BBC Scotland Competition Assessment

Final Determination Annex 2: Channel Take-up and Substitution

STATEMENT ANNEX

Publication Date: 26 June 2018

A2. Channel Take-up and Substitution

Introduction

A2.1 In order to review the public value and assess the potential impact on fair and effective competition of the BBC's proposal, we must first consider the audience that the new BBC Scotland channel is likely to attract. This Annex provides our assessment of the likely 'take-up' of the BBC Scotland channel, i.e. the viewing hours the new channel is likely to attract in Scotland and the viewing share and audience reach it is likely to achieve.[1]

A2.2 The BBC's proposal involves associated changes to existing BBC services, in particular BBC Two, BBC Four and CBBC HD in Scotland. We therefore also assess the effect on the viewing of BBC Two, BBC Four and CBBC in Scotland resulting from the BBC's proposal.

A2.3 We then identify the services most likely to be affected by the proposed new channel and the associated changes. We assess the potential audience substitution, including from existing BBC services and commercial services.

A2.4 This Annex broadly reflects the assessment of take-up and substitution set out in our Consultation. Where relevant, we have set out the stakeholder views we received in response to our Consultation and how these, along with any further analysis, have influenced our assessment of take-up and substitution. In particular, we set out and respond to stakeholders' views on: our take-up estimates for the new channel (paragraphs A2.104 to A2.135); and substitution from existing TV channels as a result of the BBC proposal (paragraphs A2.162 to A2.171).

Our overall approach

A2.5 As part of its PIT, the BBC commissioned Frontier Economics and Communications Chambers ("Frontier CC") to assess the impact of the proposed new BBC Scotland channel.[2] We have used Frontier CC's modelling approach as a starting point for our own assessment of the likely take-up of BBC Scotland and the viewing impact on free-to-air ("FTA") channels.[3] We summarise below our overall approach, before discussing more detailed modelling issues and assumptions (including where we differ from Frontier CC).

[1] In this Annex, references to audience take-up, viewing hours, viewing shares and substitution relate to viewing in Scotland rather than across the UK, unless otherwise specified. References to viewing share or changes in viewing are based on total viewing hours in Scotland (again unless specified otherwise).

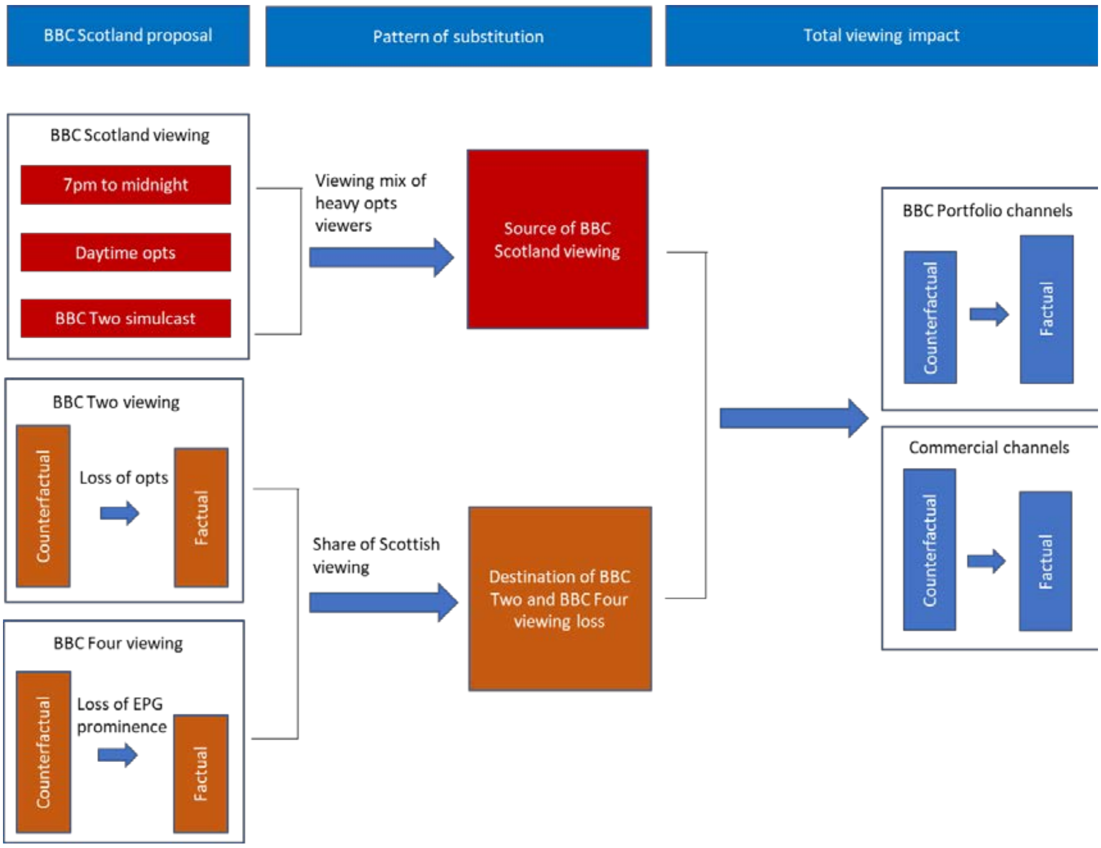
[2] Frontier Economics, The Impact of the Proposed BBC Scotland Channel, An assessment of the impact on fair and effective competition, 23 November 2017 ("Frontier CC report"). This report was submitted to Ofcom on a confidential and not for publication basis. Some references to information in this report have been redacted.

[3] Frontier CC's approach builds on the approach Ofcom took in previous market impact assessments of proposed changes to BBC TV services (e.g. Ofcom's BBC Three Market Impact Assessment). See Ofcom, Proposed changes to BBC Three, BBC iPlayer, BBC One and CBBC, Market Impact Assessment, 30 June 2015, https://www.ofcom.org.uk/__data/assets/pdf_file/0016/68110/market_impact_assessment_report.pdf.

A2.6 We have forecast two scenarios: a "factual" scenario assuming BBC Scotland is launched and a "counterfactual" scenario absent the launch of BBC Scotland. The difference in viewing between these two scenarios represents the viewing impact of BBC Scotland.

A2.7 We present the structure of our model in Figure A2 1 below, which is based on three main elements and focuses on viewing impacts on TV channels (in particular FTA channels). First, we consider likely changes in viewing resulting from the BBC Scotland proposal, including viewing of the new channel and associated changes to BBC Two and BBC Four. Second, we assess likely patterns of substitution. This includes sources of viewing of BBC Scotland (i.e. which TV channels or services viewers of the new channel will come from); and viewing losses away from BBC Two and BBC Four.[4] Finally, we consider the net impact of these changes on viewing of the BBC portfolio of channels (i.e. viewing across all of the BBC's channels) and viewing of commercial channels relative to the counterfactual without the BBC Scotland proposal.

Figure A2 1: Our model structure



Source: Ofcom

[4] Changes to CBBC HD on the Freeview platform (as discussed in paragraph A2.10 below) are *de minimis*, so we did not include them in our model.

Assessment of BBC Scotland take-up and BBC Two, BBC Four and CBBC changes

A2.8 We have assessed the likely take-up of the new BBC Scotland channel based on content shown on the BBC Scotland channel at different times of day: the channel's main broadcast hours (7pm-midnight); additional daytime coverage of up to 150 hours per year (noon-7pm); and BBC Two simulcast shown in the remaining daytime hours. In estimating the likely take-up of BBC Scotland, we have considered a range of evidence. We have undertaken modelling based on 2017 BARB viewing data[5] on the actual viewing behaviour of Scottish audiences. We have also considered evidence on take-up of BBC Scotland from the consumer survey we commissioned for this BCA[6], as well as consumer surveys commissioned by the BBC[7] and STV Group[8]. For reasons we discuss in paragraph A2.74, we have tended to place more weight on actual viewing data rather than consumer survey results.

A2.9 To reflect the BBC's proposal for separate BBC Scotland HD and SD channels, our modelling of take-up relates to total viewing across the SD and HD variants. Similarly, any references we make to particular channels (e.g. STV) include the impact across both the SD and, if applicable, the HD variant of that channel (i.e. STV SD and STV HD).[9]

A2.10 The BBC's proposal will also have a direct impact on the viewing of existing BBC services. In particular, it will entail changes to BBC Two, BBC Four and CBBC HD in Scotland:

- *Scottish opt-outs[10] (or "opts") will cease to be shown on BBC Two:* Once the new channel launches, BBC Two will no longer broadcast Scottish opts and instead its Scottish viewers will see the same content as the rest of the UK. The budget for BBC Two opts programming (£12.7m) will be allocated to BBC Scotland, with some of the programmes currently shown in opts slots now shown on BBC Scotland.

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[5] BARB all Scotland viewing based on individuals aged 4+ using the BBC Scotland region.

[6] We commissioned Critical Research to conduct a face-to-face survey of 1,111 adults aged 16+ in Scotland. The research was designed to understand the potential impact of the proposed new BBC Scotland channel on consumption of other services providing Scottish content across TV, newspapers and online. Fieldwork conducted from 4 December 2017 to 31 January 2018. See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.

[7] The BBC commissioned Kantar TNS to conduct a face-to-face survey of 1,038 adults aged 16+. Fieldwork conducted between 14 June and 8 July 2017. Respondents were asked, amongst other things, how likely they would be to watch the new channel regularly and whether they would watch some specific services less if the new channel were launched. See: Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017; and Data Tabulations, 28 November 2017.

[8] [✂]

[9] Where appropriate, we have made adjustments to data to ensure it captures the total impacts across SD and HD channels. We have also taken into account in our modelling that the BBC Scotland SD and HD channels will occupy different EPG positions on different platforms.

