



BBC | Trust

BBC response to Ofcom's Second Public Service Broadcasting Review, Phase 1

Summary of market modelling

Modelling the UK TV sector 2008 – 2016

The BBC has used market modelling work developed by the media practice at Capgemini to answer some key questions over the time period of Ofcom's Review. This annex to the BBC's submission sets out a summary of the findings of this work.

The key questions covered by the model are as follows:

- What might be the key changes in platform penetration?
- What shifts in viewing behaviour might this trigger among key demographics?
- What might happen to the traditional market dynamics of public service broadcasting (PSB)?
- What is the consequent impact on commercial PSBs?
- What might be the implications for PSB output in particular genres?

Approach to the analysis

The model consists of a series of discrete modules covering different aspects of the television and new media markets. Key modules are as follows:

- **Platform penetration:** this forecasts the proportion of homes taking up particular video-based technologies, including the various digital television platforms, personal video recorders (PVRs), broadband, video-on-demand (VOD) services and mobile television services
- **Viewing behaviour:** this models the number of viewing minutes per day across four age groups (5-15 year-olds, 16-34s, 35-54s and over 55 year-olds) and across a wide variety of platforms, factoring in varying levels of substitutional viewing, advertising skipping in PVR and VOD households and direct pay VOD
- **Content spend:** this estimates programme spend and genre mix for each terrestrial channel, allowing different choices to be made about relative levels of PSB spend
- **Share / spend:** this forecasts channel shares for each of the main terrestrial channels and spin-offs using a combination of programme spend and individual channel share / spend ratios
- **Advertising module:** this combines the channel share forecasts with an overall view of the television advertising market to produce a net advertising revenue (NAR) forecast for channels, using individual channel premiums and discounts, and a targeted advertising revenue forecast for non-linear viewing.
- **Profit / loss module:** this combines revenues from a number of sources (linear and targeted advertising revenues, ancillary revenues and paid content revenues) to produce overall channel and group revenues based on a future view of monetisation models in the industry. It also models costs, including content, marketing and transmission costs.

Key areas of uncertainty

Any forecasting of the television and video market over the next decade is fraught with uncertainty. Many of the technologies that could revolutionise television viewing are currently at a very early stage. Technology itself is moving forward at an ever-increasing rate with significant effects on audience behaviour and market dynamics. This is also a world of greater complexity, with a proliferation of platforms and increasing fragmentation of viewer behaviour.

To address these uncertainties and their implications, we have created a set of four scenarios that explore different sets of assumptions around these uncertainties into the future. These scenarios allow us to look at different ways the broadcasting market might evolve over the next decade and highlight some key areas where policy-making may make a real impact.

There are a relatively small number of uncertainties that have a major impact on the outcomes for the PSBs, and it is on these that the modelling and scenario planning has been concentrated. They are:

- Penetration of new TV platforms and time-shifting technologies: how quickly will new television technologies penetrate a substantial number of television homes? How many households will be able to access video-on-demand services?
- Diffusion of new viewing behaviours: will the traditional linear viewing experience still remain the dominant televisual experience? Will the changing behaviour of younger audiences spread throughout the population, or will there remain a significant digital divide?
- VOD viewing share: will the current PSBs be successful in the on-demand world? There will be significant new revenue streams in the digital world, and it is unclear how much of that revenue the traditional commercial broadcasters will be able to capture.
- Business models of broadcasters: how will the television advertising market evolve over the next decade? Will new revenue streams, such as direct payment for content or targeted advertising, be enough to compensate for any continued decline in linear advertising?
- Broadcasters' costs: the cost of content has a direct impact on commercial broadcasters' bottom line. Will costs continue to rise at historic levels with greater competition for rights and content in a vibrant competitive market or will increasing fragmentation and financial pressure force prices down?

