reduction in recent years following the threats of channel fragmentation and non-broadcast video.
- ► Continued to make a scale investment in original content, whilst remaining largely profitable. Whilst Channel 4 made losses in 2012 and 2013, these arose due to deliberate increases in content investment (as part of Channel 4's Creative Renewal strategy) after Big Brother ceased to be carried by Channel 4.

Figure 17: Channel 4 key metrics and overview of challenges over 2001 to 2014[28]



Source: EY analysis, company accounts, BARB/Infosys+, Zenith/Optimedia, Enders Analysis

[28] For the period 2001-2006, original content spend relates to the main Channel 4 channel only, as reported in the Channel 4 annual reports

Further, we have seen Channel 4 adapt to the changing trends in television:

- Cost-cutting across operations when advertising revenues fell in the late 2000s, allowing a return to profitability when revenues recovered.
- Survival through the move from analogue to digital television through innovation of new channels, appealing to various demographics, which now make up 56% of Channel 4 viewing.
- Launching online catch-up services, and enhancing and developing its on-demand proposition over time.

This demonstrates that Channel 4 has successfully adapted and evolved its business model to address changes in industry conditions that impact both short and mid-term profitability.

That said, there are increasing questions over the long term sustainability of the TV industry. Therefore before reaching conclusions on the long term sustainability of Channel 4, we need to consider the longer term future of the TV industry and its implications for Channel 4. This is the issue to which we now turn in Section 5.

5. Implications of future change for Channel 4

As set out in the previous section, the past ten years have been marked by very significant change in the UK broadcasting and audio visual content sectors. This change has inevitably impacted on the business models of the free-to-air broadcasters: these players, including Channel 4, have had to adapt to a world in which core viewing share has been declining, and in which there are increasing challenges to linear TV viewing. That said, and as we established in the previous section, Channel 4 has effected such adaptation and evolution, whilst maintaining a scale investment in original UK content.

This raises a key question about what the next ten years will bring, and addressing that question is the objective of this section. Below we consider the trends likely to have a significant impact on the UK broadcasting sector over the coming five to ten years, focusing on four key themes:

- Theme 1: Future developments in technology driving a proliferation in viewing methods.
- Theme 2: Future balance between broadcast and non-broadcast audiences.
- Theme 3: Future content investment in a changing competitive landscape.
- Theme 4: Future evolution of advertising markets.

We demonstrate in this section that change will continue to be significant, and may well create challenges for Channel 4. However, while risks will remain, on balance we consider that Channel 4's future is sustainable.

5.1 Theme 1: Future developments in technology driving a proliferation in viewing methods

The emergence of faster and more widely-available broadband, highlighted in Section 4.3, has opened up the opportunity for mass-market online content delivery, thereby enabling vast content libraries to be swiftly delivered to consumers on an on-demand basis.

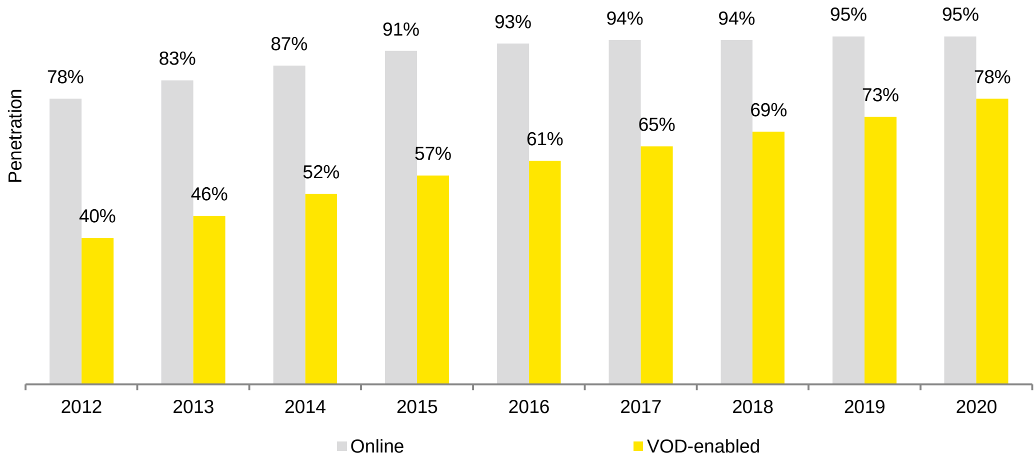
Therefore, before we consider the future changes in audience behaviour, we take a closer look at the developments in technology and consumer uptake that are enabling audiences to change their media consumption patterns.

Recent and future developments in non-linear video

Figure 18 sets out recent trends and forecasts to 2020, demonstrating how technology is being rolled out to consumers, enhancing choice and offering viewing options beyond broadcast television.

As shown below, take-up of VOD-enabled television sets is expected to increase further from today's level, with household penetration increasing to 78% by 2020 as broadband penetration nears maturity.

Figure 18: Penetration of online[29] and VOD capability[30] (2012 – 2020, % of total UK homes)



Source: Mediatique – The development of free-to-view television in the UK by 2024

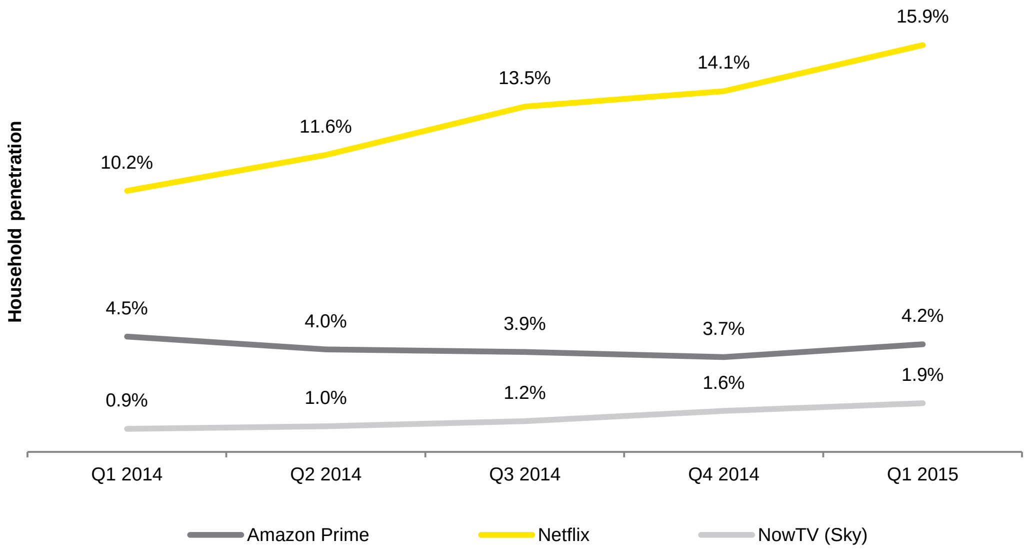
Further roll out of on-demand viewing services

Enabled by increasing broadband speeds and penetration, all the UK PSBs offer their own on-demand propositions, with Channel 4's 4oD (now All4) being the first of these to launch. These VOD services have evolved with technological improvements, with All4 starting to develop into a channel offering in its own right. The commercial PSBs can use data gathered from their registered VOD users to provide targeted ads, helping to monetise non-linear viewing. Channel 4 (along with other free-to-air broadcasters) also has the ability to cross-promote its on-demand service on its linear channels – helping to guide viewers to its content on all relevant distribution platforms.

The key online viewing competition to broadcasters comes from SVOD players who have entered the UK video market relatively recently and are quickly establishing a consumer base. The key players include Netflix (entering in 2012), Amazon Prime (formally Lovefilm, which was acquired by Amazon in 2011, and rebranded in 2014), and Now TV (a Sky product, launched in 2012). As shown below, Netflix has been the largest player to date, growing from 2.8m UK subscribers in Q1 2014 to 4.4m subscribers in Q1 2015 (penetrating 16% of all households).

[29] "Online" is defined in this chart to mean broadband coverage as a percentage of households. Ofcom estimates the UK's broadband penetration to be 82% of households in 2014.
[30] Households with a pull VOD-enabled TV set e.g., Connected Sky +HD box, Virgin Tivo, Freeview Play, Roku.

Figure 19: UK household penetration of VOD services (Q1, 2014 – Q1, 2015, %)



Source: Enders – Amazon Prime and the Video Market (June 2015)

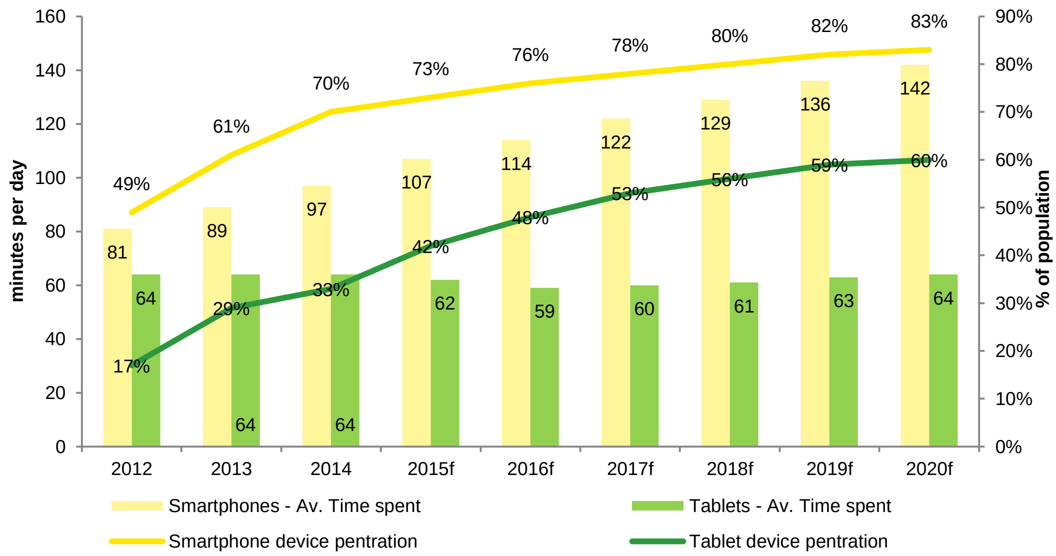
Evolution of devices

Video is still largely consumed on a TV set in a living room, and, with the number of TV licences rising year-on-year since 2011, more are paying for the right to view live television at home[31]. However, with the rise of new technologies, there are increasing levels of TV consumption on the move via mobile devices that complement TV viewing. As noted in Section 4, laptops, tablets and smartphones offer easy access to video and influence viewing trends.

However, as we see below, the rate of smartphone and tablet take-up is slowing, as the market reaches maturity. The chart below set out recent forecasts on tablet and smartphone roll-out.

[31] TV Licensing Annual Review 2014 / 2015. Under current legislation, a TV licence has to be purchased if a householder is accessing live TV through any distribution platform and on any device (including live TV watched over a broadband connection).

Figure 20: Average time spent and device penetration of Tablets and Smartphones (2012 – 2020)



Source: Enders - UK internet device and consumption forecasts (August 2015)

Smartphones are currently used by 73% of the UK population, and this is forecast to rise to 83% by 2020. Tablet penetration looks set to continue growing at a steady rate, though the amount of time spent by individuals is expected to stabilise. Therefore, the incremental impact of smartphone and tablet usage on television viewing may be limited in future. Further, with 49%[32] of mobile viewers saying that *"they only watch content on their mobile devices to kill time",* it would seem that mobile is a medium used for convenience when there is not access to another source of video. This, therefore, supports the view that linear TV viewing is likely to remain important in the longer term.

Additionally, recent developments in the TV industry are expected to enhance the viewing experience – such as ultra HD televisions; smart televisions and connected set-top boxes (including YouView and Freeview Play) enabling VOD consumption directly through the television set; and the launch of services such as Apple TV that enable content discovery and TV functionality to be controlled by voice.

Implications for Channel 4: Future technology developments

We consider that technological developments will continue to have a significant influence on the environment in which Channel 4 operates:

- ► Take-up of VOD services will continue to increase, albeit potentially at a slower rate than over recent years.
- ► Similarly, take-up of smartphones and tablets will continue to increase, but at a reducing rate as penetration of such devices reaches maturity. This may therefore limit their future impact on TV viewing.
- ► Further, developments in the consumer equipment industry – such as improvements in picture quality and internet connectivity – are expected to enhance the viewing experience.