[10] Most of the time viewers in Scotland watch the same BBC network programming on BBC One and BBC Two as viewers in the rest of the UK. However, at certain times, the BBC broadcasts opt-outs from the main schedule on BBC One and BBC Two in Scotland to show programmes aimed at Scottish viewers (BBC One Scotland and BBC Two Scotland). Budget figures taken from BBC PIT, paragraph 52.

- *BBC Four will move to a lower position in the EPG:* The new channel will also take over BBC Four's current position on the electronic programme guides ("EPGs") on [✂] in Scotland and so BBC Four will have to move to a lower EPG position [✂].
- *CBBC HD will no longer broadcast from 7pm to 9pm on the Freeview/Youview platforms:* To enable the launch of BBC Scotland in HD on Freeview, the BBC will no longer broadcast CBBC HD between 7pm and 9pm on Freeview.[11]

A2.11 As our assessment is forward-looking, we have made projections of likely viewing in the future. For simplicity, we continue to present take-up and substitution results as annual changes in viewing share relative to the counterfactual in 2019, on the assumption that the new channel achieves a stable viewing share relatively quickly (as we did in our Consultation). Particularly as the BBC Scotland channel is now due to launch in early 2019 (rather than the initially planned launch date of Autumn 2018), we recognise that BBC Scotland may take longer to reach a 'steady state' (i.e. where it has largely exhausted its scope for further growth). But if the steady state we project BBC Scotland to achieve in 2019 actually took longer to reach, we would expect it to do so within a three-year period.[12] Our model results for take-up and substitution for later years would be very similar.[13]

Assessment of pattern of substitution

A2.12 We then assess the likely sources of viewing for the new BBC Scotland channel and the likely destinations of viewing moving away from BBC Two and BBC Four. We do this by first identifying the most likely substitutes for these channels. Then we assess the potential audience substitution to/from these affected services. We have estimated this by undertaking modelling based on 2017 BARB viewing data. We consider that the new channel will attract viewing from existing BBC and commercial channels. Likewise, we consider that BBC Two and BBC Four will lose viewing both to other BBC and commercial channels.

Total viewing impacts

A2.13 Overall, we assess the net change in BBC viewing. BBC Scotland is expected to attract viewers, and BBC Two and BBC Four may lose viewers due to the BBC's proposed changes

[11] Scottish viewers will still be able to watch CBBC content in HD via the iPlayer or CBBC SD (which is located in a very close EPG slot on Freeview).

[12] We considered the launch of other portfolio channels, which typically achieved a 'steady state' share within a three-year period.

[13] Our modelling makes projections about viewing in the future, but in the counterfactual we assume that each channel's viewing share is based on its share in 2017 (based on BARB data). Furthermore, our estimates for the factual take-up and substitution scenarios rely on the viewing habits of heavy viewers of Scottish content on BBC Two in 2017. Therefore, if steady state were achieved in a later year, the overall service share projections would not differ. If steady state were achieved later than 2019, the main difference to our modelling results is in terms of the absolute volume of TV viewing hours (due to the overall decline in TV viewing that we predict) and some of the assumptions around the mix of linear and catch-up viewing for different channels. However, our modelling suggested that there are not significant differences in the take-up and substitution results if BBC Scotland achieved a steady state share in 2020 or 2021 instead of 2019.

to these channels. Furthermore, some of the viewers that BBC Scotland will attract will come from existing BBC services. We therefore assess the net change in viewing across the BBC's portfolio of channels. We also assess the changes in viewing of other commercial channels.

A2.14 We recognise that there are number of points where alternative modelling assumptions could have been made. However, our objective is to ensure that the broad magnitude of our estimates is credible. Given the significant uncertainties, we do not consider that it is possible to estimate take-up and substitution precisely.

A2.15 We have not explicitly modelled the potential viewing impacts on more distant TV competitors such as pay TV and subscription video-on-demand ("SVoD") providers. Instead we have qualitatively assessed the scale and likelihood of such viewing impacts using the results of the BBC's quantitative research and our consumer survey.

A2.16 Similarly, we have not sought to explicitly model the potential substitution to the BBC Scotland channel from other media (e.g. print, online, radio). Instead, we have qualitatively assessed the potential impact of the 9pm weekday news programme on news consumption from commercial news providers. As our assessment of the impacts on other media does not rely on explicit quantitative modelling, we have discussed these in our market impact assessment in Annex 3.[14]

Impact of STV2 closure on our take-up modelling

A2.17 Since publication of our Consultation, STV Group announced its decision to close the STV2 channel at the end of June 2018.[15] The closure of STV2 could, in principle, potentially affect our modelling of: (i) other channels' viewing shares in the counterfactual; (ii) our view on take-up of the new BBC Scotland channel in the factual; and (iii) how audiences substitute from existing TV channels to the new channel in the factual.

A2.18 However, we have chosen not to update our take-up analysis in light of the closure of STV2 for the following reasons: (a) STV2's viewing share in Scotland is very small (0.21% in 2017)[16]; (b) STV2's share of viewing of heavy BBC Two opts viewers (defined as the top-third of BBC Two opts viewers, ranked by their opts viewing) is very small (0.38% in 2017) (see paragraphs A2.138 and A2.141 below); and (c) STV2's small viewing share would be redistributed across a number of channels thereby spreading the impact.

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[14] Ofcom, BBC Scotland Competition Assessment, Final Determination Annex 3, paragraphs A3.76-A3.98.
[15] STV Group plc, STV sets out strategy for creative and digital growth, 16 May 2018.
[16] When we report viewing data and shares for STV2 in 2017, we include BARB viewing data for both the City TV predecessor local TV services in Scotland from 1 January to 23 April 2017 and STV2 from 24 April 2017 (when it launched) to 31 December 2017 (these are named STV City in BARB data). STV City comprised STV Glasgow and Edinburgh. These were combined under the re-branded channel, STV2, along with new services covering Aberdeen, Dundee and Ayr.

A2.19 Furthermore, STV Group announced it had agreed commercial terms to sell its local TV assets (including STV2's licences) to That's Media, which may create alternative local TV services in Scotland.[17] However, there is some uncertainty about the precise nature and timing of the launch of any new local TV services in Scotland. If one or more local TV services were to launch under the counterfactual, at least based on the performance of other local TV services across the UK, it is unlikely that these would perform as well as STV2, which itself already had a low share of viewing.[18]

A2.20 Under the factual, any new local TV service(s) would face increased competition from BBC Scotland. However, given that we estimated BBC Scotland would only have reduced STV2's viewing hours by between 2.8% and 6.5% (our base case was 3.7%) in our Consultation, this suggests the loss of viewing to any new local TV service(s) caused by BBC Scotland is unlikely to be very significant.[19]

Adjustments to our model

A2.21 As noted in paragraphs A2.28 and A2.51 below, we updated the Frontier CC modelling to include BARB viewing data for 2017. Having reviewed our modelling approach, we found that in the Consultation some inputs that we relied upon used Frontier CC inputs that were based on 2016 BARB viewing data. We have therefore made some changes to our model to better reflect 2017 BARB data (see paragraphs A2.61 and A2.86 below). These changes have the effect of increasing our take-up estimates for BBC Scotland (see paragraphs A2.92 and A2.93 below).

Forecast of TV viewing absent the BBC's proposal

A2.22 First, we need to set a baseline (counterfactual), against which we can assess the impact of the BBC's proposal. In this case, the counterfactual represents how viewing of TV channels may change over time if the BBC's proposal does not go ahead.

A2.23 We have used Frontier CC's approach as a starting point to forecast our counterfactual over the period 2018 to 2023. Below, we discuss where we have made adjustments to this approach.

[17] STV Group plc, STV sets out strategy for creative and digital growth, 16 May 2018.

[18] BARB does not report individual local TV services, such as That's TV channels. However, it did previously report the 'Local TV Macro Network' and, based on viewing from their local transmission area, BARB data suggests that the Local TV Macro Network achieved a viewing share of 0.008% (expressed as a share of total UK-wide viewing) in H1 2017 (BARB ceased reporting these services thereafter). This compares to STV2/STV City's share of viewing of 0.015% (i.e. as a % of total UK-wide viewing over the same period).

[19] Under our revised base case, we forecast BBC Scotland would have reduced STV2's viewing hours by 4.2%. We consider this loss of viewing would still be unlikely to be very significant.

Summary of the approach in the BBC's PIT

A2.24 Frontier CC projected viewing hours in both Scotland and the UK for the following channels: BBC One, BBC Two, BBC Four, other BBC channels combined, ITV (which broadcasts some Scottish content in its Border region),[20] STV, STV2 (and its predecessor City TV) and all "other" channels combined from 2017 to 2023.[21] Its projections capture total linear TV viewing (i.e. live viewing and seven-day recorded and catch-up viewing on TV).[22]

A2.25 In line with the trend decline in linear TV viewing hours, Frontier CC assumed total TV viewing hours would fall at 1.0% per year in Scotland (slightly slower than its forecast of a 2% fall per year for the rest of the UK ("rUK")).[23] It assumed each channel's share of total viewing would remain constant at 2016 levels (e.g. the BBC's total share of viewing would remain constant at 32.2%).[24] As BARB data is not available for the Gaelic-language channel BBC Alba, Frontier CC did not include this channel in its main model.

A2.26 Frontier CC then applied uplift percentages to linear TV viewing hours to estimate catch-up viewing hours on non-TV devices (i.e. viewers watching catch-up player services, such as iPlayer, on a laptop, tablet or smartphone).[25]

A2.27 Frontier CC did not explicitly forecast the viewing shares of the individual channels of pay TV providers or viewing of services such as Netflix. However, it did forecast the aggregate viewing of all "other" channels, which includes pay TV channels (e.g. Sky Sports channels).