The key assumptions underpinning all of the scenarios have been cross-checked and reconciled with a number of other public projections and forecasts, including broker and City analysis, Ofcom's own modelling for the PSB Review and various models produced for previous reviews (e.g. LEK and O&O for the Channel 4 Review). Overall, in comparison with the BBC model, Ofcom's has lower downside forecasts for total TV net advertising revenue to 2016 but the upper estimate is similar; PSB NAR upper estimates are similar but again Ofcom's lower estimate is below that of the BBC.

Indicative scenarios

The four scenarios have been constructed according to some important principles:

- They flex the areas with the most impact and the most uncertainty, allowing us to visualise different and plausible outcomes
- They take a consistent view of the future across the key levers, for instance by matching viewing patterns with advertising revenue
- The scenarios have been constructed with consistent inputs and are potential depictions of the future – none are right or wrong
- Scenario formulation and analysis is an ongoing process. As more data has emerged, including Ofcom's own view of the future, we have evolved and reshaped our scenarios.

In brief, the four scenarios can be summarised as follows:

In the **Evolution Scenario**, new television platforms continue to develop at their current pace. Daily hours of linear TV viewing per user out-weigh non-linear consumption by a large margin. However, non-linear services on TV gain mass market reach as consumers across age groups adapt to such offerings and services which permit viewers to watch TV on their PC also grow in popularity. Public service broadcaster audience share continues to drift downwards until digital switch-over and stabilises thereafter. Public service broadcasters use their content assets skilfully to maintain a powerful position in the UK broadcasting ecology while the advertising market continues to stagnate.

In the **Fragmentation Scenario**, the increasing take-up of new non-linear services on TV makes them a mass-market phenomenon across age-groups. Media consumption habits observed among young audiences spread into middle-age groups though older audiences remain in the traditional linear world. Players from outside the traditional TV value chain increasingly offer web TV content and, as TV walled gardens fall, public service broadcasters will increasingly compete with these non-traditional players to retain audience share. There are adverse impacts on all business models as funding fragments: PSBs struggle to maintain their relative success into the on-demand world and linear television advertising declines.

We also constructed two slightly different **Revolution Scenarios**. In both, on-demand and time-shifted penetration reaches a tipping point. Rapid penetration of broadband access and increased consumer demand for interactive content makes non-linear services the offering of choice across all age groups. Viewers have the option to access TV content from both traditional and non-traditional players through user-friendly services and interfaces. New gatekeepers emerge as the TV walled gardens lose appeal and viewers use search engines to locate content rather than the traditional EPG. The market matures to support a wide range of business models; from ad-supported ones to pay as you go payment models, though linear advertising declines sharply. In **Revolution A**, the PSBs make a successful transition into the fully digital world with audiences retaining a preference for UK content. In **Revolution B**, PSBs struggle to make an impact and an increasing share of viewing on new platforms is taken by new, often global, entrants.

The following table shows in more detail how the four scenarios illustrate different possible outcomes for each of the key areas of uncertainty:

	Evolution Scenario	Fragmentation Scenario	Revolution Scenario A	Revolution Scenario B
Penetration of new TV platforms and time-shifting technologies	<ul style="list-style-type: none"> Time shifting technology adoption and reach of new TV platforms progress at a constant pace VOD take up beyond Cable and IPTV homes is slow 	<ul style="list-style-type: none"> Adoption of time shifting technologies and reach of new TV platforms increase faster than the current trend 	<ul style="list-style-type: none"> Step change toward an even faster adoption of time shifting technologies and reach of new TV platforms 	<ul style="list-style-type: none"> Step change toward an even faster adoption of time shifting technologies and reach of new TV platforms
Diffusion of new viewing behaviours	<ul style="list-style-type: none"> Most people still prefer linear viewing on the TV set 	<ul style="list-style-type: none"> Fragmentation as the youth wants to watch non linear TV / on new platforms, while older age groups stick to traditional viewing patterns 	<ul style="list-style-type: none"> Most age groups migrate their viewing to new platforms and non linear 	<ul style="list-style-type: none"> Content owners go direct, reducing PSBs and Sky share of viewing
Share of VOD Viewing	<ul style="list-style-type: none"> PSBs and Sky control much on demand viewing 	<ul style="list-style-type: none"> New Players (i.e web aggregators) and content owners (i.e sport rights holders, studios, indies, etc.) bypass broadcasters, reducing PSBs and Sky share of on-demand viewing 	<ul style="list-style-type: none"> PSBs and Sky control much on demand viewing 	<ul style="list-style-type: none"> Content owners go direct, reducing PSBs and Sky share of viewing
Business Models of Broadcasters	<ul style="list-style-type: none"> Linear TV advertising stagnates in real terms and remains the main revenue stream of most broadcasters 	<ul style="list-style-type: none"> Linear TV advertising decreases in real terms but remains broadcasters' main revenue source Broadcasters are increasingly able to tap targeted advertising revenues 	<ul style="list-style-type: none"> Sharp real terms decrease in Linear TV advertising. Targeted advertising and consumer payments are important revenue streams Consumers reduce their spending on Pay TV as they access premium content directly 	<ul style="list-style-type: none"> Programme costs grow in line with inflation as new entrants bid for on-demand rights
Changes to Broadcasters' Programme Costs	<ul style="list-style-type: none"> Mild reduction in programme cost as broadcasters will see their ad revenue decline 	<ul style="list-style-type: none"> Sharp reduction in programme cost as the market fragments and broadcasters lose audience share and revenue 	<ul style="list-style-type: none"> Mild reduction in programme costs as rising demand for on-demand rights offset declining demand for linear rights 	<ul style="list-style-type: none"> Programme costs grow in line with inflation as new entrants bid for on-demand rights

In response to Ofcom's modelling, we have been exploring a fifth scenario characterised by a rapid decline in TV net advertising revenue and a fall in the network advertising premium to understand its impact on public service broadcasting. The rationale for the new scenario is to understand the impact on public service broadcasting of a large-scale withdrawal of advertising money from TV and a collapse in advertising premiums. The scenario is based on the revolution B scenario, in which there is a rapid adoption of time shifted viewing across all age groups and broadcasters suffer from an increase in competition for programme rights and a loss of audience share to new on demand players. This scenario appears to be a less plausible outcome than the ones outlined above, though we are continuing to explore its implications for PSB provision.