[32] Mintel - TV Viewing Habits - UK - October 2015

5.2 Theme 2: Future balance between broadcast and non-broadcast audiences

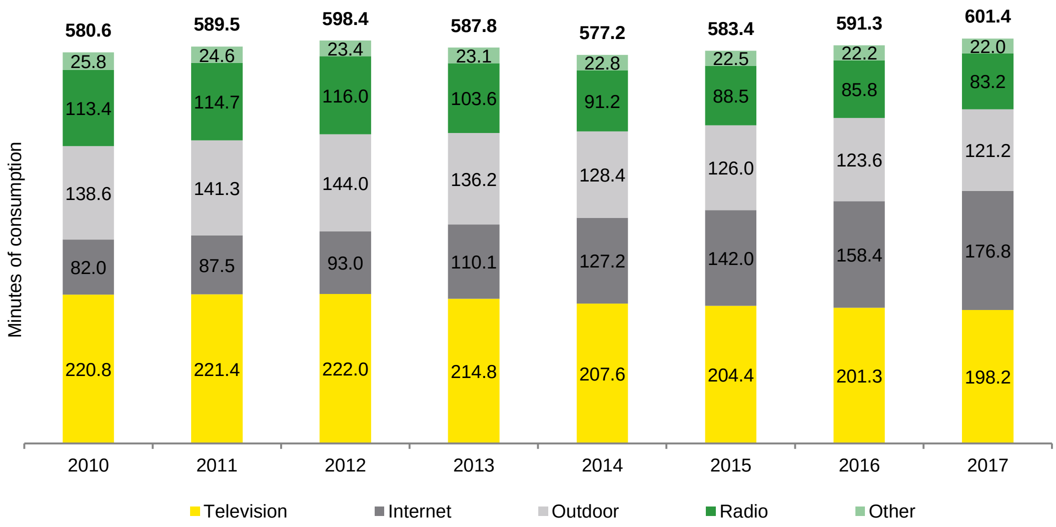
The rise of non-broadcast audiences could pose a threat to the future of television – particularly as the UK Government pushes to implement a universal service obligation (USO) for broadband. Below we consider this theme, considering potential future trends across wider video content viewing and the potential impact on broadcasters.

Limited evidence of a shift to non-video activities

Before considering the changing trends within video content consumption, it is important to understand the long term trends within video viewing. Audiences are changing their approaches to content consumption and engaging in new digital behaviours, with social media as a key example. As sources of entertainment, these new activities compete with video for consumers' limited free time. This creates a risk that video viewing could be eroded over time.

However, as shown in the chart below, overall UK media consumption is on a slight upward trend. Whilst the composition of media consumption is changing significantly – with a material increase in internet content consumption due to OTT viewing, and a slight decline in television viewing – there are no signs that video content viewing is likely to decline significantly.

Figure 21: Average daily minutes of media consumption per individual (2010 – 2017, minutes)

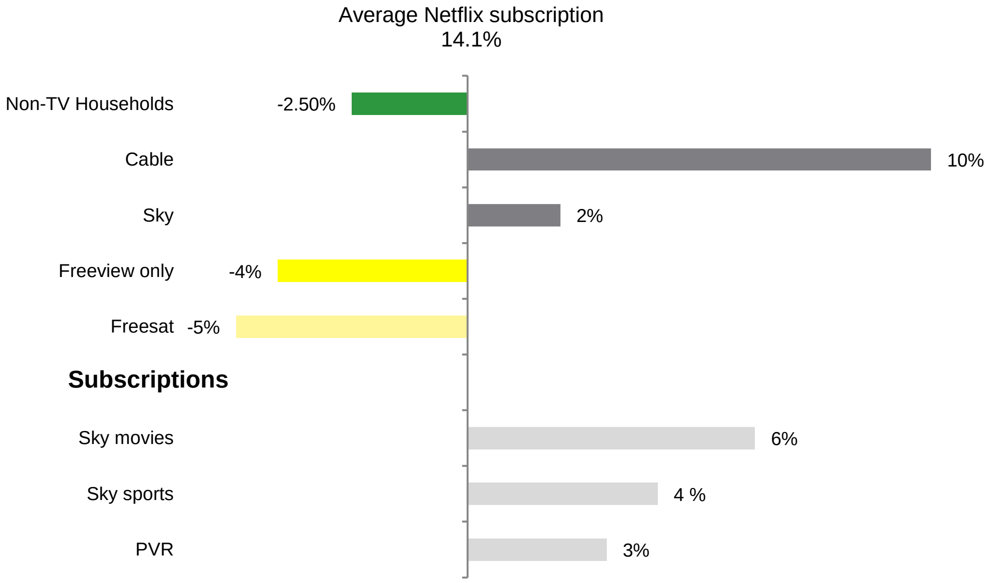


Source: Zenith Optimedia – Media Consumption Forecasts 2015 UK (June 2015)

Looking to the future, the above forecasts – as well as the developments noted below in non-linear viewing and short-form content – suggest that video content consumption will remain robust into the long-term. There is therefore little if any evidence of a future shift to non-video activities (i.e. outdoor, radio, other and internet activities that do not involve watching video content).

In order to further assess potential future trends, we consider that it is useful to segment consumers between those who pay for additional linear TV channels, and those who simply use the free-to-air service. The chart below outlines the propensity of a pay-TV user to purchase a Netflix subscription[33], compared to those who simply use free-to-air services.

Figure 22: Netflix take-up (pay-TV subscribers vs free-to-air only consumers, Q4 2014)



Source: BARB - The Viewing Report 2015

Netflix take-up stood at 14.1% of the TV viewing population as a whole in Q4 2014, with significant variation between pay-TV, free-to-air households, and non-TV households. Whilst 24.1% of cable users also subscribe to Netflix, 9.1% and 10.1% of Freeview and Freesat users respectively subscribe to Netflix. The non-TV households in this sample could be characterised as the "Digital Natives" – households that have chosen to consume all of their video digitally. However, interestingly, only 11.6% of these responded that they have subscribed to Netflix, suggesting a lack of interest in video content.

We can draw a number of key conclusions from this data:

- ► That those most likely to take up SVOD are current pay-TV customers, potentially posing less of a risk to Channel 4 and other free-to-air broadcasters.

- ► Further, the fact that pay-TV consumers have a higher propensity to take up SVOD services is likely to suggest that they view SVOD as a complement to linear TV services, rather than as a substitute. It appears that people who enjoy watching TV simply want more of it and are prepared to pay the extra cost for a wider choice of content.

- ► Households that have no TV (highlighted in green above) are less likely to have Netflix subscriptions than TV-owning populations. To the extent that these are "Digital Natives" or "cord cutters", we might expect Netflix take-up to be higher than the norm – but this fact may also represent non-TV owners' lack of interest in video content.

Whilst some video consumers may look to increase on-demand viewing in the future as such services evolve, as shown earlier the majority have already begun to use on-demand in some capacity. This adds to the argument drawn from analysis on pay-TV versus free-to-air households: on-demand appears to be complementary to traditional TV viewing, rather than a substitute. Whilst there may be some additional shift to on-demand as services are rolled out further, consumers are habitual and we consider that TV viewing will remain robust.

[33] Netflix has been chosen for this analysis, due to data availability. As the largest UK SVOD provider, EY considers Netflix to be broadly representative of the UK market

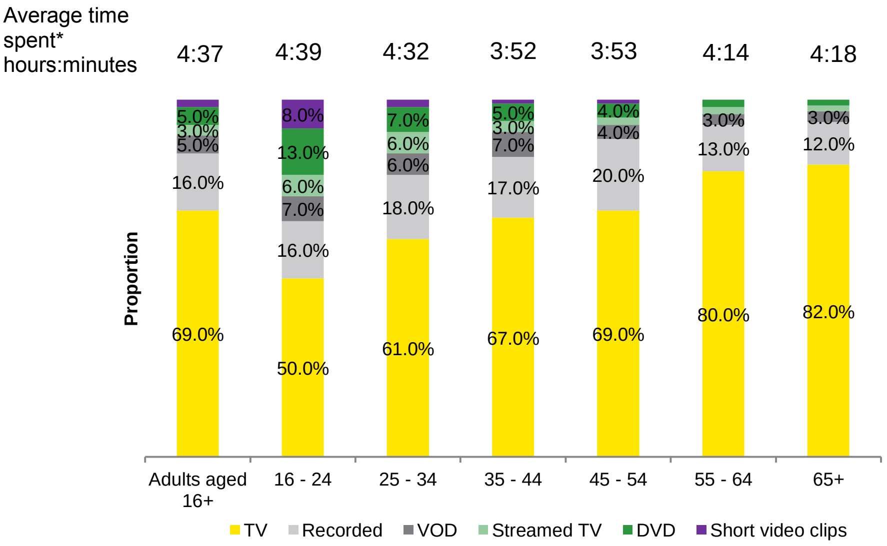
However, there is still concern that the behaviour of the millennial generation – having grown up with on-demand video – amounts to a structural shift, and so they may reject linear TV in the long run. This is the issue to which we now turn.

Will millennials grow into linear TV?

The shift away from linear has been led by younger age groups and, as highlighted in Section 4.3, is a possible contributor to Channel 4's decline in viewing share in the period 2006 to 2013.

Traditional TV viewing now only accounts for 50% of total video viewing by the 16-24 age group, compared to 69% for all adults aged 16+, demonstrating that younger audiences exhibit different behaviours compared to the other age groups. This is shown in the chart below.

Figure 23: Proportion of watching activities by age (% of viewing time)



Source: Ofcom – Digital Day 7-day diary (2014)

*Survey base: 16-24 (101), 25-34 (255), 35-44 (348), 45-54 (400), 55-64 (311), 65+ (259). *Average time spent is the total average daily time spent watching media, including simultaneous activity. Labels for less than 2% removed*

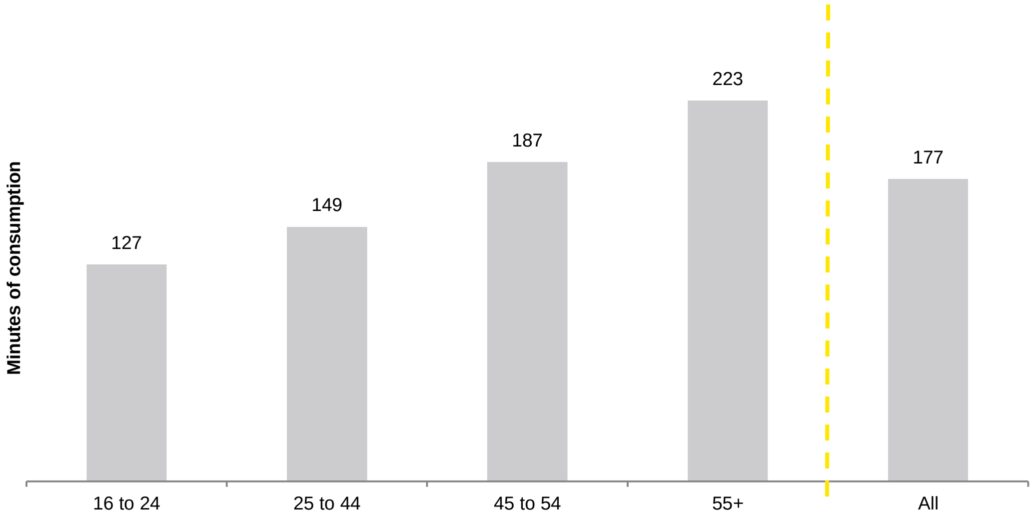
Younger age groups naturally tend to have more varied viewing habits compared with adult average. Further, the last economic recession has appeared to have impacted social decisions – with younger viewers now living with parents for longer and having children later in life than previous generations. For instance, 26% of millennials still live with their parents (up from 23% in 2008), and 36%[34] of adults aged between 25 and 34 own their own homes in 2013–2014, down from 67% in 1991.