Ofcom's approach

A2.28 We have used Frontier CC's approach as a starting point to forecast our counterfactual but have updated the analysis to include BARB viewing data for the year 2017.[26] We consider it appropriate to use the most up to date data, particularly as STV's local TV network service only relaunched as STV2 in April 2017. Moreover, viewing in 2016 is likely to have reflected major sporting events such as the Summer Olympic Games and the UEFA European Championship. It is possible, therefore, that viewing hours and viewing shares

[20] In this Annex, references to "ITV Border" relate to ITV Border (Scotland), which is the Scottish sub-region of the ITV Border region.
[21] Frontier CC report, page 30.
[22] This includes live broadcast viewing on TV, as well as viewing on TV up to seven days after broadcast via recording devices such as personal video recorders (PVR) and catch-up player services (e.g. BBC iPlayer, STV Player).
[23] Frontier CC report, page 32.
[24] Frontier CC report, page 31.
[25] These uplifts are derived for ITV and "other" channels based on viewing estimates of the BBC (i.e. viewing of the iPlayer relative to viewing of linear TV programmes). For 2019, Frontier CC applied a higher uplift for the BBC (2.32%) compared to ITV (1.74%) and "other" channels (1.67%). Frontier CC assumed that these uplifts will increase over time with ITV and "other" channels' uplifts almost catching up with those of the BBC by 2023. See: Frontier CC report, page 33; and Frontier model.
[26] Data includes both viewing for the SD and HD variant of channels where available.

for the BBC and other channels showing coverage of these sports events may have been relatively higher in this year when compared to a more typical year.

A2.29 Similar to Frontier CC, we have forecast total linear viewing hours to fall at 1% per year in Scotland in line with recent trends but assume that each channel's share of TV viewing will remain fixed at 2017 levels.

A2.30 As mentioned above, Frontier CC uplifted the forecasts for total linear viewing to capture viewing from non-TV devices. We consider these uplift assumptions to be reasonable and have applied the same uplift percentages to forecast the overall viewing shares of channels.[27]

A2.31 Based on the above assumptions and projections, we present in Table A2 1 below the viewing shares assumed in Frontier CC's model and updated for 2017 BARB data.

Table A2 1: Projected viewing shares in 2019 under the counterfactual scenario[28,29]

	Frontier's approach (fixed at 2016 levels)	Our approach (fixed at 2017 levels)
BBC One	22.79%	22.46%
BBC Two	5.95%	5.85%
BBC Four	0.94%	0.95%
Other BBC	2.61%	1.68%
STV / ITV Border	15.28%	15.09%
City TV / STV2	0.10%	0.21%
Other	52.34%	53.76%

Source: Frontier CC analysis of BARB data (first column); our projections based on BARB 2017 data (second column).

[27] Overall, weekly online viewing (live streaming and on-demand) for the BBC iPlayer and ITV Hub have fluctuated quite significantly over time. However, as at 16 April 2018, BARB data suggests that since the start of 2018, total viewing (weekly online viewing minutes) for the BBC iPlayer ranged from 550m to 700m compared to 100m to 200m for ITV Hub. See chart: http://www.barb.co.uk/project-dovetail/viewing-levels-over-time-by-tv-player-trend-chart/. These data remain indicative, as BARB suggests on its website that these data remain in 'beta' format.

[28] Viewing shares include both linear TV set viewing (live and non-live viewing via PVR and catch-up services) and online viewing on non-TV devices (via catch-up services). Due to rounding, figures may not add up to 100% exactly.

[29] In our Consultation, we also included another counterfactual scenario in our model to adjust for how STV2 might have grown over time. Given the exit of STV2, we no longer include this scenario.

Take-up of BBC Scotland

A2.32 As explained above, the counterfactual represents our baseline for how we expect the affected TV services to perform if the BBC's proposal did not go ahead. The first step in assessing the BBC's proposal is to estimate the likely take-up of the new BBC Scotland channel.

Summary of the approach in the BBC's PIT

A2.33 Frontier CC estimated likely take-up of BBC Scotland starting with the viewing of BBC Two across its SD and HD channels and then made various adjustments.[30] In particular, Frontier CC assumed that the new channel would perform as well as the opts currently shown to Scottish viewers on BBC Two. It also adjusted for a number of other factors to take into account the lower prominence and positioning of the new channel, the budget available, and likely performance over the 7pm-midnight schedule. These adjustments essentially reduce the predicted viewing of BBC Scotland relative to BBC Two Scotland.

A2.34 Frontier CC used viewing hours (7pm-midnight) for BBC Two Scotland in the factual (i.e. absent the opts programming) as its starting point to estimate the likely take-up of BBC Scotland. The forecast of viewing of BBC Two in the factual is 6.52% of viewing hours, but this is used as a baseline from which Frontier CC applied five separate adjustments based on a comparison of the characteristics of BBC Two Scotland and the proposed new channel.

Adjustment 1: Outperformance of opts on BBC Two (7pm – midnight)

A2.35 The first adjustment Frontier CC applied is intended to reflect the fact that all of the content on BBC Scotland will be aimed at Scottish audiences.[31] It estimated this adjustment factor based on how opts currently shown perform on BBC Two in Scotland.

A2.36 In particular, Frontier CC examined the following data for 2016/17:

i) the average performance of opts programming on BBC Two Scotland, relative to network programming (non-opts) shown in the same slots on BBC Two in the rUK; and

ii) the average performance of network programming on BBC Two Scotland, relative to network programming in the same slot on BBC Two in the rUK.

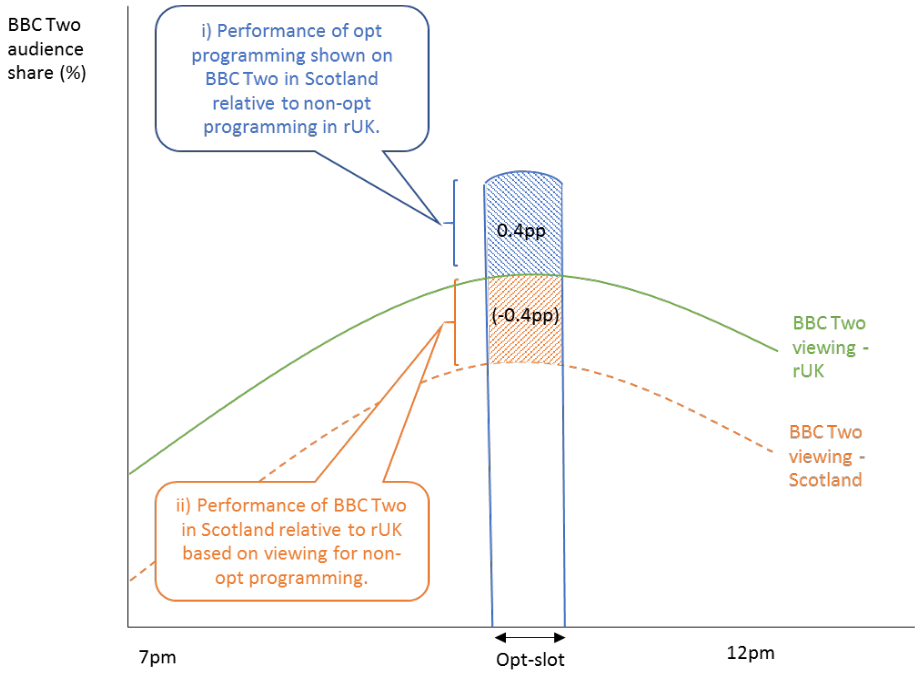
A2.37 By calculating the difference between i) and ii), Frontier CC derived an estimate for the extent to which opts programming on BBC Two Scotland outperforms network programming. The reason for using both i) and ii) is to estimate how well Scottish opts performed relative to what viewing might have been had Scottish viewers watched

[30] Frontier CC report, sections 5.2 and 5.3.

[31] Frontier CC report, section 5.3.1.

network programming instead. Taking i) and ii) into account, Frontier CC estimated Scottish opts on BBC Two outperformance was 0.8 percentage points (in terms of the difference in the share of viewing hours relative to BBC Two network programmes shown in Scotland).[32] This percentage point difference in proportionate terms is equivalent to a 13.7% difference.[33] Figure A2 2 below presents a stylised representation of Frontier CC's approach to estimating the outperformance of BBC Two Scotland opts programming relative to network programming.

Figure A2 2: Relative performance of opts and non-opts programming on BBC Two in Scotland vs. rUK



Source: Ofcom, based on Frontier CC analysis

A2.38 Frontier CC uplifted the viewing for BBC Two Scotland in the factual (i.e. excluding opts programming) by 13.7% to reflect the opt-like content of BBC Scotland.

[32] In terms of i), Frontier CC estimated a 0.4 percentage point difference in the share of viewing of Scottish opts on BBC Two relative to BBC Two's share of viewing in the rUK in the same slots. In terms of ii), network programming shown to Scottish viewers on BBC Two underperformed on average with a -0.4 percentage point difference in the share of viewing of BBC Two in Scotland in non-opts slots compared to BBC Two's share of viewing in the rUK in the same slots. The overall difference between these two values is 0.8 percentage points.

[33] These values were converted to a 13.7% adjustment factor based on the following steps: Frontier CC first calculated the proportionate difference in BBC Two's share in non-opts slots in Scotland and rUK (-6.22%) to downlift BBC Two's share in opts slots in the rUK (5.49%): [(1 - 6.22%) * 5.49% = 0.052]. It then took BBC Two's share in Scotland for opts slots (5.86%), divided by 0.0515 and then subtracted 1: [(5.856% / 0.0515) - 1 = 13.7%].

Adjustment 2: More competitive environment in peak times

A2.39 Frontier CC explained that the new channel will show this opts-like content from 7pm-midnight, which includes more competitive peak viewing hours (7pm-10.30pm) when rival channels tend to show their highest quality content.[34] Frontier CC argued, therefore, that it is necessary to adjust opts outperformance to account for this, as a higher proportion of the opts shown on BBC Two Scotland are outside of peak hours than would be the case for the new channel.