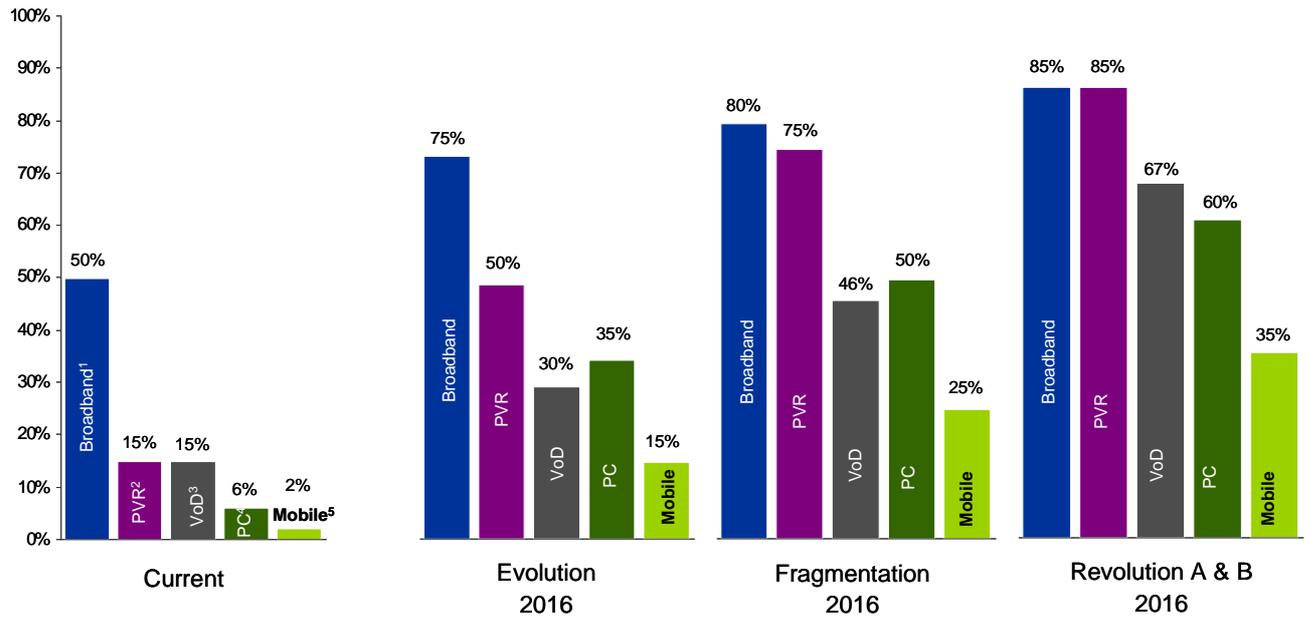
Scenario outputs

The four main scenarios produce very different pictures of the digital television world in 2016 and deliver insights into various plausible possibilities around audience behaviour, the economics of commercial broadcasters and the opportunities of the digital world. This section highlights some of the key findings from the model under the different scenarios.

Platform penetration

Under the four scenarios, all technologies achieve significantly higher penetration than today. However, there are real variations in the level of video-on-demand and mobile video take-up. In the Evolution scenario, only around 30% of households have access to VoD, whereas this rises to around 70% in the Revolution scenarios where take-up and usage has reached a tipping point.

Adoption of TV technologies by 2016 (% penetration / reach)



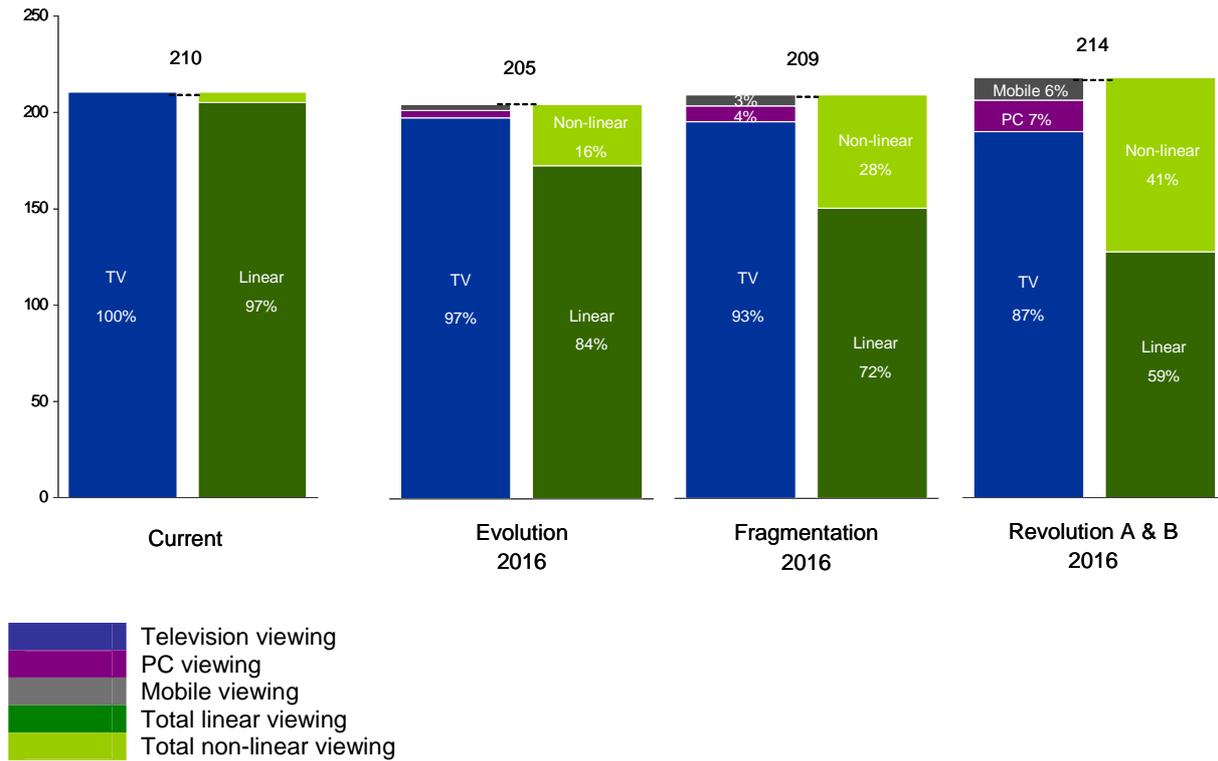
- Broadband penetration - % of all homes
- PVR penetration - % of all homes
- VoD reach (via IP STB or IP enabled TV set) - % of all homes
- PC reach - % of homes using the services
- Mobile reach - % of individuals using the service