The net result is that live TV viewing for 16-24 year olds stands at 50% of total time spent consuming video (down from 71% reported in 2010[35]). Younger audiences watch more DVDs and short form clips, which have seen far less penetration into the viewing habits of other age groups. The viewing habits chart shown above also shows that VOD takes up a similar proportion of viewers' time across age groups, suggesting that VOD has been taken up by a broad cross-section of the UK population.

Drawing on the data outlined before, the figure below shows the absolute time spent viewing television on a daily basis, for different age groups.

[34] Mintel – Lifestyles of Millennials – UK – October 2015
[35] Ofcom – The Consumer's Digital Day – December 2010

Figure 24: Average daily minutes of television viewing by age group (2014, minutes)



Source: EY Analysis, Ofcom Digital Day 2014

We can see that linear TV viewing is significantly lower amongst younger age groups in the UK – albeit we saw earlier in Figure 23 that 16-24s spend more time watching audio-visual content than other age groups. However, whilst millennial viewers are growing up in an age with new devices and new forms of content consumption, it is difficult to conclude they will abandon live TV altogether, in favour of alternative technologies. For instance, and as shown in the chart above, millennials continue to watch a material amount of live TV, and are attracted to the UK broadcasters' on-demand services (with over 50% of 16-34 year olds registered with All4, and c. 45% registered with BBC iPlayer). Even for 16-24s, Figure 23 shows that two-thirds of viewing is to broadcast content (i.e. 50% of all viewing is linear, and a further 16% is to recorded broadcast content), and in addition a portion of VOD viewing will be to content from the free-to-air broadcasters.

Still, commentators disagree when attempting to forecast the future viewing habits of the current younger audiences:

- For instance, a recent study by L.E.K. of UK millennials' media habits by life stage brings out notable findings. First, it suggested that millennials' viewing habits stay broadly consistent as they age. Second, millennial behaviour was found to be viral, spreading to non-millennials and older generations. Finally, L.E.K. was surprised to find that the changes in habits both took place faster, and were more pervasive, than originally thought.[36] L.E.K. therefore concluded that the change in media consumption is coming faster than previously thought, meaning industry participants will have to adapt quickly in order to continue to attract younger audiences.

- Research firm Enders Analysis, on the other hand, forecast that some of the new media consumption behaviours will "fall away", as millennials move up the life stage ladder.[37] This is supported by the Institute of Practitioners in Advertising (IPA) research[38] into media consumption, which found that 25-34s with children watch significantly more live TV (and less VOD) than 25-34s without children – life stage therefore does appear to have an impact on TV viewing behaviour. Further, Enders' research found that the "explosive impact of smartphones, tablets, apps, and social networks" was likely to have

[36] L.E.K. Consulting – Perennial Millennials: A Viral Phenomenon – London – January 2016
[37] Enders Analysis – Will the young of today ever turn to trad TV? – London – January 2016
[38] IPA Touchpoints 6 research, 2015

reached its limits, with further change in viewing habits forecast to take place at a much slower pace. Such research therefore supports the view that TV viewing habits will not change materially going forward.

Our overall assessment is that the evidence on future viewing behaviour is mixed, and there is inherent uncertainty in this area. As millennials age, we consider it likely that social and economic changes to their lifestyles will lead to a higher propensity to view linear television – albeit it is unlikely that levels of TV viewing will increase to the same extent to match and replace the habits of past generations. That said, we cannot discount the possibility that today's young audiences – which are of disproportionate importance to Channel 4 – will continue to shift away from broadcast television, with adverse consequences for free-to-air broadcasters. Further, today's youth may be replaced by new younger audiences, with equally (if not more) significant shifts away from linear TV. The future viewing of younger audiences therefore poses potential risks to free-to-air broadcasters, including Channel 4.

Content curation and discovery

Search and discovery have evolved in recent years. Historically, PSBs have benefitted from consumers having a relatively limited channel choice, often channel-surfing before selecting the best option available and, without detailed programme information; this decision was based on a degree of trust in the broadcaster.

Subsequently, digital television increased the importance of Electronic Programme Guides (EPGs), which list and help guide viewers towards linear channels. Further, the regulatory regime in relation to EPG prominence has allowed the main PSB channels to benefit from high EPG positions, aiding navigation to linear PSB channels in an increasingly competitive broadcasting environment.

More recent developments have brought about new and innovative means of aligning consumers with the content they most desire, and as a result the role of curator is more important than ever to help audiences pick their favourite content. Viewers can now select their channel and method of delivery based on the quality of the content – with the ongoing popularity of the PSBs' content, both on linear television (as shown in Section 3.2) and on-demand (as shown in Section 4.4), indicating continued trust in broadcaster brands.

The proliferation of VOD has also demonstrated that there is increasing customer loyalty that is rooted in the quality of the recommendation a curator presents. For example, as mentioned earlier, nearly all SVOD players like Netflix and Amazon Prime have their own proprietary algorithms that recommend content to viewers based on past behaviour, while popular video websites like Devour focus on handpicking every video that features on their website. As the technologies evolve, there is likely to be increased competition among broadcasters and platform providers in guiding consumers to the best content in the most efficient manner, which may create future challenges for navigation and discovery of PSB content.

It is worth noting that Ofcom is aware of the challenges such developments might create for availability of PSB content, due to the growth of content aggregators such as YouTube, which makes it more difficult for PSB channels to maintain their current large audiences. The current rules on PSB prominence were designed for a TV-only world. Ofcom has responded by suggesting an update of the framework under which Channel 4 operates, seeking to ensure it can meet the changing media consumption habits of younger audiences. For example, Ofcom has recommended that PSB on-demand players should also receive prominence, stating[39] that, *"If PSB is to be 'maintained and strengthened' as set out in the statutory duty, policy-makers should give further consideration to reforming the rules that guarantee appropriate prominence and access to public service content on catch-up players for all PSB channels."*

[39] Ofcom – Public Service Broadcasting in the Internet Age - 2015

Changing consumption trends

Consumers' habits change continuously across all markets, with media and content no different. We need to consider how consumers' content preferences are likely to evolve, and what this might mean for future content investment by UK broadcasters such as Channel 4.

Whilst consumers are watching more non-linear content, we have seen that linear TV still predominates. It is useful in this context to understand how and why viewers choose between watching TV live or on-demand.

Research from Thinkbox explains this notion, by identifying six need-states ("unwind, comfort, connect, experience, escape and indulge") that drive different forms of TV viewing[40]. The research found that live TV is able to deliver against all of these factors across the schedule as a whole, especially allowing individuals to socially connect and gain a sense of comfort – leading to consumers preferring to watch sporting events, news, and their favourite TV shows live as opposed to time-shifted. This habit has remained consistent over time, as live event shows provide a better viewing experience in a social environment and popular dramas (e.g., Game of Thrones) are more susceptible to spoilers.

The research also reveals that VOD excels at satisfying personal approaches to TV, specifically indulging and escaping, but it is less equipped for more social needs as unwinding and seeking comfort. The findings were supported by the finding that, for 54% of the occasions respondents watched live TV, they were with someone else, compared to 30% for VOD. Consumers therefore typically prefer to use VOD for premium content, documentaries, old content or video clips – but mainstream, collective viewing, appears to be better served by linear TV.

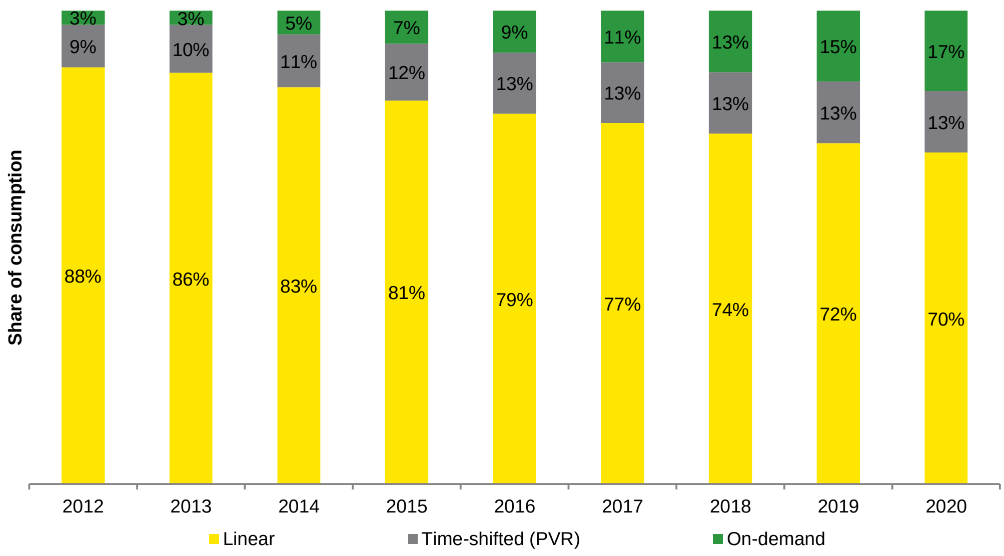
Linear TV's resilience is thus partly explained by VOD fulfilling a somewhat different need to linear TV, and we consider that there is limited evidence that UK VOD viewers will shift significantly away from live broadcasts and UK content. PSBs' on-demand services, focusing as they do on UK content, will continue to be important for the UK audience. This is supported by the fact that, out of the top 100 programmes in 2015, ranked by impacts per hour, only two were foreign acquisitions[41] (Brave and The Outcast– shown on BBC One).

We also note that the most popular genres for VOD are films, UK dramas, followed by UK TV comedy and documentaries as opposed to US-based content. The top three most popular VOD players are BBC iPlayer, ITV Player and 4oD[42] and the top 10 shows watched across all VOD services were UK originated content such as EastEnders and Sherlock, highlighting the popularity of UK-originated content that is relatable for most Britons[43]. VOD therefore enables consumers to access live TV programmes at their convenience, with 68% of TV VOD and 61% of online VOD being used to catch up on missed programmes due to the high quality content available on most British channels.

As a result of the developments set out above, it is likely that linear share will continue to be eroded by on-demand and time-shifted viewing. That said, the chart below shows analysis from Mediatique, who forecast that linear TV will remain important until at least 2020, with broadcast (including time-shifted) TV representing 83% of consumer video time in 2020, albeit down from 94% in 2014. We see no evidence to suggest a radical drop-off in broadcast viewing after 2020.

[40] Thinkbox - Screen Life: TV in demand
[41] Channel 4 – Viewer minutes by programme, all TV – Jan-Dec 2015
[42] Ofcom - Communications Market Report 2014
[43] BARB - TV Player Report_03 Jan 2016

Figure 25: Share of viewing hours by consumption type (2012 – 2020, %)



Source: Mediatique – The development of free-to-view television in the UK by 2024

Further, as noted in Section 3 above, the recent international spectrum negotiations (WRC-15) concluded that DTT should continue to have access to spectrum until at least 2023, and Ofcom has concluded that the DTT platform (which is core to Channel 4's viewing) – and therefore, by extension, linear TV – will remain important to UK viewers until at least 2030. Therefore, both UK and international policy bodies accept that linear TV will continue to remain important for viewers.