A2.40 In order to derive an adjustment factor, Frontier CC compared the amounts spent on BBC Two in competitive peak evening hours with the amount spent on BBC Two in off-peak evening hours. The reason for looking at the difference in spend is that it approximates to how much more BBC Two has to spend in peak hours to achieve the viewing share it did. Frontier CC therefore used these spend figures as a proxy for the degree of competition for viewers in peak and off-peak periods.[35] Frontier CC combined BBC Two's spend figures in evening peak and off-peak with the proposed peak and off-peak split of hours on BBC Two and BBC Scotland to calculate a weighted average spend per hour of [✂] for BBC Scotland, and [✂] for BBC Two Scotland. It used the percentage difference between these two values to derive an adjustment factor of minus 14.5% for the fact that 'opts-like' material shown on BBC Scotland will include a greater proportion shown in more competitive time slots.

Adjustment 3: EPG prominence

A2.41 Frontier CC applied a downlift to account for the lower EPG position of BBC Scotland relative to BBC Two Scotland.[36] Compared to BBC Two, the new channel is expected to be moderately further down the EPG on all platforms: at the bottom of the first page on Virgin and probably a page or two below BBC Two on other platforms (Sky, Freeview and Freesat). Frontier CC derived the downlift based on a paper prepared for Ofcom by FEH Media Insight in 2013 on the viewing impact of EPG prominence.[37] Based on this paper, Frontier CC estimated a 15% reduction in viewing for the proposed new channel. These comparisons were originally made for BBC Two Scotland SD relative to the expected EPG position of BBC Scotland SD. The BBC did not make any changes to this particular adjustment to account for the launch of BBC Scotland HD.

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[34] Frontier CC report, section 5.3.2.
[35] This is based on the view that channels are more likely to broadcast their high budget programming during peak times, where competition for viewers is higher, rather than post-peak times.
[36] Frontier CC report, section 5.3.3.
[37] FEH Media Insight, An Analysis of the Audience Impact of Page One EPG Prominence, 29 March 2013, https://www.ofcom.org.uk/__data/assets/pdf_file/0015/57201/impact_of_epg_prominence.pdf.

Adjustment 4: Budget per hour

A2.42 Frontier CC estimated a budget per hour of [✂] for BBC Two Scotland and £17,300 for the proposed new channel, a difference of minus [✂].[38] Frontier CC assumed the difference in the budget per hour of BBC Scotland relative to BBC Two Scotland has a one-to-one effect on viewing. Therefore, Frontier CC took into account BBC Scotland's lower budget per hour by applying a [✂] reduction in viewing for the new channel.

Adjustment 5: Boost to opts viewing from their position on BBC Two

A2.43 Frontier CC made a further adjustment to account for the benefits opts enjoy from being part of BBC Two Scotland, namely BBC Two's brand relationship, promotion within BBC Two (e.g. continuity announcements), the "hammocking" effect of popular BBC Two programming and lead-in for programming at 7pm.[39] Frontier CC assumed what it refers to as an "entirely subjective" 25% reduction in viewing for the new channel to account for the potential loss of all these benefits.

Overall adjustment

A2.44 Frontier CC took the combination of the above adjustments to estimate an overall adjustment of minus [✂].[40] It then applied this downward adjustment to the viewing hours of BBC Two Scotland in the factual (i.e. absent the opts programming) to derive an estimate for the likely viewing hours of BBC Scotland (see Figure A2 3 below).[41]

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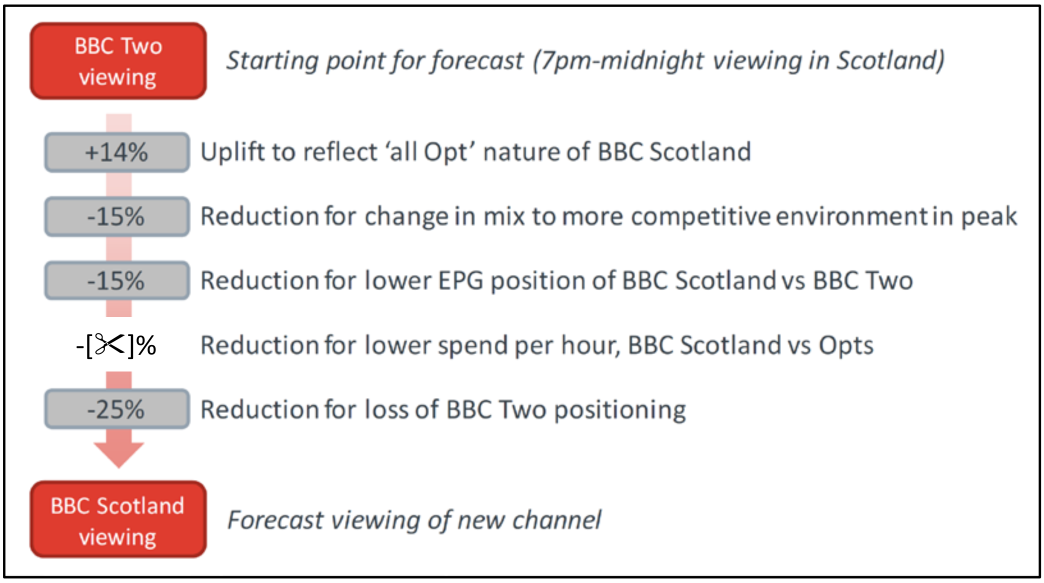
[38] Frontier CC report, section 5.3.4.
[39] Frontier CC report, section 5.3.5.
[40] Frontier CC report, section 5.3.6 and Frontier model.
[41] In 2019, the combined effect of these adjustments is a reduction from 2.55% (BBC Two's viewing share absent the opts) to 0.92% (BBC Scotland's predicted viewing share).

Figure A2 3: BBC Scotland viewing forecasts from BBC Two viewing (7pm – midnight)



Source: Frontier Economics report, page 53, Figure 24.

Daytime schedule

A2.45 As explained above, Frontier CC used viewing hours (7pm-midnight) for BBC Two Scotland in the factual to construct its base case. It assumed here that BBC Scotland is not on air before 7pm and that any opts programming on BBC Two Scotland during the daytime disappears.

A2.46 However, as described in the BBC's PIT, under the final BBC proposal the new channel would also broadcast content between 12 noon and 7pm.[42]

A2.47 Frontier CC modelled the inclusion of daytime schedules on BBC Scotland.[43] It assumed an additional 140 hours of daytime opts programming on BBC Scotland and considered scenarios for what may fill the schedule gaps (e.g. "barker" material or a BBC Two simulcast).

A2.48 Frontier CC noted that if BBC Scotland aired from 12 noon to 7pm, showing a mixture of live opts programming and a BBC Two simulcast, the BBC's total viewing share (across its channel portfolio) could gain 0.59pp compared to 0.48pp under Frontier CC's base case

[42] BBC PIT, Box 4.
[43] Frontier CC report, section 5.4.3.

(i.e. BBC Scotland on air only from 7pm to midnight), which amounts to a total increase of 0.11pp.[44]

Sensitivity analyses

A2.49 Frontier CC also estimated the impact of the new BBC Scotland channel on the BBC's overall share of viewing (across its portfolio of channels) when varying particular input assumptions individually to create a high and low case for each assumption (see Figure A2 4 below).[45] For each model assumption listed, the red and blue bars show how much higher or lower the BBC's predicted viewing share could be relative to Frontier CC's base case. For example, Frontier CC's base case assumes a BBC Scotland budget of £31.6m and a BBC viewing share impact of 0.48%. The impact of applying a lower (higher) budget assumption of £25m (£35m) would be a 0.13pp loss (0.06pp gain) in the BBC's viewing share relative to the base case.

Figure A2 4: Frontier CC sensitivity analysis of BBC share of viewing in Scotland (2019)

Assumption	Base	Low	Viewing share impact (base: 0.48%) – Low	Viewing share impact (base: 0.48%) – High	High
BBC Scotland budget	31.6	25.0	-0.13%	0.06%	35.0
Impact of signif loss of prominence on Sky, Virgin	-30%	-40%	-0.03%	0.03%	-20%
Impact of loss of BBC Two positioning	-25%	-60%	-0.28%	0.12%	-10%
Spend-to-viewing scaling factor	100%	120%	-0.09%	0.09%	80%
BBC Scotland DTT EPG prominence loss	Moderate	Significant	-0.02%	#N/A	No
Months to full share	0	24	-0.28%	0.00%	0
Opt benefit scaling	100%	50%	-0.02%	0.04%	200%

Source: Frontier Economics, page 59, Figure 29: Sensitivity analysis, BBC share of viewing in Scotland, 2019 (updated for version based on revised EPG slot assumptions for BBC Four).

Our approach

A2.50 We have considered our approach to estimating the likely take-up of BBC Scotland and the factual scenario in light of Frontier CC's approach. We consider that the outperformance of BBC Two's current opts programming is a good proxy for the potential viewing that the new channel may capture, and we have therefore used Frontier CC's approach as a starting point. However, we have modified Frontier CC's approach by excluding and varying some

[44] When considering the option of a mixture of live opts programming and barker material, Frontier CC noted that the BBC's total viewing share would increase by only 0.02pp relative to its base case. These figures are based on Frontier CC's updated analysis to reflect differences in viewing shares due to revised EPG slots for BBC Four.
[45] Frontier CC report, section 5.4.4.

of the adjustments it then goes on to make to derive BBC Scotland's viewing (Adjustments 2-5). Below, we explain our reasoning for this.

A2.51 Firstly, we have updated Frontier CC's opts-benefit analysis, explained above (Adjustment 1), to compare the overall relative performance of opts programming against non-opts programming on BBC Two over the full year 2017. In our analysis, unlike Frontier CC, we have included co-productions (such as *Two Doors Down*) which receive funding from network budgets outside BBC Two Scotland. We think this is a reasonable assumption, for the purpose of assessing the potential take-up of the new channel. Although we do not know the full extent of cross-commissioning opportunities for BBC Scotland, the BBC suggests that the new channel will benefit from partnership programming and hence allow BBC Scotland's budget to stretch further.[46] Therefore, we consider that excluding co-productions from the analysis of opts shown on BBC Two Scotland would potentially understate potential viewing of the BBC Scotland channel.