Patterns of viewing

These shifts in platform penetration drive significant changes in audience behaviour. The modelling underpinning this has been split by age-group so that different demographic groups can be modelled independently and a more sophisticated analysis undertaken of platform usage.

This leads to major differences between the scenarios. By 2016, in the Evolution scenario 84% of viewing is still linear and the vast majority of this takes place on the television screen. By contrast, in the Revolution scenarios, by 2016 only 59% of viewing remains a linear experience and platforms such as PC and mobile take a low but increasing share (note that, in the BBC model, PVR viewing is included under non-linear viewing, though modelled independently):

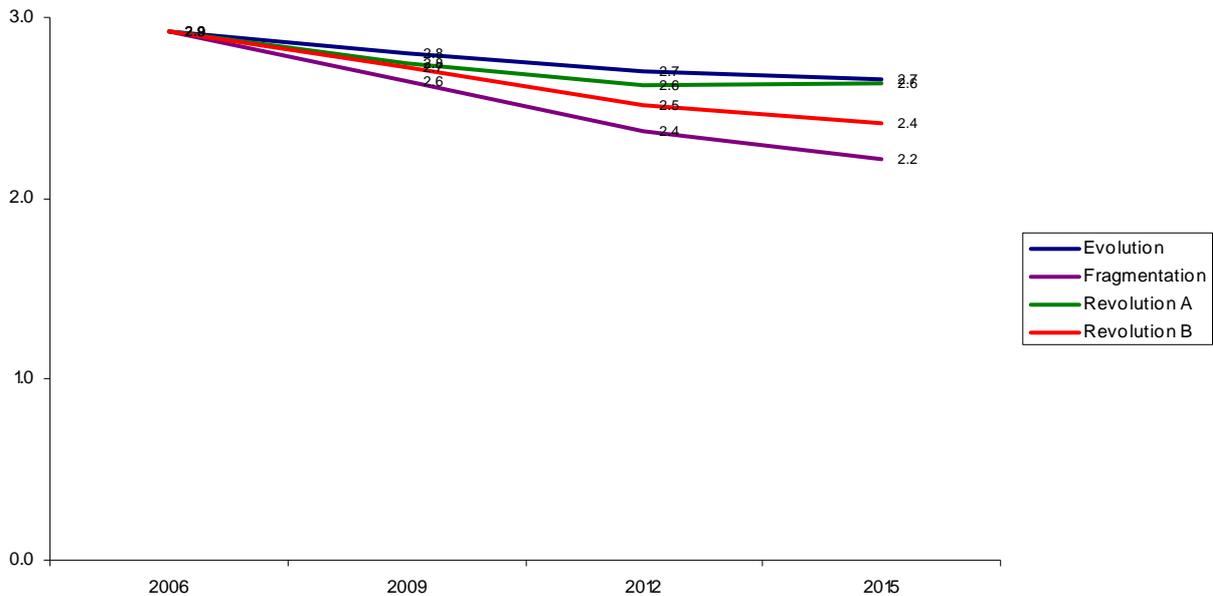
Total daily viewing hours (millions of hours)