Fragmentation of video form (long-form vs short-form)

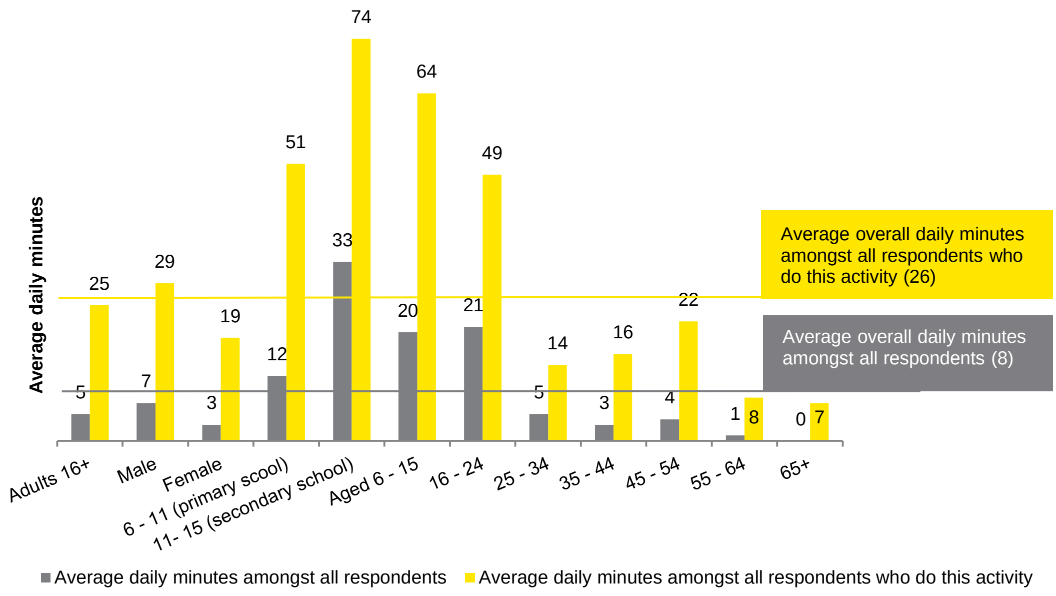
It is also useful to consider whether viewers will shift away from long-form content, towards more short-form material. Short-form is a term generally applied to videos less than ten minutes in length. Shorter video forms are increasingly found on social media platforms and instant video streaming sites – spanning genres, though most commonly music, film, sport and news. The increasing take-up of short-form content is of potential interest to both broadcasters and advertisers, as a new source of viewing and revenues.

We note that short-form content is better suited to smaller devices than TV sets, and is often used as a time-filler rather than in a concerted effort to view video. With 75% of the UK's population already consuming content on a range of screens (not just the TV), exposure to online video has been and continues to be on the rise[44]. The average length of an online short-form video is 4 minutes[45], a figure possibly skewed by the popularity of listening to music on platforms such as YouTube.

There are a number of short-form content providers – ranging from dedicated websites such as YouTube and Vimeo, to PSB websites that provide short targeted content related to a specific topic, e.g., a news article. The chart below shows how short-form viewing breaks down by age group across all these content providers, including content watched on social media sites.

[44] Anytime, Anywhere. Measuring Today's Digital Video Consumer. ComScore, 2015.
[45] Digital Future in Focus UK. ComScore, 2015.

Figure 26: Daily minutes of viewing short-form video (minutes)



Source: Ofcom - The Communications Market Report (August 2015)

Notes: Short form includes short online video clips such as YouTube along with social media sites

Viewers of short-form video in the UK (c. 57% of all adults according to the Ofcom Communications Report 2015) watched just under half an hour of short-form video a day on average in 2015. Younger daily users (i.e., those between the ages of 6 and 24), however, showed a significantly higher propensity towards short-form content, having watched upwards of 49 minutes of short-form video a day. Therefore the key question is what will happen to this younger generation's viewing habits as they age, and whether this poses a threat to long-form, and linear TV viewership. With demand for short-form video growing, it is useful to consider whether this is likely to be a substitute to traditional long-form content.

Whilst short-form content viewership has increased in recent years, Ofcom has found that long-form content viewership has also increased, by 42 minutes[46]. Thus, this suggests that short-form content viewership could be considered to be additive to long-form. These changes can be attributed to the fact that, while consumers still enjoy watching their long-form content of preference, they are watching short-form content more as it is better suited to 'on the move' viewing on smaller devices, such as smartphones.

Facebook and YouTube have been the primary sources of the increase in short-form video viewership. Additionally, short-form content on PSB channel websites is also on the rise. With short-form video seemingly additive to long-form content, this increase should actually increase opportunities for PSB channel websites. We note in this regard that Channel 4 offers short-form videos through its Shorts offering, and so it is seeking to meet audience needs for both long-form and short-form content.

Implications for Channel 4: Future viewing behaviour

We expect future changes in viewing behaviour to have the following implications for Channel 4:

[46] EY Analysis, based on Ofcom - Digital Day 2014. Extracting the percentage of linear TV and the percentage of time spent consuming non-short form video implies an increase in long form viewership of 42 minutes, largely due to increased video viewership noted in the survey

- Linear television will continue to be important to UK viewers – this is positive for Channel 4's core broadcast offerings.

- Within linear TV, the Channel 4 core channel's share is stabilising, with its share of viewing actually increasing in 2015 for the first time in a decade. On a portfolio level, Channel 4 has maintained its viewing share through the process of digital switchover. We therefore expect linear viewing to continue to be important to Channel 4.

- Evidence suggests that viewers also prioritise live TV over on-demand – with 73% of viewers scrolling live TV before using on-demand.

- Within VOD, whilst we see risks that SVOD could change UK viewing habits, there is limited evidence that UK VOD viewers will shift significantly away from UK content such as that provided by Channel 4. Further, although the consumption of short-form content is increasing, especially amongst younger viewers, there is no evidence to suggest it is at the detriment to long-form viewing.

- New search and discovery methods will continue to evolve, potentially creating challenges to the ease of navigation to content from Channel 4 and other public service broadcasters – that said, the thrust of policy in the UK is to seek to aid navigation to public service content on-demand, with potential change to the EPG prominence rules under consideration, and we expect the PSBs' brands to remain important to viewers.

- There are inherent uncertainties in how VOD services will develop in the long run. Overall, we consider that VOD will continue to be complementary to linear TV viewing over the next 10 years.

- That said, we cannot discount the possibility that today's young audiences – which are of disproportionate importance to Channel 4 – will continue to shift away from broadcast television, with adverse consequences for free-to-air broadcasters. Further, today's youth may be replaced by new younger audiences, with equally (if not more) significant shifts away from linear TV. The future viewing of younger audiences does therefore pose potential risks to free-to-air broadcasters, including Channel 4.

- Within the on-demand space, there are potential opportunities for Channel 4. We understand that Channel 4 is evolving its All4 on-demand offering, moving it from a catch-up service to a channel offering in its own right. Channel 4 (along with other free-to-air broadcasters) also has the ability to cross-promote its on-demand service on its linear channels – helping to guide viewers to its content on all relevant distribution platforms.

5.3 Theme 3: Future content investment in a changing competitive landscape

The way consumers watch audio-visual content has changed following the increasing availability of on-demand services. The rise of VOD has further intensified competition for premium content, potentially pushing up content prices. This could place pressure on broadcasters who need to attract increasingly demanding consumers requiring top quality content – leading to the hypothesis that this content may become subject to inflationary pressures.

Content spend escalation by international owners
In this context, it is useful to consider whether international players active in the UK market may look to increase content spend in the future. In recent years, the UK broadcasting market has seen some notable activity by the large US media companies:

- The £450m acquisition[47] of Channel 5 by Viacom (a US-based media network comprising of entertainment brands such as MTV, Nickelodeon, Comedy Central) in 2014, marking the first US acquisition of one of the core five PSB channels in the UK

- 50% acquisition of UKTV by Scripps (a US TV content company) for £339m in 2011, who have subsequently reportedly offered £500m to complete the takeover[48]

- Whilst there has been no confirmed activity, there has been speculation of a takeover bid for ITV by players such as NBC Universal or Liberty Global – with the latter becoming the largest shareholder in ITV with 9.9% share of the company[49].

These examples, alongside Discovery network's acquisition of free-to-air channels across Europe and Scripps' acquisition of Polish TV Operator TVN, highlight the growth and diversification strategy being employed by US-media players who, facing revenue pressures from online players such as Netflix, see the European markets as attractive alternatives.

Whilst these acquisitions show confidence in the sustainability of European broadcasters, more pressure is placed on their competitors. With increasing levels of purchasing power, these broadcasters may be able to offer higher bids for content – potentially increasing prices.

We note that, with the backing of Viacom, Channel 5 may be better placed to compete more effectively for expensive programmes such as *Gotham* (a big-budget crime series based on *Batman* characters) for which Channel 5 is reported to be paying approximately £500,000 per episode – a strategic move to increase its young viewership which will compete against Channel 4 and ITV for content[50].

With content a key driver of viewers and thus advertising revenue for commercial UK broadcasters, it is notable that Viacom has stated that it will significantly increase Channel 5's £200m annual programming budget, with a greater focus on creating original and premium shows that can be distributed worldwide.[51] The backing of Viacom may also enable Channel 5 to attract quality content and negotiate rights to the content more favourably, due to the distribution scale of Viacom in the US which still represents the largest market for TV producers[52].

This trend of acquisitions by large US media players could potentially adversely impact Channel 4 as quality content may become more expensive and US-owned players could gain viewing share at Channel 4's expense. This therefore represents a potential risk, to which we return below.

[47] http://www.bbc.com/news/business-27240335
[48] http://www.theguardian.com/media/2014/jun/26/bbc-offer-uktv-scripps-gold-dave-watch
[49] http://www.theguardian.com/media/2015/jul/31/liberty-global-itv-stake-takeover-virgin-media
[50] Telegraph, 'Viacom chief ready to tune into growth on Channel 5', http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/11157926/Viacom-chief-ready-to-tune-into-growth-on-Channel-5.html, accessed 13-Jan-16
[51] The Guardian, 'Viacom to increase Channel 5 budget', http://www.theguardian.com/media/2014/may/02/viacom-channel-5-budget-increase, accessed 13-Jan-16
[52] Telegraph, 'Viacom chief ready to tune into growth on Channel 5', http://www.telegraph.co.uk/finance/newsbysector/mediatechnologyandtelecoms/11157926/Viacom-chief-ready-to-tune-into-growth-on-Channel-5.html

The future of BBC funding

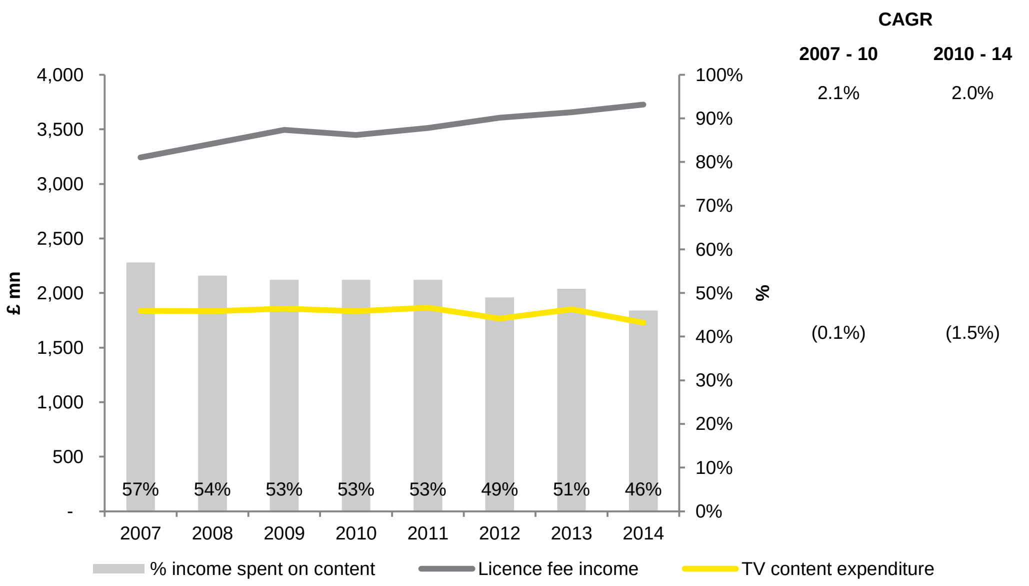
Outside of the commercial broadcast sector, the BBC Charter Review process is currently ongoing, exploring the BBC's mission and purpose, its scale and scope, internal governance and the level of public funding. Current indications are that the BBC is likely to remain licence fee funded during the next Charter period, with an outline licence fee settlement announced by Government in July 2015. The BBC is therefore likely to remain a significant investor in original content.

Total PSB investment in first-run UK originations remained broadly flat in nominal terms over the period from 2004 to 2014, and hours of first-run UK originations remained steady.

However we note that recent years have seen significant real terms reductions in original TV content investment all PSB channels. In real terms, in 2004 the UK PSBs spent £3.3 billion on first-run original TV content – this had fallen to £2.5bn by 2014, a reduction of 25%.