A2.52 Frontier CC based its analysis of opts performance on combined viewing data of BBC Two SD and HD in Scotland and the rUK across opts and non-opts time slots. We consider this has the potential to understate how well Scottish content might perform relative to network content. This is because opts content on BBC Two Scotland is only broadcast in SD and BBC Two HD in Scotland does not show Scottish opts (instead it broadcasts network content). We consider it is likely that had BBC Two HD in Scotland broadcast opts content, then viewing of opts content could have been higher as some viewers of BBC Two HD may only watch opts if they are available in HD. In addition, it is likely that there is a degree of inertia among HD viewers such that – even if they are interested in Scottish content – they do not switch channels to watch Scottish SD content.

A2.53 Therefore, we have adjusted the above opts outperformance estimates to account for the fact that BBC Scotland will be available in SD and HD. We estimate an uplift percentage of 5.0% is appropriate,[47] which we apply as an uplift only to the average difference in opts relative to rUK.[48]

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[46] BBC PIT, paragraphs 92-93.

[47] The 5.0% figure is based on BARB viewing data that suggested 9.5% of total BBC Two viewing hours was on the HD channel in 2017. If, during periods when opts were shown on BBC Two SD, HD viewers continued to watch BBC Two HD then they would have watched network programming, which generally performs less well than SD programming in Scotland. Hence, our view is that opts outperformance based on SD and HD viewing figures will be 'dragged-down' by HD viewers in Scotland (as network content underperforms the rUK). However, we recognise that a proportion of viewing of BBC Two opts (in SD) may have included viewers who generally watch BBC Two HD in Scotland, but that were attracted to Scottish content. Hence, our uplift is less than if we assumed all HD viewers during particular BBC Two opts slots in 2017 watched network content on BBC Two HD. We have assumed that opts viewing includes half of the viewers who would otherwise have watched BBC Two HD.

[48] We have applied this adjustment to opts only (i.e. the relative performance of SD opts compared to the performance of network programmes in the rUK across the SD and HD channels). In the case of non-opts slots, viewers in Scotland of BBC Two SD and BBC Two HD in 2017 watched the same network content as shown in the rUK. Therefore, the non-opts figures correctly reflect how BBC Two performs in Scotland (relative to the rUK) across BBC Two's SD and HD channels when network content is shown.

A2.54 We have performed the analysis for opts and non-opts programming during the following time periods: daytime, evening (peak and off-peak hours) and overall to reflect the viewing hours of the new channel (see Table A2 2 below).

Table A2 2: Performance of BBC Two opts vs. BBC Two network programming (non-opts) in 2017

	Performance of BBC Two Scotland viewing relative to rUK viewing (pp)			Opts benefit (pp)	Opts benefit (pp) (including HD uplift)
	Opts (unadjusted)	Opts (uplifted)	Non-opts	(unadjusted)	
Daytime (12 noon – 7pm)	1.17	1.22	0.39	0.78	0.84
Evening (7pm – midnight)	1.43	1.50	-0.08	1.51	1.58
Overall (12 noon – midnight)	1.22	1.29	0.15	1.07	1.13

Source: Ofcom analysis based on 2017 BARB viewing data. Individuals aged 4+, BBC Scotland region.

A2.55 Taking into account our opts uplift, overall the results suggest that opts programming on BBC Two in Scotland outperforms its equivalent non-opts programming in the rUK. Between 12 noon and midnight, opts programming outperforms by 1.13 percentage points (or 1.07 percentage points without our HD opts adjustment) in terms of share of viewing hours. This suggests therefore that, on average, opts programming on BBC Two Scotland is more attractive to Scottish audiences compared to network programming. The opts benefit is highest during the evening (7pm-midnight), the new channel's core broadcast hours, where BBC Two Scotland gains 1.58 percentage points of viewing share due to its opts programming (or 1.51 percentage points without our HD opts adjustment).

A2.56 Below we first estimate BBC Scotland viewing between 7pm and midnight. We then estimate viewing between noon and 7pm. Adding these figures together gives overall viewing hours for the channel and hence our viewing BBC Scotland's likely share of overall viewing hours in Scotland.

BBC Scotland viewing between 7pm and midnight

A2.57 We have used the performance of opts programming during BBC Scotland's core broadcast hours (7pm to midnight):

- to estimate the viewing BBC Two may lose as a result of the BBC no longer showing opts on BBC Two Scotland; and
- as our starting point for estimating the potential viewing the new channel may gain given that it will show opts-like content aimed at Scottish viewers.

A2.58 Overall, we estimate that this opts content shown on BBC Two outperforms network content by 1.58 percentage points in the period 7pm-midnight (which translates into a 34% opts uplift). We use this figure, with certain adjustments, to estimate the loss of viewing for BBC Two and the potential take-up for the new channel.

A2.59 We have estimated the impact on BBC Two's viewing from the loss of opts[49] (this is only the impact of the loss of opts and does not include substitution of BBC Two viewers to the new channel). The loss in viewing will only apply to opts programming, which makes up 10% of viewing between 7pm-midnight. Thus, the actual loss of viewing share for BBC Two due to the loss of opts will amount to a loss of 0.15 percentage points.[50]

A2.60 In line with Frontier CC, in order to predict take-up of BBC Scotland, we have started with BBC Two viewing in Scotland in the factual scenario and applied an uplift to this figure (Adjustment 1) based on the new channel showing opts-like content from 7pm-midnight.

A2.61 We have also applied a further adjustment to update the modelling in our Consultation to better reflect the total hours of opts content on BBC Two Scotland shown between 7pm-midnight in 2017 and the proportion of BBC Two Scotland viewing between 7pm-midnight accounted for by opts content.[51]

A2.62 As noted above, Frontier CC downlifted the viewing share it derived from the opts benefit analysis (Adjustment 2) to account for the more competitive environment in peak times. This is because a greater proportion of BBC Scotland's core hours, and hence opts-like programming, will be shown during peak times (7pm-10.30pm), compared to BBC Two Scotland.[52]

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[49] In order to estimate the impact of the loss of opts on BBC Two, we have used the unadjusted figures in Table A2 2 above because we need to adjust for opts that were actually shown on BBC Two. This is a different calculation to our opts adjustment, which attempts to estimate how Scottish content shown on BBC Scotland will perform across the SD and HD channel variants.

[50] The 0.15pp estimate of the loss of BBC Two viewing isolates the impact of BBC Two no longer showing Scottish opts. BBC Two may lose viewers that start watching BBC Scotland, but this is considered at a later stage in our modelling based on our forecast take-up of BBC Scotland.

[51] For the modelling in our Consultation, we applied input assumptions from the Frontier CC model. However, these input assumptions relied on estimates of the proportion of viewing between 7pm-midnight on BBC Two Scotland in 2016. We have therefore updated our analysis from 7pm-midnight to better reflect 2017 data. In our base case, this change alone results in a 0.28pp uplift to our take-up projections for BBC Scotland (i.e. a base case estimate of 2.42% compared to 2.14% presented in our Consultation).

[52] According to Frontier CC, 43% of the opts it analysed on BBC Two Scotland in the 7pm-midnight range were post-peak (after 10:30pm). By contrast, 30% of BBC Scotland's core broadcast hours in the 7pm-midnight range will be post-peak. See Frontier CC report, page 50.

A2.63 However, we examined the performance of BBC Two opts during peak evening hours (7pm-10.30pm) relative to off-peak evening hours (10.30pm-midnight), and our analysis did not suggest BBC Two opts perform any less well in the peak than off-peak evening hours. Indeed, our analysis suggests, if anything, the reverse is true, as the benefit associated with opts programming is highest during peak hours (2.0pp of viewing share relative to 0.10pp off-peak – based on our unadjusted estimates in Table A2 2 above). Opts programming therefore performs well relative to network programming on BBC Two in Scotland even during peak hours.[53] In light of the above, we have chosen not to apply Frontier CC's Adjustment 2 downlift of -14.5%.

A2.64 We also do not completely agree with how Frontier CC translated the lower budget per hour of BBC Scotland relative to BBC Two Scotland into a direct loss in viewing for the new channel. We also consider that BBC Scotland's budget per hour for new content may in fact be higher (Adjustment 4). This is for the three reasons set out below.

A2.65 First, Frontier CC spread BBC Scotland's total budget for content across all evening hours (7pm-midnight) to calculate its budget per hour, even though 50% of its content will be repeats, which are likely to be cheaper than originations.[54] Hence, BBC Scotland's budget per hour for new programmes created for the channel is likely to be higher than implied by Frontier CC's calculation. Moreover, repeats are likely to attract a higher audience than their low cost would suggest,[55] meaning that Adjustment 4 may overstate the impact of BBC Scotland's lower budget per hour.

A2.66 Second, we understand from the BBC's PIT that BBC Scotland could stretch beyond the allocated budget by sourcing content through cross-commissioning and co-commissioning opportunities.[56] For example, in a commissioning brief for the new channel published by the BBC in December 2017[57], the BBC highlighted that drama commissions for the new channel are likely to be in need of significant co-funding. This suggests, therefore, there is

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[53] This is despite the lower per hour budget of opts programming when compared to BBC Two overall during peak times. The outperformance of opts programming therefore suggests that the benefit of showing Scottish focused content outweighs the potential loss from the content's lower spend/hour.

[54] If the repeat is part of an initial package of rights, the BBC will not have to make any further payments, outside of the initial payment (the primary rights licence fee) it made for the programme in the first place. Where the BBC wishes to broadcast additional repeats of a show outside of the initial package of rights, it will make payments that are between 2% and 10% of the initial primary rights licence fee depending on whether the programme was originally broadcast first on network television or as a regional opt. See: http://downloads.bbc.co.uk/commissioning/site/Terms_Of_Trade.pdf

[55] In principle, similar logic might apply to BBC Two Scotland. However, based on our analysis of opts programming in 2017, repeats accounted for a much lower proportion of BBC Two's overall content.