PSB Revenues

Our modelling suggests that even in the most benign conditions – the ‘Evolution’ scenario – revenues for the commercial public service broadcasters will fall in real terms between 2006 and 2015 from £2.8bn to £2.7bn. Under less benign scenarios, commercial PSB revenues may decline more steeply:

Commercial PSB revenues by scenario (£bn, real terms, revenue from linear advertising, targeted advertising, sponsorship and paid content for the commercial PSBs and their spin-off channels)



In the Fragmentation and Revolution B scenarios, by the end of the modelling period commercial public service broadcasting would be unprofitable unless the commercial PSBs address their cost base and/or change their programming strategies. One means of maintaining profitability for the PSBs will be to reduce programme costs – by reducing cost inflation, by reducing the amount of commissioned material, by shifting out of low profitability genres or by increasing acquisitions/repeat rates.

Our modelling suggests that, under the Fragmentation and Revolution B scenarios, the need to make significant adjustments to content spend and genre mix will occur as soon as 2010. The likely strategy will be to shift out of those public service genres that are unprofitable and into cheaper content with broader appeal.

Conclusions

There are a number of conclusions that can be drawn from the model and this headline analysis to help understand the challenges and opportunities ahead for PSBs:

- There is considerable uncertainty over how the broadcasting market may evolve over the next decade. Plausible changes in a few key assumptions (e.g. advertising premiums or cost inflation) can have a large impact (>£50m) on the apparent viability of traditional PSB provision on commercial broadcasters. There is, therefore, significant risk in attempting to formulate policy solutions too quickly or too radically. Regulation will need to avoid complicating the regulatory framework in which commercial players operate
- Even in the evolution scenario, new media takes an increasing share of audience attention – underlining the importance of widening PSB definitions to include new media distribution and content.
- Commercial PSBs such as ITV and Five are likely to remain profitable in most scenarios if they make adjustments to programme strategies as suggested above and would continue to be able to make PSB output across a range of genres. The PSBs should enjoy considerable success from their spin-off channels which in virtually all scenarios contribute significantly to the overall profitability of the broadcasting groups
- However, it is possible that PSBs will in general find that increased commercial pressures will not be offset by new revenue opportunities and Channel 4 will face more significant pressures than ITV or Five. Through a process of experimentation with different patterns of content provision, the BBC model shows that PSBs are likely to need to shift their pattern of output from genres with high opportunity costs towards those which attract higher viewing and advertising premiums
- For all PSBs and for the BBC and Channel 4 in particular, cost-efficiency will be a critical success factor. In a market where linear television advertising will remain under pressure, it will be vital for all broadcasters to keep tight control over programming and other costs
- Scope for developing new media initiatives will also be important. If existing PSBs can successfully diversify, they will help secure future revenue flows – for instance, web and mobile content revenues for the commercial PSBs together could reach £0.5bn by 2016 in the Revolution A scenario where we envisage the commercial PSBs succeeding in the on-demand future. In future, their new media activities may be able to make an important PSB contribution alongside their conventional channels
- The role played by the BBC will have a critical impact on the rest of the market. If the BBC continues to invest in high production value UK content, this will provide an incentive in most scenarios for commercial broadcasters to do the same, to retain audiences and revenues
- There remains a key risk – more significant than in the past – from the increasing globalisation of the media sector. In both Ofcom's and the BBC's most extreme scenarios, this could undermine the commercial viability of PSB as a whole and the whole sector would not be susceptible to marginal public support. Under these scenarios, a strong BBC would be the only way of guaranteeing the impact and effectiveness of UK public service broadcasting in the face of the challenges from global brands and technological revolution.