This has been associated with the BBC spending a lower proportion of its licence fee income on content, which has fallen over the last seven years, from 57% to 46% (as shown in Figure 27). Further, the BBC has also announced the closure of BBC Three as a linear channel, and moving to an online model for BBC Three in future.

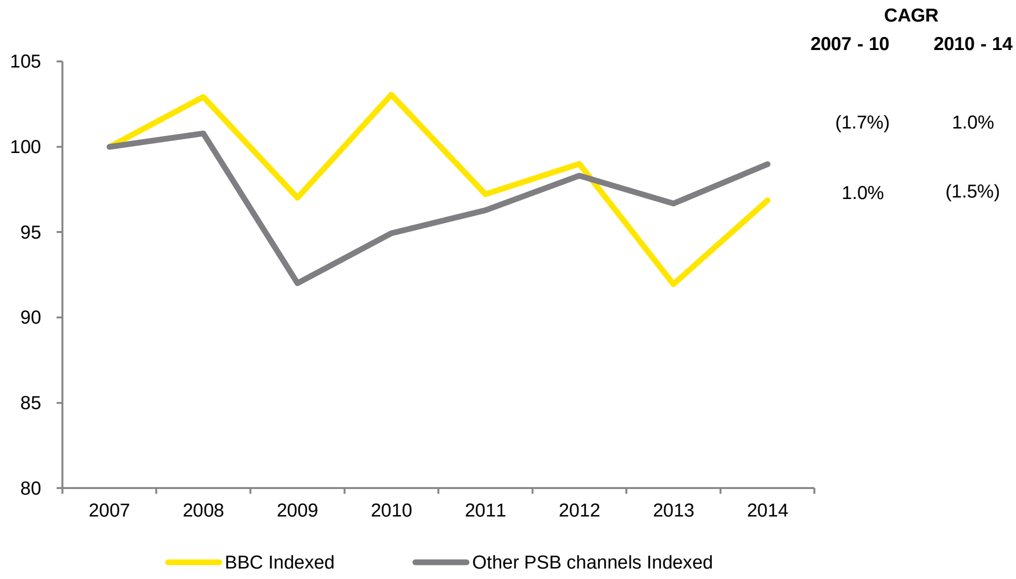
Figure 27: Licence fee income, content spend and % of income spent on content (nominal terms, 2007 – 2014)



Source: EY research, BBC annual reports

At the same time as reductions in BBC content spend, other PSB channels experienced a reduction in content expenditure due to the declining advertising market – which has since recovered – with content spend partially recovering with it.

Figure 28: Indexed TV content expenditure by BBC (including portfolio) vs all other PSBs (2007 – 2014)



Source: EY Analysis, Ofcom Communications Market Report 2015

Note: Data has been obtained from Ofcom Communications Market Reports and therefore due to reporting time differences, data appears to differ from figures obtained from BBC Annual reports displayed above.

In the event that the new licence fee settlement and outcomes of Charter Review lead to reduced content spending by the BBC in the future, this may reduce the incentives for competing players to maintain content investment. For instance, if BBC programming investment declines, ITV and Channel 4 may not need to spend as much on content in order to compete with the BBC – potentially easing the competitive environment in which Channel 4 makes content investment decisions, and therefore potentially making necessary investments more affordable.

Consolidation in TV production and potential vertical integration

Whilst digital television and broadband developments have seen broadcasters facing new pressures with increasing choice for consumers, broadcasters have also seen the supplier side change following mass consolidation of production companies.

Recent years have seen significant growth and consolidation amongst production companies, with many of the UK's larger production companies now owned by non-UK players and vertically-integrated with broadcasters. Such shifts could have an impact on Channel 4's relationship with its supplier base.

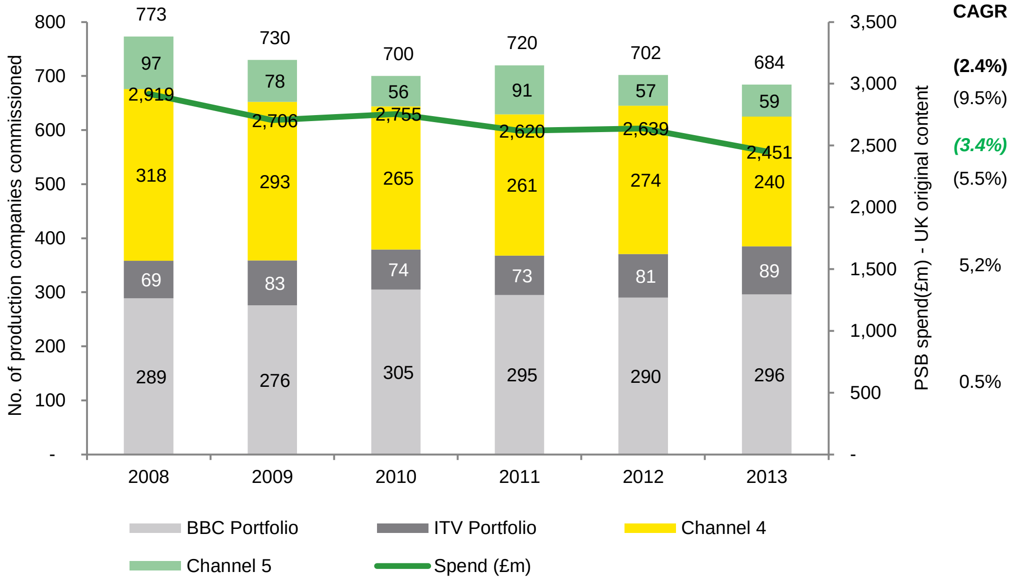
These acquisitions have changed the British TV ecosystem and could create risks to the profitability and purpose of UK PSBs in two key ways:

► With a reduced number of suppliers following consolidation, UK PSBs could suffer from a combination of price increases and rights withholding as global right owners drive harder bargains for access to their intellectual property.

► With more power in the relationship, larger production companies (known as "Super-indies") may be better positioned to reject PSB requests to commission important public content that is potentially less commercially profitable. If consolidation were to lead to a reduction in availability of public service content from external producers, this could adversely impact on Channel 4's remit delivery.

Whilst content costs might increase if consolidation amongst content producers leads to reduced competition and diversity of supply, our analysis suggests that PSBs do not appear to have suffered to date – and there is no indication that consolidation will adversely impact on Channel 4's ability to meet its remit. Indeed, the value of a significant and successful PSB commission on driving the value of secondary rights[53] means that PSBs remain the prominent commissioners of UK originated content.

Figure 29: Number of independent television production companies commissioned by PSB networks[54] vs PSB spend on UK original content (excluding news and sport), (2008 – 2013)



Source: Channel 4 Annual Reports, EY Analysis

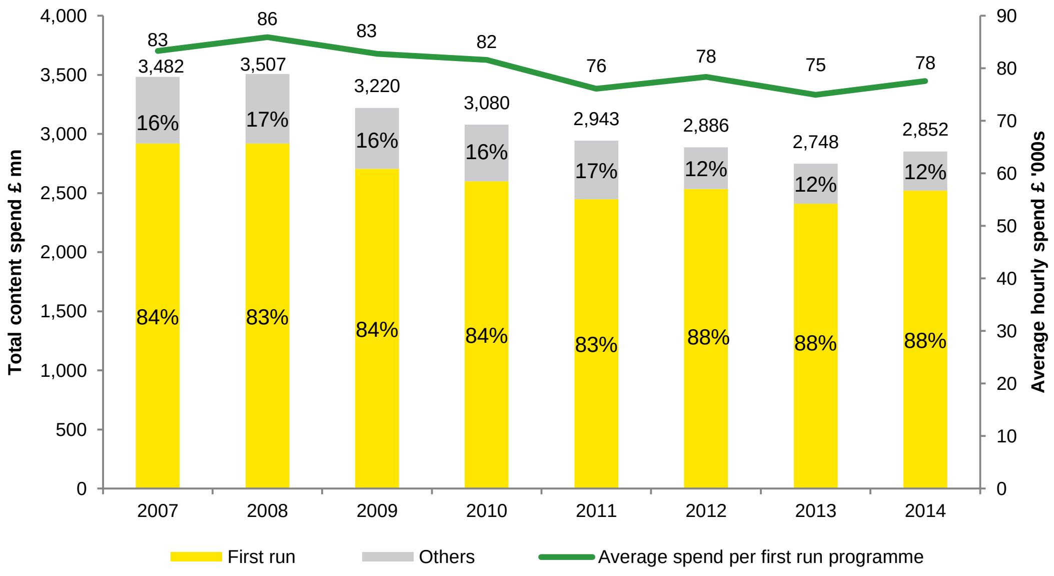
Along with a 2.4% year on year fall in the number of commissioned production companies in the UK from 2009 to 2013, PSB spend on UK original content has also dropped by 3.4% year on year (although as shown in Figure 2, Channel 4's original content spend increased over this period). Given that the amount of hours of original television content has not been declining, this suggests that commissioning costs have not been increasing. Assuming there are no major changes to these trends, Channel 4 appears to be at little risk of a significant increase in costs.

Implications for Channel 4: Future content investment

Overall, we consider there to be a range of future developments relating to the future of content investment. Whilst there has been significant change in the content investment environment, the chart below shows that – when considered on a cost per hour basis – the costs to broadcasters of original content investment have not risen.

[53] e.g., international distribution; secondary broadcast within the UK (both linear and (S)VOD); consumer products
[54] In 2014, Channel 4 worked with a total of 338 companies across TV, film and digital media

Figure 30: PSB content spend, first run and other



Source: EY Analysis, BARB – Trends in Television viewing 2014 (published March 2015)

Since 2008, total content spend by PSBs has fallen year on year until 2013, with a slight increase in 2014. At the same time, the cost per hour of original content has trended downwards since 2007 – there was a slight increase in 2014, but this remains below 2010 levels. We therefore do not see evidence that the costs of content will increase significantly for Channel 4.

Further, we expect that UK content will continue to be important to UK viewers – meaning that Channel 4's commissioning activity is likely to be attractive to UK audiences, with SVOD services likely to complement the UK content carried by Channel 4. That said, there is a potentially greater risk associated with international players' entry into the UK broadcast market – for instance, if Viacom successfully attracts more viewers to Channel 5 through increases in the programme budget and subsequent developments in curation policy, Channel 5 could gain viewers at the expense of other broadcasters (including Channel 4). This development therefore creates a risk of a more intense competitive environment for Channel 4's programme investment decisions – requiring Channel 4 to increase programme spend in order to continue to compete.

That said, the BBC Charter Review process could also impact on the content investment environment. In the event that the new licence fee settlement and outcomes of Charter Review lead to reduced content spending by the BBC in the future, this may reduce the incentives for competing players to maintain content investment. For instance, if BBC programming investment declines, ITV and Channel 4 may not need to spend as much on content in order to compete with the BBC – potentially easing the competitive environment in which Channel 4 makes content investment decisions, and therefore potentially making necessary investments more affordable.

5.4 Theme 4: Future evolution of advertising markets

Wider performance of TV advertising versus digital

We noted in Section 4 that TV advertising revenues have been volatile, but have grown robustly over recent years. When looking to understand the future of TV advertising, it is important to consider past challenges the TV industry has faced when competing within the broader advertising markets that include Internet, Print, Mobile and others (e.g., Radio). The last ten years saw a dramatic transformation with the rise of digital advertising online, potentially placing pressure on the traditional mediums of television and print.

Given the changes to the advertising market and the growing strength of internet display advertising over the past ten years, as a possible demand-side substitute for TV advertising, it is useful to consider whether the current definition of the market for UK TV advertising has now changed – i.e. in a strict economic sense, it is useful to consider with what forms of advertising TV advertising competes.

In 2011, Ofcom reviewed the TV advertising market as part of its consultation on a potential reference to the Competition Commission regarding the UK TV advertising trading mechanism. As part of this consultation, Ofcom reviewed previous decisions regarding the market for TV advertising, particularly those of the Competition Commission. Ofcom noted that previous investigations into the market had always found TV advertising to be a separate product market from other advertising media, and Ofcom noted that was partly due to the particular product characteristics associated with TV advertising. For example, Ofcom highlighted that, *"a clear feature of TV advertising was that it was able to combine sound and moving pictures in a way that other media for the most part could not or could not in a way that was considered to exert a competitive constraint on the pricing of advertising"*[55], and that, *"TV typically generates an emotional attachment in viewers that is difficult to replicate with other media"*[56].