[56] This refers to the commissioning of multiple programmes across different BBC channels or in partnership with one particular channel (e.g. BBC Alba). See BBC PIT, paragraphs 54-57, 93 and 108-109.

[57] BBC Scotland multiplatform commissioning brief, December 2017, http://downloads.bbc.co.uk/scotland/aboutus/commissioning/bbc_scotland_multiplatform_commissioning_brief_dec_2017.pdf

scope for the new channel to attract more viewing than would be implied by its budget per hour.[58]

A2.67 Third, a change in budget per hour may not result in a similar proportionate change in viewing, as there is unlikely to be a one-to-one relationship between programme spend and audience share.

A2.68 Therefore, to account for the overall uncertainty around BBC Scotland's budget per hour and the resulting impact on viewing, we have created alternative scenarios for BBC Scotland based on Frontier CC's assumptions. In particular, we have adjusted Frontier CC's assumptions about BBC Scotland's overall budget and how the change in the budget per hour of BBC Scotland relative to BBC Two Scotland could impact viewing for the new channel (which we refer to as the 'spend-to-viewing scaling factor').[59]

- For our low case scenario, we have adopted Frontier CC's assumptions on the budgets per hour of BBC Two Scotland and BBC Scotland and the spend-to-viewing factor and applied a downlift of minus [✂] on BBC Two Scotland's viewing.
- For our base case scenario, we have applied a lower spend-to-viewing factor (70%) derived using total spend and viewing share figures for BBC spin-off channels in 2016.[60] By applying a factor of less than 100%, we assume that differences in the budget per hour of BBC Scotland and BBC Two Scotland translate into a less than one-to-one impact on viewing. As a result, we have applied a smaller downlift of minus [✂]. By adjusting the spend-to-viewing factor only (and not BBC Scotland's budget per hour), we have considered the possibility that the budget of BBC Scotland relative to BBC Two Scotland opts results in higher viewing than the budget differences might otherwise imply.
- For our high case scenario, we have calculated a higher budget per hour for BBC Scotland's content (7pm-midnight). This value is derived from the BBC PIT's

[58] In our modelling of take-up of the new channel, we used the performance of opts on BBC Two Scotland. We recognise that this analysis may include some BBC Two opts programming that was either cross- or co-commissioned. However, the BBC's PIT appeared to place emphasis on co-commissioning opportunities: *"We are keen for the channel to work in partnership with BBC Alba (and more generally with other parts of the BBC) through cross-commissioning and co-commissioning as this will help limited budgets to stretch further."* Hence, if BBC Scotland relies on more co-commissioned content than is currently the case for BBC Two Scotland opts, then this suggests that the impact of any difference in the headline budget per hour for BBC Two Scotland and BBC Scotland could be smaller. However, given that we have already captured some cross-commissioning opportunities in our opts adjustment, and given the uncertainty over the scope for further cross-commissioning, we have not sought to apply further adjustments.

[59] Frontier CC assumed that a given percentage drop in budget per hour from BBC Two opts programming to BBC Scotland will translate into the same percentage reduction in viewing for BBC Scotland relative to BBC Two Scotland (i.e. a spend-to-viewing scaling factor of 100%). In its sensitivity analysis, Frontier CC allowed this spend-to-viewing scaling factor to vary from 100% in its base case to 120% in its low case and 80% in its high case.

[60] Based on internal calculations using (i) BARB data for share of viewing for BBC spin-off channels across all platforms in 2016 and (ii) estimates of ongoing programme spend (excluding one-off spending) for BBC spin-off channels based on BBC annual reports and Ofcom PSB reports.

assumptions about the hours of original content to be shown on the channel (either originations or acquisitions) and excluding repeats. In excluding repeats, we have assumed that repeats are costless.[61] Again, we have considered a spend-to-viewing factor of 70% which overall translates to a positive uplift of [✂].[62]

A2.69 We combine our results across our low to high scenarios in order to derive a range for the potential viewing the new channel could capture when adjusting for the spend per hour and/or the spend-to-viewing factor (Adjustment 4) (see Table A2 3 below).

Table A2 3: Sensitivity analysis of reduction in viewing of BBC Scotland (relative to BBC Two Scotland) due to changes in the budget per hour and spend-to-viewing factor (Adjustment 4)

	Low	Base	High
BBC Scotland's budget per hour (£k)	£17.3	£17.3	£34.6*
Spend-to-viewing factor (%)	100%	70%	70%
Adjustment of BBC Scotland viewing hours relative to BBC Two Scotland (%)	-[✂]%	-[✂]%	[✂]%

** Budget per hour applies to hours of first-run content only (acquisitions and originations).*

A2.70 We also have concerns around Frontier CC's Adjustment 5 which reflects the boosts that opts currently receive from being positioned on BBC Two. This is mainly because, under the BBC's final proposal, a BBC Two simulcast will be shown during the hours of noon to 7pm on most of the SD and HD channels.[63] Hence, the new channel may still benefit from

[61] Based on the BBC's PIT (Tables 1 and 5), the budget per year for BBC Scotland content (7-12pm) is £31.6m and on the assumption that 50% of hours are repeats, the remaining broadcast hours for new content amount to 912.5 hours per year (£31.6m /912.5 = £34.6k). Indeed, we could in principle, have applied a higher budget per hour assumption. This is because the BBC suggests there would be around 351 hours of news and current affairs (7-midnight), which we assume includes the hours for the one-hour news weekday and fifteen-minute weekend bulletin (5.5 hours per week or 286 hours per annum). The BBC has budgeted around £6.8m for news, which is about £23.8k per hour (£6.8m/286 hours). This could imply that the budget available for non-news (excluding repeats) could be higher than £34.6k.

[62] In our high case scenario, the spend per hour adjustment (Adjustment 4) applied to BBC Two Scotland's viewing hours is positive – we apply a positive uplift to BBC Two Scotland's viewing of [✂] (as opposed to a downlift adjustment of minus [✂] under our low case scenario). We multiply the difference in the budget per hour of both channels ([✂]) with the spend-to-viewing factor (70%) to obtain the adjustment of [✂].

[63] We note that on Freeview, the BBC's proposal is for BBC Scotland HD to broadcast during the core hours from 7pm to midnight. Therefore, it may not benefit from the hammocking and lead-in programming of the BBC Two simulcast. However, we have not attempted to include a downlift to capture a loss of BBC Two positioning for the Freeview HD channel. Frontier CC recognised that its -25% downlift was entirely subjective. Furthermore, the Freeview HD version will still benefit from the proposed marketing and promotion of the channel. Viewers may also be able to achieve 'continuity' in viewing BBC Scotland by switching between the daytime SD and HD channels.

the potential hammocking effects and lead-in programming at 7pm.[64] Furthermore, the benefits associated with promotion of opts programming on BBC Two may be achieved, at least partially, through the marketing and promotion of the new channel, prior to launch and during the first year following launch. In its response to our information request, [✂].[65] In light of the above, we have estimated the take-up of BBC Scotland excluding this adjustment.

A2.71 We agree with Frontier CC's adjustment to reflect the lower EPG position of the new channel relative to BBC Two Scotland using estimates from the FEH Media Insight paper from 2013 (Adjustment 3). The paper estimated the audience impact of EPG prominence across platforms based on empirical evidence from actual EPG changes. In its modelling, Frontier CC made an adjustment of -30% on Sky and -10% on all other platforms (Virgin, Freeview and Freesat). Frontier CC did not update its original analysis for the launch of BBC Scotland HD on a different EPG position to BBC Scotland SD. However, we have reviewed the EPG positions for BBC Scotland SD and HD variants relative to BBC Two Scotland. As opts content was only shown on BBC Two SD, for each platform we have considered whether Frontier CC's assumption would be appropriate if viewers switched their viewing from BBC Two Scotland to the most prominent BBC Scotland SD or HD variant. We consider that Frontier CC's assumptions are appropriate across both the SD and HD channels[66] for each platform (i.e. Sky and Freesat[67], Freeview/Youview and Virgin[68]). Therefore, we have used the same assumptions for our base case.

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[64] For presentational purposes, our analysis first considers take-up for the new channel from 7pm to midnight. When we model viewing for 7pm-midnight for BBC Scotland, we do not count the viewing in other periods (i.e. noon to 7pm), but we do not assume that there is no daytime programming.

[65] BBC's confidential response to Ofcom's information request dated 23 January 2018.

[66] Even though opts were not shown on BBC Two HD, we considered whether the relevant comparison for HD-capable viewers should be between the EPG position of BBC Two HD and BBC Scotland HD. This is because we have applied an additional opts uplift (adjustment 1) to account for the fact that the opts outperformance measured viewing across SD and HD channels even though opts were not shown on BBC Two HD. This would have resulted in a smaller adjustment on Sky and Freesat only (for example, on the Sky platform, as the BBC plans for BBC Scotland HD to replace BBC Two HD's current position in Scotland). However, as the actual opts viewing data we used is based on content shown on BBC Two SD in the second most prominent EPG position (EPG slot 2 or 102) across all platforms, we consider it more appropriate to consider EPG changes from this position to the most prominent BBC Scotland channel (i.e. the SD or HD variant).

[67] On Sky and Freesat platforms for HD-capable viewers, BBC Scotland HD is likely to take the more prominent position and BBC Scotland SD may be much further down the EPG guide. This means that any users moving from watching BBC Two opts in SD to BBC Scotland HD would move an equivalent number of slots on the EPG as SD-only viewers on the Sky and Freesat platforms. However, there are potentially some HD-capable viewers that still tend to watch programmes in SD. If these viewers are on an HD-ready version of Sky or Freesat, the SD channel might be much further down the EPG. In principle, this could suggest a slightly higher EPG adjustment for some HD viewers. However, we have assumed that these users would now switch to the most prominent BBC Scotland channel (i.e. the HD variant).

[68] On Freeview/Youview in HD, the planned difference in the EPG slots for BBC Two HD and BBC Scotland HD is very similar to the difference between BBC Two SD and BBC Scotland SD. Hence, the 'in principle' concern for Sky/Freesat about HD-capable viewers watching BBC Scotland SD in a much lower EPG position does not arise. For viewers on Virgin Media, due to ongoing negotiations, the BBC did not provide the likely EPG position of the new channel, so we have applied the same assumptions for HD and SD.

A2.72 As these plans are yet to be confirmed, and also in light of STV Group plc's comment, we have undertaken sensitivity analysis.[69] In the low case scenario, we assume that the new channel obtains a less prominent EPG position than BBC Four and, in the high case scenario, we assume that the impact of a loss of EPG prominence is smaller than implied by the FEH Media Insight estimates.

Table A2 4: Sensitivity analysis of reduction in viewing of BBC Scotland (relative to BBC Two Scotland) due to loss of EPG prominence (Adjustment 3)

	Low	Base	High
Impact of EPG prominence loss on Sky (%)	-40%	-30%	-20%
Impact of EPG prominence loss on Virgin, Freeview and Freesat (%)	-15%	-10%	0%
Adjustment of BBC Scotland viewing hours relative to BBC Two Scotland (%)	-20.6%	-14.5%	-4.6%

A2.73 We note Frontier CC's comment that BBC Two Scotland is not an exact "template" for the new channel, which is likely to broadcast a range of genres and programmes.[70] Therefore, we have also considered other channels as a cross-check, such as BBC Four, and the results from our consumer survey on the likely take-up of BBC Scotland.

A2.74 In our consumer survey,[71] we asked respondents how likely they thought they would be to watch the new channel between 7pm and midnight and how often they would do so. Around eight in ten (79%) adults[72] in Scotland said they would watch the new channel, with

[69] We note STV Group plc's comment on the potential uncertainty about whether BBC Scotland is able to displace BBC Four on DTT (Freeview). Although we have not explicitly examined the situation described by STV Group plc, we have instead considered a low case scenario where BBC Scotland obtains a less prominent EPG position than BBC Four across all platforms, including Freeview but excluding Sky.
[70] Frontier CC report, page 48.
[71] See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.
[72] When referencing our consumer research, 'adults' in Scotland refers to those aged 16+.

around four in ten saying they were very likely to (44%).[73] Two thirds (67%) of all adults in Scotland would watch the channel at least once a week (this rises to 85% among those that would potentially watch the new BBC Scotland channel).[74]

A2.75 The BBC also commissioned quantitative research from Kantar TNS to explore likely take-up of the new BBC Scotland channel from 7pm to midnight, including how likely Scottish viewers would be to watch the new channel regularly.[75] The BBC's quantitative research found that just over half (52%) of respondents said they would watch the new channel regularly, with around one in six (15%) very likely to watch.[76,77]

A2.76 STV Group also submitted consumer survey evidence on likely take-up of the new channel, [✂[78]].[79]

A2.77 Given the differences between the three surveys (in terms of methodology, sample and questionnaire design), we have not sought to compare the results relating to likely take-up of the new BBC Scotland channel across the three surveys.

A2.78 Given the availability in this case of BARB data on actual viewing behaviour, we did not consider it appropriate to derive a particular estimate of take-up based on these survey results, as we would have to make assumptions about how likelihood of viewing and frequencies would translate into minutes of viewing per user. This is in addition to the caution that needs to be exercised when interpreting responses to hypothetical questions about likely take-up of new services that do not yet exist. Such results are only indicative as respondents give hypothetical answers which might not accurately reflect their interest in potential new services. Therefore, we have chosen to base our take-up estimates for the new BBC Scotland channel on BARB viewing data for BBC Two Scotland, an existing service which is also the closest proxy available for BBC Scotland in terms of Scottish content currently available on the channel.

A2.79 In summary, our overall approach to estimating the take-up of the new BBC Scotland channel (7pm-midnight, excluding daytime hours) is as follows: we have updated Frontier CC's analysis using 2017 BARB viewing data and have used BBC Two viewing as our starting point; we have applied an upward adjustment for the outperformance of BBC Two Scotland opts; we have then applied adjustments for changes in the EPG prominence and budget per hour of BBC Scotland relative to BBC Two Scotland as summarised in Figure A2 5 below.

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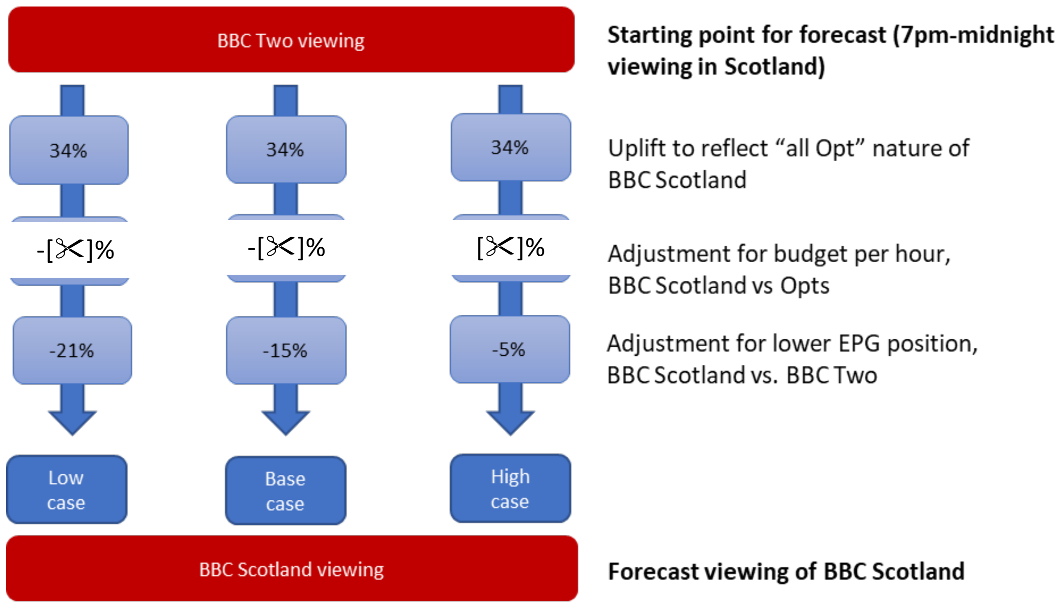
[73] BBC Competition Assessment: Scotland research – Chart pack, slides 13 and 16, Question B1: On a scale of one to five, how likely do you think you would be to watch the new BBC Scotland channel? Base: All adults aged 16+ (n=1,111).
[74] BBC Competition Assessment: Scotland research – Chart pack, slide 17, Question B2: How often do you think you would watch the new BBC Scotland channel? Base: All adults aged 16+ (n=1,111), Those who think they would watch the new BBC Scotland channel (n=878).
[75] Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 21.
[76] Q.10 How likely would you be to watch this channel regularly? Base: All adults aged 16+ in Scotland (1,038).
[77] While the results of our consumer survey on the likelihood of watching BBC Scotland are broadly similar to the results of the BBC's quantitative research, a direct comparison is difficult due to differences in the questionnaire design.
[78] [✂]
[79] [✂]

Figure A2 5: Summary of adjustments



Source: *Ofcom*

A2.80 To account for the inherent uncertainty associated with these adjustments, we have undertaken a sensitivity analysis to derive the range of take-up estimates for BBC Scotland's viewing share (excluding daytime hours) in 2019 presented. Table A2 5 below sets out our scenario assumptions and Table A2 6 presents the results for each scenario.

Table A2 5: Summary of different assumptions applied in our low, base, and high cases

	EPG prominence loss impact (%)		BBC Scotland budget per hour (£)	Spend-to-viewing factor (%)
	Sky platforms	Other platforms		
Low case	-40%	-15%	£17,315	100%
Base case	-30%	-10%	£17,315	70%
High case	-20%	0% (i.e. no adjustment)	£34,630	70%

Table A2 6: BBC Scotland's share of all Scottish viewing based on its viewing in the evening (7pm-midnight) (in 2019)

	Low	Base	High
Frontier CC's approach (BBC Two opts 2016/17)	-	0.92%	-
Our approach (BBC Two opts 2017)	1.71%	2.25%	3.96%

A2.81 Based on the viewing it is likely to attract during evening hours (7pm to midnight), we estimate BBC Scotland would achieve a share between 1.71% and 3.96% of all TV viewing in 2019 (steady state year). Under our base case assumptions, we estimate the new BBC Scotland channel (excluding daytime hours) will capture a viewing share of 2.25% in 2019 (1.34pp increase relative to Frontier CC's base case).

A2.82 We have cross-checked our range of take-up estimates for BBC Scotland using BBC Four as a benchmark for the likely take-up BBC Scotland may achieve. We consider BBC Four is an appropriate benchmark because it has a similar scale to the new BBC Scotland channel, in terms of core broadcasting hours, though it has a higher budget.[80] In addition, BBC Four currently occupies the EPG positions that BBC Scotland will take over on [✂] in Scotland.

A2.83 In 2017, based on linear and catch-up viewing, BBC Four achieved a viewing share of 0.96% in Scotland. We recognise this falls outside our estimated take-up range for BBC Scotland of 1.71% to 3.96% derived using BBC Two Scotland viewing as a starting point and making adjustments. However, given the age and demographic profile of BBC Four's audience, we consider that BBC Four's appeal could be more limited and less wide-ranging compared to BBC Two Scotland and the new BBC Scotland channel, which is expected to show a broader mix of genres. Therefore, we consider that BBC Scotland is more likely to achieve a viewing share that is closer to our estimated take-up range than BBC Four.