In Ofcom's Statement[57] in December 2011, it concluded that the relevant market was for TV advertising in the UK. It reached this conclusion on the basis that, at that point in time, there was not sufficient evidence to conclude that internet display advertising was a current close demand-side substitute for advertising on television. For example, Ofcom found that:

- Internet display advertising accounted for a *"relatively small proportion of the expenditure on all display advertising"*[58] limiting its ability to constrain TV advertising prices.
- Ofcom considered – in terms of product characteristics in 2011 – that, because the internet did not offer the mass, broad demographic appeal of television, its ability to constrain TV advertising was limited.
- Ofcom also considered the impact that a lack of standard reporting in the internet market had in terms of acting as a constraint, and suggested that the ability that TV had to provide more accurate audience measurement meant that the two were less likely to be considered substitutable.
- Ofcom further suggested that past reviews and discussions with stakeholders had tended to suggest that the TV and internet advertising were considered more complementary to each other rather than substitutable.

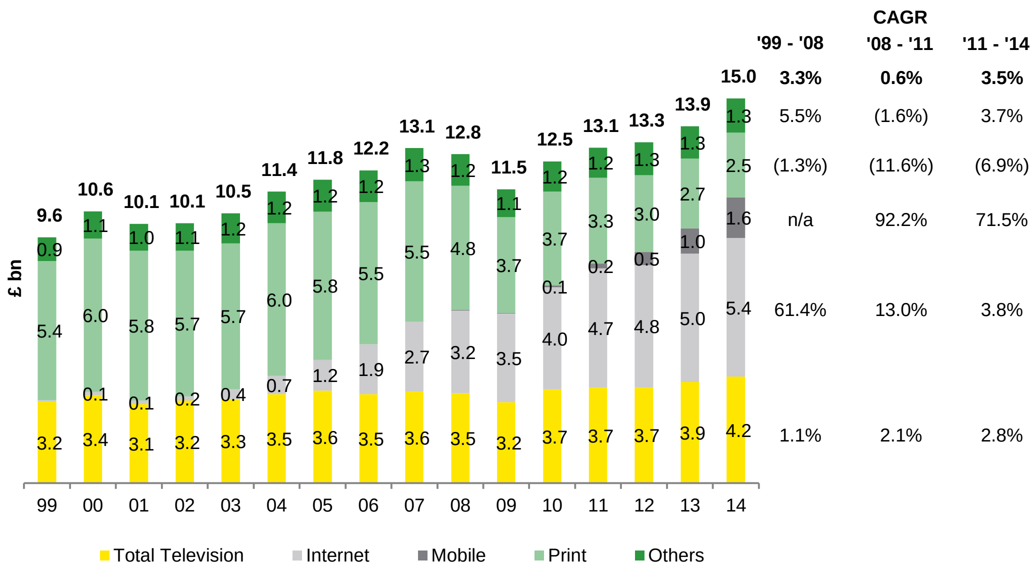
[55] Ofcom, 'Competition issues in the UK TV advertising trading mechanism – Consultation on the potential reference to the Competition Commission', published 10 June 2011, paragraph 4.29 http://stakeholders.ofcom.org.uk/binaries/consultations/tv-advertising-investigation/summary/TV_advertising_MIR.pdf
[56] Ofcom 2011 Consultation document , paragraph 4.30
[57] http://stakeholders.ofcom.org.uk/consultations/tv-advertising-investigation/statement
[58] Ofcom 2011 Consultation document , paragraph 4.32

However, in its analysis, Ofcom recognised that – in the medium to long term – the product characteristics of TV and internet advertising had the potential to become closer, and so become demand-side substitutes. As part of this forward look, Ofcom considered that:

- Developments in measurement systems for internet advertising would improve and offer more sophisticated tracking, thus increasing the ability for advertisers to switch between different mediums.
- Penetration of broadband internet would continue to grow, increasing the range of audiences that will have access to internet display advertising.
- Growth in online consumption and the success of social media sites in attracting large audiences may increase the use of display internet advertising over time. However, Ofcom noted in its report that the main growth engine over the next 5 years was for internet search advertising rather than internet display.
- With internet penetration growing, consumers would regard television content delivered by different delivery platforms as increasingly interchangeable, thereby increasing the scope for supply-side substitution and so widening the product market definition.

Although it has been four years since Ofcom's review, and internet advertising as a whole has continued to grow, the different product characteristics identified by Ofcom still appear to be relevant. The analysis below considers the ongoing robustness of TV advertising; why this trend is continuing; as well as discussing why potential substitution away from TV advertising is unlikely. As such, there appears to be limited current evidence to depart from Ofcom's 2011 conclusions.

Figure 31: UK total display advertising (1999 – 2014, £ bn)



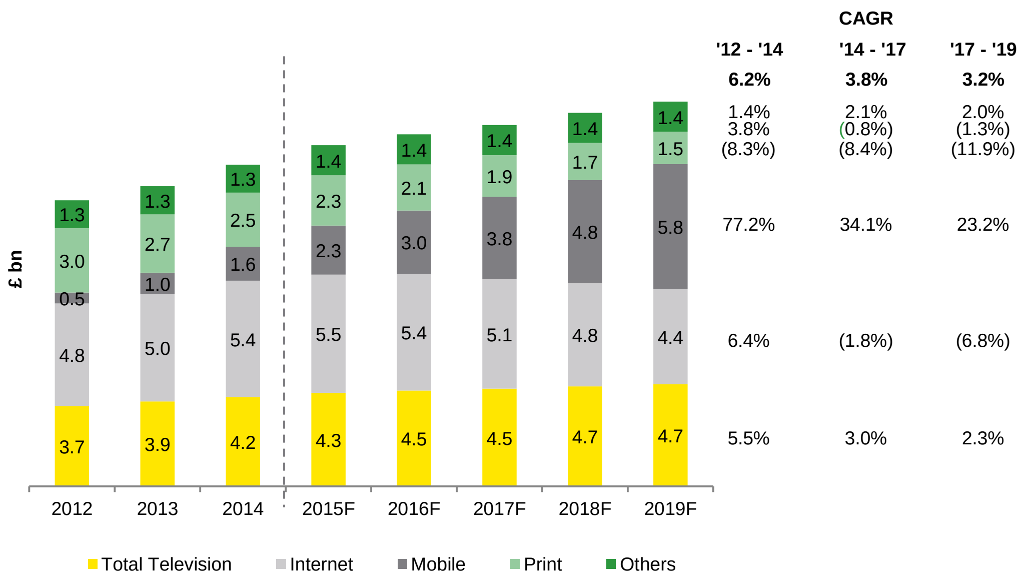
Source: EY Analysis, Magna Global

Data from Magna Global shows the significant decline in print revenues, suffering at the hands of internet advertising, declining by 11.6% per annum from 2008 to 2011 and 6.9% from 2011 to 2014. Meanwhile, TV advertising revenues have grown steadily post 2009, with 2.8% per annum growth from 2011 to 2014. The growth of internet advertising (including VOD) therefore appears to have adversely affected print, rather than broadcast TV.

Amongst the factors that explain the continued robustness, we note the potential offsetting pricing impact of a decline in commercial impacts[59]. Specifically, whilst TV advertising revenues fell 11% from 2003 to 2011, commercial impacts rose 28%[60]; subsequently, as TV advertising revenues rose by 6% to 2015, commercial impacts have fallen by 2%. This inverse relationship suggests that TV advertising revenue can be maintained even whilst commercial viewing falls. This is due to a positive marginal impact on advertising prices as commercial impacts fall. In a given period, relatively fixed advertising media plans mean that price of advertising rises as impacts fall. As such, if there is moderate short-term decline in linear viewing, this may not create a significant concern for commercially-funded free-to-air broadcasters – the price of advertising is likely to increase to compensate for the decline.

Looking to the future, TV advertising is well placed to play a role in the future and complement this growth in digital advertising. As shown below, the general outlook for television advertising is positive. Expectations are that TV will continue to grow at a nominal rate of c.2.5% per annum up until 2019. Whilst mobile advertising is expected to grow most significantly (a share of which Channel 4 receives through VOD consumption on mobile devices), this does not appear to be at the expense of TV advertising.

Figure 32: UK total display advertising (2012 – 2019, £bn)



Source: EY Analysis, Magna Global

Overall, therefore, we consider that TV advertising revenues are likely to remain robust as a source of funding for content investment.

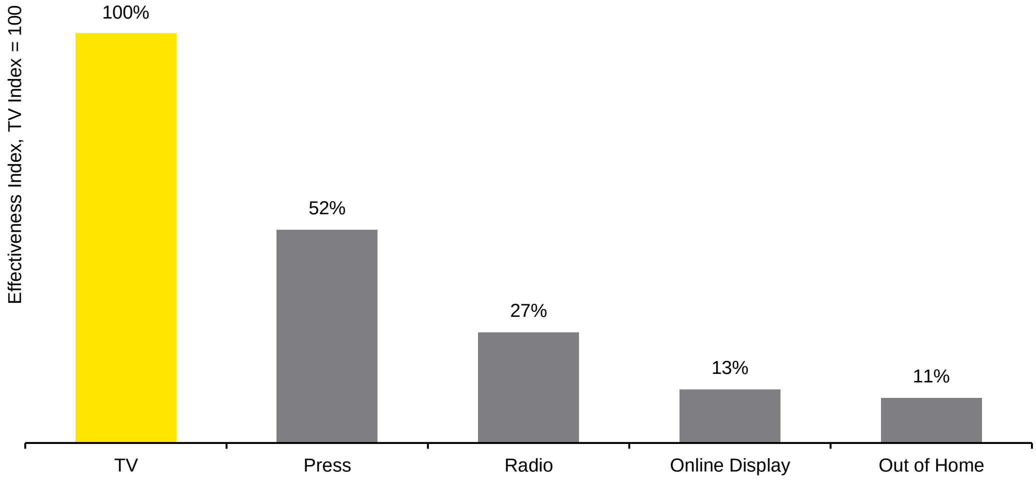
TV substitution potential

With the onset of more widely-available and faster broadband, there has been discussion around the relative merits of different advertising platforms. However, the evidence suggests that TV still remains an effective and reliable channel for advertisers. An econometric study commissioned by Ebiquity and Thinkbox[61] – of over 4,500 ad campaigns across 10

[59] One 'Commercial Impact' is defined as one viewer watching one 30-second television commercial.
[60] Enders Analysis – Channel 4 sustainability and privatisation 2015
[61] Thinkbox (2014), https://www.thinkbox.tv/Research/Thinkbox-research/Payback-4-pathways-to-profit

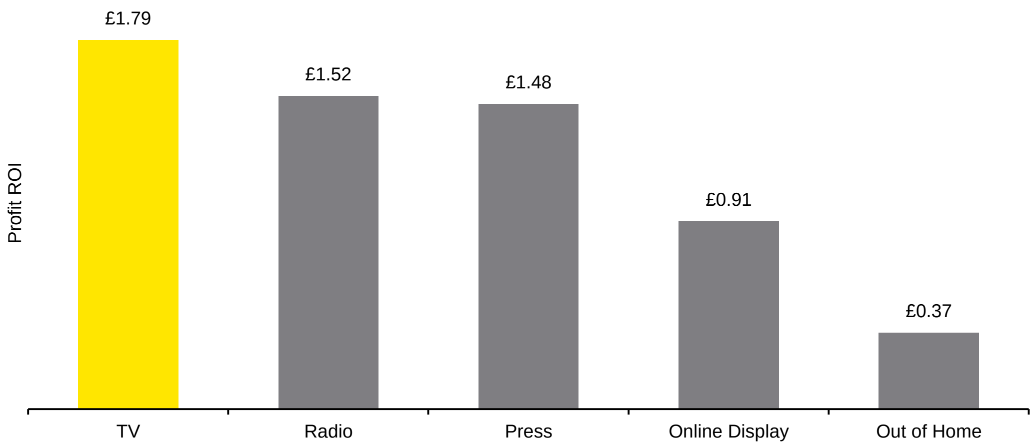
advertising sectors spanning 2007-2014 – found that television advertising still outperforms most digital and offline channels in effectiveness[62] and profit return-on-investment.

Figure 33: Advertising effectiveness of different media channels



Source: Playback 4, 2008-2011 & 2011-2014, Ebiquity

Figure 34: Profit return on investment (£)



Source: Playback 4, 2008-2011 & 2011-2014, Ebiquity

Programmatic buying

Advertising markets have also evolved as a result of a number of new technologies that are aimed at targeting consumers using analytics of recorded data, thereby creating new advertising opportunities. These targeted mechanisms have become more sophisticated over time and, as such, it is useful to consider how these opportunities might be exploited by Channel 4.

"Programmatic" is the umbrella term for automated transactional mechanisms that use data and software to buy advertising spots – in effect automated advertising sales[63]. The speed of

[62] i.e., if one exposure on TV delivers 100 product sales, then an equivalent exposure on press would deliver 52 product sales.
[63] To simplify, the process involves publishers providing information to an ad server with details that would be appropriate for a particular campaign. This information is relayed to a number of potential buyers who bid for the

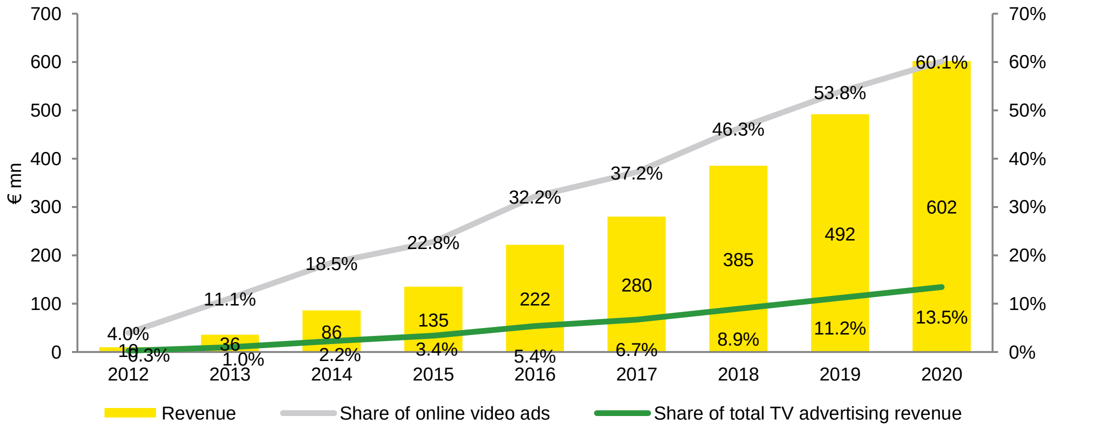
this automated process means that adverts can be loaded in real time, based on current events and information. This increases the potential for new forms of advertising which can be adjusted for live events, e.g., outcomes of live sports events. Other advantages of programmatic buying include operational efficiency; reduced wastage; improved ad effectiveness and more precise targeting.

Channel 4 launched its programmatic VOD advertisement option for the All4 online TV platform in 2015, the first UK broadcaster to do so. The platform has proved highly successful, with c.15% of Digital Advertising Revenue (DAR) currently generated through programmatic means. Subsequently, Channel 4 has created its own advertisement exchange – Premium Video Ad Xchange – which enables advertisers not only to buy audiences on digital platforms but also at a household level (for viewers of All4 on shared devices such as Samsung Smart TVs, Xbox consoles and YouView).

Advertisers are increasingly looking to extend their video advertising reach beyond traditional screens, in line with changes to consumer behaviour. However, according to eMarketer, audience identification, targeting and measurement still need further development in order to allow for such possibilities[64]. Channel 4, however, being an early broadcast adopter of such a service, forecasts that programmatic revenues will double to represent 30% of DAR by the end of 2016[65].

Due to the increasing popularity of programmatic advertising, Channel 4 is well positioned to continue growing its online advertising revenues. As demonstrated below, the programmatic video advertisement market has grown significantly, and is forecast to continue to grow both in terms of volume and share of overall advertising revenues. This is therefore an area of continued potential growth for broadcasters and VOD players, including Channel 4.

Figure 35: Forecast UK video programmatic market size & share of video advertising revenue (2012 – 2020, € mn)



Source: IHS, EY analysis, Enders, Magna Global, Ofcom

Analytics of viewer data and increased targeting

A further trend in the advertising industry is the use of analytics to ensure that only relevant viewers are targeted, through a digital pop-up advertisement online or through a video stream. As on-demand usage becomes more widespread, broadcasters should have access

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space based on how attractive the space is to their target audience. The winning bidder receives a notification and can proceed with the advert. This process occurs in around 0.2 seconds.

[64] Despite Obstacles, Programmatic Video Advertising Maturation Advances. eMarketer, 2015. Available at: http://www.emarketer.com/Article/Despite-Obstacles-Programmatic-Video-Advertising-Maturation-Advances/1013096#sthash.md7t2K2z.dpuf

[65] Channel 4 launch Premium Video Xchange at Upfronts 2016. Channel 4, 2015. Available at: http://www.channel4.com/info/press/news/channel-4-launch-premium-video-xchange-at-upfronts-2016

to more information about viewers, which could enable the opportunity to create a premium when selling commercial space due to the level of sophistication and subsequent benefit to the advertiser.

PSBs have a particular position in the market that makes them potentially attractive to ad buyers, in that they have established viewer bases that are broad and easy to access quickly, for mass commercial gain.

SVOD players possess large amount of data – including online viewing and search habits, past consumption and expenditure, and demographic/geographic information. However, Netflix and Amazon Prime have not commercialised their consumer data in VOD advertising (and we are not aware of any immediate plans by these players to carry advertising-funded content). Instead, such players use data to enhance their subscription models, with Netflix focusing on elaborating its viewer data insight to make smarter investments in making the next show.

Channel 4, on the other hand, has recognised the benefits of collecting consumer data for VOD advertising, having introduced registration on the 4oD platform several years ago. By analysing and segmenting viewer behaviour data, Channel 4 is able to support personalisation for viewers and therefore seek to secure commercial value by providing innovative commercial products to offer its advertisers.

Dynamic Ad Insertion

Whilst linear television has an established history of engaging customers, we saw in Section 4 that some challenges have been created by the use of DVRs. In the context of fragmenting forms of viewership, advertisers favour VOD as compared to DVR due to viewers' inability to skip an advertisement. This creates potential benefits for advertising-funded broadcasters – as VOD viewing is monetised (through advertising), and there is the potential to generate increasingly valuable advertising sales using the combination of viewer data analytics and Dynamic Ad Insertion (DAI).

Dynamic Ad Insertion – enabling targeted advertising – has been embraced by some VOD service providers over the last couple of years, with Canoe Ventures (who service major broadcasters and cable networks) reporting a 215% increase in viewed ad impressions from Q1 to Q4 in 2014. The key benefit of DAI is the flexibility for advertisers to swap adverts in and out of VOD content and ensuring adverts are non-skippable by the viewer. DAI should continue to grow and assist both VOD service providers and advertisers in reaching consumers effectively.

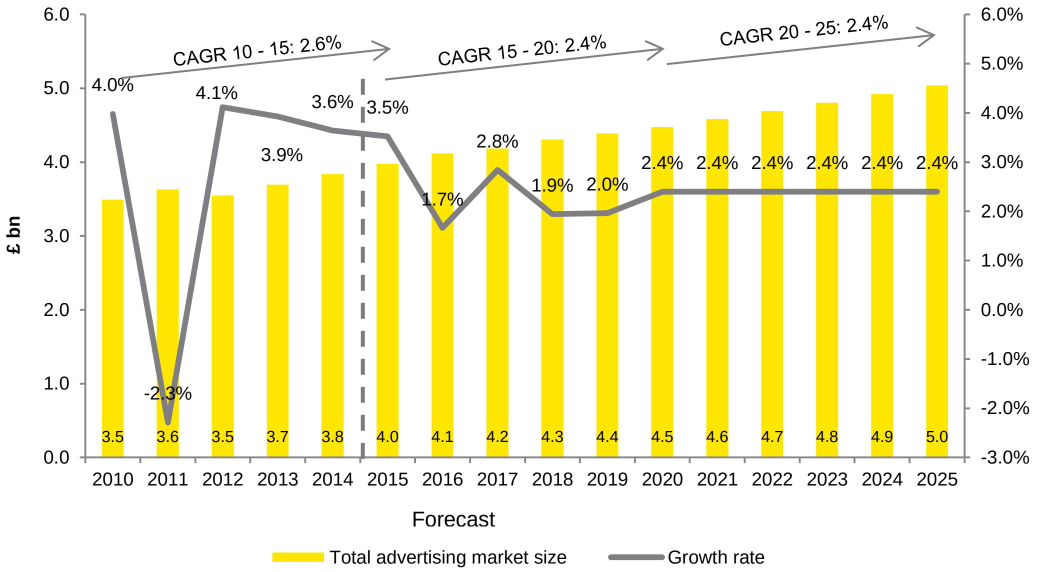
Channel 4 has implemented targeted advertising in VOD, launching its advertisement personalisation services (Ad4U) in October 2015. This allows brands to target viewers sequentially and in real-time. The combination of data analytics and DAI is attractive to advertisers, and enables Channel 4 to achieve a premium on advertising prices for targeted, data-enriched views.

Similar technologies could be implemented into linear television – e.g., implementing targeted advertising in broadband-connected set top boxes, and amending functionality in DVRs to ensure that time-shifting does not enable viewers to skip adverts. Sky has already developed Sky AdSmart, which provides targeted advertising in linear television based on age, location, income and other attributes, with variations potentially under development on other platforms too. If this technology were to develop on free-to-air platforms, and/or if Channel 4 were to secure appropriate commercial arrangements with pay-TV platform operators, targeting in linear TV could create further opportunities for Channel 4.

Implications for Channel 4: Future evolution of advertising markets

Figure 36 displays a forecast of TV advertising, setting out our view that overall revenues are likely to continue to grow at a steady rate to 2025. Based on 2014 actual TV advertising revenue, we believe that total TV advertising will reach just under £5.0bn by 2025[66].

Figure 36: Indicative TV advertising forecast to 2025



Source: EY Analysis, EY Item Club, Oxford Economics, Enders, Magna Global, Ofcom; numbers in nominal terms

Therefore, whilst the rise of digital television and broadband-delivered content have created challenges for TV advertising, we consider that TV advertising will continue to grow and remain robust as a source of funding for television programming.

More broadly, we believe that the future TV environment will be characterised by a range of both opportunities and threats to advertising revenues:

- ► Opportunities will arise for Channel 4 and other broadcasters through the monetisation of on-demand viewing, harnessing data on online viewers' behaviour in order to better target advertising messages, and developing targeted advertising in linear television (a technology available on Sky's satellite platform, and potentially under development on other platforms). Channel 4 has been active in the on-demand field, monetising on-demand viewing and delivering commercial value from the exploitation of audience data.
- ► There may be declines in scale premiums for advertising if linear viewing falls. However, as we have seen, moderate declines in viewing can be associated with offsetting increases in the price of advertising – therefore defending revenues.
- ► There are also opportunities for Channel 4 and other broadcasters both to continue to secure TV advertising revenues, and also to capture a material share of online video advertising – given that the UK free-to-air broadcasters are also the providers of the most popular on-demand services.

[66]Revenue from linear TV advertising only. Recent reports suggesting TV advertising revenue in 2015 reached £5.27bn include linear, VOD and product placement revenues.

- ► From an advertising sales house perspective, there are both opportunities and risks for Channel 4 – both the Channel 4-UKTV contract (as discussed in section 4.1) and Sky's contract to sell Channel 5's commercial advertising space expire in 2020. Therefore, whilst market change should continue to create opportunities for Channel 4 to pursue deals for third party advertising sales representation, there is also the potential for a decrease in Channel 4's sales house market share.

On this basis, our overall view is that TV and non-TV advertising will continue to be complementary sources of funding for Channel 4. TV advertising will continue to be an important source of revenue for C4, and its engagement with non-linear and younger audiences should enable it to secure ongoing value.

That said, this overall view does not anticipate shocks to the advertising system – akin to the recession of 2009. As noted earlier, advertising revenues are likely to continue to be cyclical and volatile, as a result of which we cannot discount the possibility of shocks similar to those encountered in the TV advertising recession of 2009. It is therefore useful to consider what steps are available to Channel 4 in the event that there are advertising shocks, or if trends in viewing and/or content costs are more adverse than our analysis suggests.

Potential scope for Channel 4 to reduce costs if necessary

We saw in Section 4 that Channel 4 has previously adopted a number of steps when it has had to react to market change – such as seeking to diversify its revenue base, cutting non-core costs, and as a last resort reducing programme spend. Whilst there may be questions as to the extent to which it will retain the same degree of flexibility in future – for instance if it has already removed all non-core businesses and optimised overheads – we expect Channel 4 to have the potential to adapt its business to market change (e.g., by further monetising its on-demand viewing or strengthening its advertising sales house position), and examine its cost base if necessary.

If required, Channel 4 has scope to flex content spend in response to market change. Channel 4 operates on a not-for-profit basis, with its core mission to deliver its remit and maximise public value through investment in high quality original programmes, whilst supporting a wide range of independent production companies. As such, Channel 4 deliberately does not commission content on a profit-maximising basis. Therefore, whilst it does not exercise this option, Channel 4 could – within the boundaries of its remit – reduce its commissioning cost base by streamlining its supplier relationships, and/or by reducing its content spend (either by commissioning cheaper programming or by bearing a lower proportion of production costs).

It is important to be clear that this is not a course of action we necessarily recommend – for instance, we have not assessed what impact such a cost reduction would have on content quality, and therefore what the knock-on adverse impact might be on advertising revenues. But this suggests that, if shocks emerge in the future, Channel 4 has the flexibility to adjust its cost base to enable it to survive and remain sustainable.

Further, we note that Channel 4 has sought to prepare for potential shocks – it maintains significant cash reserves, including a dedicated content reserve earmarked to protect investment in downturns. Moreover, it is important to be clear that, if content spend is reduced in response to short-term advertising market shocks, the ability to increase investment would return as the market recovers (as took place, for instance, after the last advertising recession).

5.5 Conclusions

Based on our assessment of potential future market trends, our overall view is that:

- ► Linear TV, still the main source of viewing for Channel 4, will continue to be of central importance to UK viewers. We do expect the use of "non-linear" (services other than broadcast television, e.g., VOD) content services to grow and become increasingly prominent as sources of video consumption over the coming years, aided by increasing broadband speeds and coverage. These developments are likely to reduce the share of overall viewing (across both TV and other devices) accounted for by linear broadcast television. But we expect broadcast television to continue to be a significant force in the marketplace.

- Within linear TV, the Channel 4 core channel's share is stabilising, with its share of viewing increasing in 2015 for the first time in a decade. On a portfolio level, Channel 4 has successfully maintained its viewing share through the process of digital switchover.

- TV advertising revenues will remain robust as a source of funding for Channel 4's content investment and will continue to grow. This should continue to create opportunities for Channel 4 to pursue deals for third party advertising sales representation. Further, we note that Channel 4's revenue performance has remained robust – with overall revenues increasing by £30m to £938m in 2014. Whilst financial results for 2015 are not yet available, we noted above that Channel 4's viewing share – a major driver of its advertising revenue performance – increased in 2015.

- Outside of linear TV, Channel 4 has displayed innovation in launching and continuing to develop its on-demand proposition, and investing significantly in its data strategy. This has enabled it to monetise the growing amount of on-demand viewing, and to reach younger audiences through a growing number of screens via All4. This should leave Channel 4 well-placed to leverage its brand across platforms, and benefit from continued growth in non-linear viewing and associated digital / mobile advertising spend.

- Whilst new search and discovery methods will continue to evolve, the thrust of policy in the UK is to seek to aid navigation to public service content on-demand. Consumption trends also suggest a continued propensity for UK viewers to be attracted to locally-produced UK content (e.g., *Poldark*, *Downton Abbey*, *Humans*) – with SVOD services continuing to grow in importance, but serving consumer needs in a complementary manner to linear TV and not competing directly with broadcasters for advertising revenue.

However – and set against the above – we have identified three risks which could create challenges for Channel 4 in the future:

- **Younger audiences may continue to shift away from linear television more rapidly than other audiences, creating a structural decline in TV viewing over time**. A key question concerns the future behaviour of younger audiences, with recent research providing mixed evidence on whether today's young audiences will increase their live viewing over time, or whether they will carry forward their current behaviours as they get older. There is inherent uncertainty in this area, and we cannot discount the possibility that today's young audiences will continue to shift away from broadcast television, with adverse consequences for free-to-air broadcasters. Further, today's youth may be replaced by new younger audiences, with equally (if not more) significant shifts away from linear TV and long-form content in general. The future viewing of younger audiences does therefore pose a potential long-term structural risk to free-to-air broadcasters, including Channel 4.

  However we do observe that Channel 4 is already investing in evolving the All4 proposition and is successfully monetising non-linear viewing. It is also worth noting that, based on our assessment of market trends, our overall view is that linear television broadcasting will remain robust into the long term.

  Additionally, responding to this risk requires broadcasters to meet the changing needs of younger audiences, and it is not clear that either public or private ownership makes any difference to a broadcaster's ability to meet this need.

- **Increased competition from new entrants and overseas players could adversely affect the future of free-to-air content investment**. There is a potential risk that increased future content expenditure by overseas players in the UK broadcast market (including Channel 5's owners Viacom) could take commissions and viewing share away from the other PSBs and other UK broadcasters. Further, on the supply side, there has been significant growth and consolidation in the external production sector. However, despite these market dynamics, we do not see evidence that UK broadcasters are failing to secure the content they need, and nor are content commissioning prices increasing.

In parallel, the future funding of the BBC is still under consideration in the context of BBC Charter Review. However, in the event that funding pressures lead to reduced content investment by the BBC (as witnessed, for instance, by the decision to move BBC Three to an online only service), this could serve to ease the competitive environment for content investment decisions by commercial broadcasters including Channel 4.

- **The cyclical and volatile nature of advertising revenues could continue to create shocks to commercial PSB funding, akin to that experienced in 2009.** It is useful to note in this regard that – as set out in Section 4 above – Channel 4 responded to previous challenges by adapting its business model, cutting non-core costs, and ultimately implementing reductions in programme spend when this proved necessary. Whilst there may be questions as to the extent to which it will retain the same degree of flexibility in future – for instance if it has already removed all non-core businesses and optimised overheads – we note that Channel 4 maintains significant cash reserves, including funds ear-marked for content investment.

  The risk of advertising volatility has always been faced by commercial broadcasters. As such, Channel 4 and other commercial broadcasters should be able to adapt their business to market change, and examine their cost base if necessary. This includes the potential for adjusting content spend in response to short-term advertising market developments. Whilst reductions in programme spend might have adverse implications for content quality and therefore public value, it is likely to be an option available to Channel 4 if the circumstances require it. Further, history also suggests that if content spend is reduced in response to short term advertising market shocks, the ability to increase investment would return as the market recovers.

  Additionally, changes in advertising dynamics create opportunities for broadcasters in the fast-growing digital and mobile advertising markets, through the monetisation of on-demand viewing, harnessing data on online viewers' behaviour in order to better target advertising messages, and developing targeted advertising in linear television (a technology available on Sky's satellite platform, and potentially under development on other platforms).

As a result, on balance we consider Channel 4's future to be sustainable, provided it retains the commercial and regulatory flexibility to respond to market developments and short-term change in the manner in which it has done so in the recent past. We note that Channel 4 has demonstrated a track record of successfully adapting to significant industry change, and Channel 4 – as well as other broadcasters – will need to continually adapt to mitigate industry risks.

6. Conclusions and policy considerations

This final section summarises our overall conclusions and the implications of our analysis for policy-makers.

6.1 Overall conclusions

In summary, this report has found that:

- Over the past ten years, the commercial and economic environments in which Channel 4 operates have been subject to significant change – with changes in the TV revenue mix, the completion of the digital television switchover, volatility in advertising markets and the emergence of faster and more widely-available broadband. In the face of that change, broadcasters have adapted and evolved their businesses – with Channel 4 successfully broadening out its range of services across TV and non-TV platforms, developing new consumer propositions to reflect changing viewing behaviour, and diversifying its revenue base.

- Looking to the future, there is no doubt that market change will continue to have a significant influence on Channel 4's business, as it will on all free-to-air broadcasters. There will continue to be challenges to Channel 4's financial and remit performance. In particular, it is impossible to discount the possibility that the behaviour of younger viewers could lead to a structural decline in levels of TV viewing; global content players may significantly increase their original content investments in the UK market; and TV advertising revenues – still core to Channel 4's revenue base – will continue to be volatile. That said, we note that Channel 4 has demonstrated a track record of successfully innovating and adapting to significant industry change.

- On balance, we therefore consider Channel 4's future to be sustainable – provided it retains the commercial and regulatory flexibility to respond to market developments and short-term change in the manner in which it has done so in the past. But risks will remain, and Channel 4 – as well as other broadcasters – will need to continually adapt.

6.2 Policy considerations

These conclusions raise a number of key considerations that we recommend to policy-makers when reviewing the future of Channel 4 and its delivery of PSB:

1. **Within the existing regulatory regime, Channel 4 has a degree of discretion as to how it fulfils its regulatory obligations – it is important to maintain this discretion**. Whilst the channel has a series of specific and quantitative licence obligations, its overarching remit is largely qualitative in nature. This grants Channel 4 the flexibility to take steps to adapt its business model in the face of both short term and longer term change, without a prior need for regulatory approval. Retaining this flexibility is therefore likely to be useful in responding to future market change.

2. **That said, the regulatory environment may need to evolve over the longer term – but this should not require a wholesale shift away from the core Channel 4 remit**. Ofcom has already noted the potential for changes to Channel 4's PSB delivery in future, in order to reduce the costs and/or increase the benefits of PSB status for Channel 4. For instance, Ofcom has posited the potential for EPG prominence to be applied to the entirely of the Channel 4 portfolio (rather than just the main channel), and for the licence obligations to be met by the Channel 4 Television Corporation as a whole (again, rather than just by the main channel). More broadly, Ofcom has also noted the potential for broader regulatory change in the PSB regime, such as reform of the rules around platform access and prominence, and reviewing the relationship between PSBs and independent producers. Such flexibility can be delivered within Channel 4's existing ownership and regulatory structure, and as such we consider that the sustainability of Channel 4's remit and obligation delivery should be regularly monitored by Ofcom.

3. **It is important to remember that Channel 4 is one part of a wider sector undergoing change, with that sector subject to interlocking shifts in the regulatory and policy regime**. It is therefore important not to take decisions about the future of Channel 4 in isolation. For instance, if Channel 4 is to be adversely affected by market change, then it useful to consider whether it is more or less affected than other broadcasters – put another way, might its relative position (and, therefore, its share of – say – television advertising revenues) remain broadly unchanged? Further, any decisions about the future of Channel 4 should take proper account of the range of moving parts in the wider policy environment, in both the UK and Europe.

4. **If Government is considering privatisation of Channel 4, considerable thought should be given to the implications for remit delivery and the potential for organisational uncertainty**. Given Government's commitment to continued PSB status for Channel 4, any consideration of privatisation options needs to be accompanied by a clear statement of the problems that Government is trying to address, and the outcomes that Government is seeking to achieve. In particular, there is a need to balance the potential (but inherently uncertain) benefits that privatisation may bring; against the potential risks to remit delivery if Channel 4 moves from a not-for-profit to profit-maximising status. Any privatisation process is also likely to be a complex one, and that complexity could create uncertainty within the current Channel 4 organisation. It is important to minimise this uncertainty, in order to avoid risks to the public value generated by Channel 4's PSB remit and original content investment.

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