BBC Scotland viewing between 12 noon and 7pm

A2.84 We have followed a similar approach to Frontier CC to estimate the potential viewing impact BBC Scotland could have during the hours of 12 noon to 7pm.

A2.85 Frontier CC estimated a viewing share of 0.92% absent daytime content. As a sensitivity, it estimated a viewing share of 0.95% when including daytime opts and excluding viewing of the BBC Two simulcast. If the BBC Two simulcast is included as well as daytime opts, Frontier CC estimated a viewing share of 1.09% for BBC Scotland.

[80] BBC Four's broadcasting hours are 7pm to 4am daily and it had a headline content budget of £50.5m in 2016/17. See BBC, Annual Report and Accounts 2016/17, page 25.

A2.86 In Table A2 2 above, we have updated Frontier CC's opts benefit analysis to account for 2017 BARB viewing data adjusted for HD, which suggests that daytime opts programming outperforms non-opts programming by 0.84 percentage points. We have applied this figure to BBC Two's viewing between 12 noon and 7pm after adjusting to account for that at most the daytime opts will only amount to 150 hours per year.[81] We have also applied a further adjustment to update the modelling in our Consultation to better reflect: the total hours of opts content on BBC Two Scotland shown between 12 noon and 7pm in 2017; the proportion of total BBC Two Scotland viewing between 12 noon and 7pm; and the proportion of daytime viewing on BBC Two Scotland accounted for by opts content.[82]

A2.87 We have also taken into account the impact on viewing of a loss in EPG prominence by applying a reduction of -14.5%, similar to that applied for the take-up of BBC Scotland between 7pm and midnight.[83] Based on our calculations, we estimate that BBC Scotland could gain a share of 0.06 percentage points from the broadcast of daytime opts programming.

A2.88 We have also undertaken a sensitivity analysis solely based on our assumption about the likely impact of a loss of EPG prominence for the additional daytime opts programming moving to BBC Scotland. Reflecting the calculations in Table A2 4 above, we assume that the viewing impact from a loss in EPG prominence for BBC Scotland relative to BBC Two could range from -20.6% and -4.6% to derive our low and high case viewing impact.

Table A2 7: Estimated BBC Scotland viewing share for 150 hours of daytime opts programming in 2019

	Low	Base	High
Frontier CC's approach (BBC Two opts 2016/17)	-	0.032%	-
Our approach (BBC Two opts 2017)	0.058%	0.063%	0.070%

[81] We note that Frontier CC modelled the viewing impact for 140 hours, whilst the BBC's PIT mentioned that daytime coverage could amount to up to 150 hours per year (see Frontier CC report, page 58; and BBC PIT, page 3). We have based our calculations on the BBC's proposal for 150 hours of daytime opt programming to understand the maximum impact BBC Scotland could have on daytime TV viewing.

[82] For the modelling in our Consultation, we applied input assumptions from the Frontier CC model. However, these input assumptions relied on estimates of the duration and proportion of opts shown on BBC Two Scotland in 2016. We have therefore updated our analysis from 12 noon to 7pm to better reflect 2017 data. In our base case, this change results in a 0.02pp uplift to our take-up projections for BBC Scotland.

[83] We assumed the budget for these daytime opts (which currently show live political broadcasts and some sports events) remains largely unchanged, so a modification akin to Adjustment 4 is not warranted. Furthermore, we have no reason to consider any other adjustments are appropriate as the daytime opts are likely to be shown at similar times of day. Therefore, there is no reason to believe the competitive environment on BBC Scotland will be any different to current viewing of those programmes on BBC Two.

A2.89 Based on this, we estimate that BBC Scotland's gain could range from 0.058 to 0.070 percentage points (see Table A2 7 above). The impact on additional annual viewing is overall quite small based on the BBC's plan to show up to 150 hours of original programming on BBC Scotland, which is less than 3% of the planned broadcast hours of noon to midnight. These estimates rely on current daytime opts performance on BBC Two Scotland. It is possible that daytime opts could perform better, for example, if the BBC changed the mix of programming (e.g. if it shifted a large proportion of daytime coverage towards sports rather than political coverage). On the other hand, the mix could change in the other direction. Furthermore, this estimated gain could be smaller if BBC Scotland were to broadcast less than 150 hours.

A2.90 In addition to the daytime opts programming, the BBC Scotland proposal also includes a simulcast of BBC Two in daytime hours (from noon to 7pm) when original Scottish programming is not shown. Frontier CC explained that as a simulcast is effectively a +0 channel, it based its take-up estimates on the assumption that the BBC Two simulcast on BBC Scotland would perform as well as +1 channels perform relative to their parent channel (i.e. ITV+1 relative to ITV). Frontier CC's assumption was that +1 channels typically attract about 10% of the viewing hours of their parent channel. Frontier CC estimated that the BBC Two simulcast (rather than barker material) would increase BBC Scotland's viewing share by 0.14 pp.[84]

A2.91 Frontier CC did not indicate how it had derived the 10% figure for the performance of +1 channels. We consider the figure is likely to overestimate viewing of the BBC Two simulcast (+0 channel), based on two factors. First, our previous analysis of +1 channels predicted that a proposed new BBC One+1 channel would attract incremental viewing close to 5% of the viewing of its parent BBC One channel.[85] Second, we consider that a simulcast (i.e. showing the same content on two channels at the same time) is likely to attract lower audiences than a +1 channel. We have used BBC Two's viewing share for non-opts (network programming) in Scotland (5.6%) in 2017 to estimate the potential viewing the BBC Two simulcast service could attract. Rather than Frontier CC's 10% figure,

[84] Frontier CC also adjusted this uplift for the proportion of total viewing hours for the simulcast on BBC Scotland (25.47% of all hours – based on daytime viewing hours on BBC Two Scotland (less retained opts) as a percentage of all BBC Two Scotland viewing). Therefore, Frontier CC's final estimate was based on BBC Two's overall viewing share of 5.4% * 10% * 25.47%.

[85] In our Market Impact Assessment of the BBC's proposals to introduce a new BBC One+1, we undertook our own regression analysis on existing data (eight channels with a +1 equivalent) to estimate how BBC One+1 would perform (taking into account various determinants of +1 performance such as EPG position, etc). The output of this analysis was that, of the 1.2% share of viewing we forecast BBC One+1 to have, 0.9pp would be incremental to BBC One (i.e. captured from other channels) and 0.4pp would come from BBC One, which compares to BBC One's viewing share (at that time) of 21.7%. Relative to the share of the parent channel, the additional viewing of 0.9pp for BBC One+1 would be closer to a 5% uplift value (compared to Frontier CC's 10% figure). See Ofcom, Proposed changes to BBC Three, BBC iPlayer, BBC One and CBBC, Market Impact Assessment, 30 June 2015, (data taken from paragraphs 4.15 and 9.47), https://www.ofcom.org.uk/__data/assets/pdf_file/0016/68110/market_impact_assessment_report.pdf

we have applied a 5% figure after adjusting for the relevant proportion of hours (12 noon – 7pm) to estimate a viewing share gain of 0.10 percentage points in 2019 from the simulcast service (0.04pp decrease relative to Frontier CC's estimate).[86]

Overall BBC Scotland viewing

A2.92 In total, under our base case, we estimate that BBC Scotland could achieve a viewing share of 2.42% in 2019, across its entire schedule from 12 noon to midnight (see Table A2 8 below). This includes viewing from:

i) the channel's core broadcast hours between 7pm and midnight (2.25pp);

ii) the 150 hours of daytime opts programming between 12 noon and 7pm (0.06pp); and

iii) a BBC Two simulcast service between 12 noon and 7pm to fill schedule gaps (0.10pp).

Table A2 8: Estimated BBC Scotland viewing share across its entire schedule (noon to midnight) in 2019

	Low	Base	High
Frontier CC's approach (BBC Two opts 2016/17)	-	1.09%	-
Our approach (BBC Two opts 2017)	1.87%	2.42%	4.13%

A2.93 Based on a sensitivity analysis for the spend per hour and loss of EPG prominence of BBC Scotland relative to BBC Two Scotland (our starting point), we estimate that overall BBC Scotland's viewing share could range from 1.87% to 4.13% in 2019 (our base case is 2.42%) (see Table A2 8 above). We estimate that its average weekly reach could range from 10.99% to 24.21% in 2019 (our base case is 14.18%) (based on the relationship between viewing share and average weekly reach estimated by Frontier CC).[87] These estimates are higher than the figures presented in the Consultation as a consequence of the adjustment described in paragraph A2.61 and A2.86 above.

[86] On DTT, there will be no BBC Two HD simulcast, as the channel will only broadcast from 7pm to midnight. However, we have not applied a downlift to our figures for a lack of simulcast on Freeview in HD. Total viewing of BBC Scotland on HD on Freeview is likely to be relatively small, so we would be applying an adjustment to an already very small number. In addition, a proportion of the simulcast viewing on BBC Scotland may occur because viewers watch daytime opts (so some HD-capable viewers will already be on BBC Scotland SD on Freeview). Therefore, it is not clear what the full extent of this downlift would be.

[87] Frontier CC calculated a reach per share point of 5.87 for BBC Scotland, based on the relationship between viewing share and average weekly reach of smaller BBC and non-BBC spin-off channels.

Changes of viewing for BBC Two, BBC Four and CBBC

A2.94 We also need to consider the potential direct changes in viewing for BBC Two, BBC Four and CBBC resulting from the BBC's proposal. This is because BBC Two, BBC Four and CBBC will experience direct changes in their services in Scotland. BBC Two will end its opts programming, BBC Four will move to a lower position on the EPG [✂] and, on Freeview CBBC HD will not be broadcast from 7pm to 9pm. Each change is likely to lead to a direct loss in the viewing of the changed service.

Summary of the approach in the BBC's PIT

A2.95 Frontier CC recognised that on average opts programming tends to outperform network programming on BBC Two during the evening.[88] Therefore, it acknowledged that the replacement of evening opts programming with network programming will result in a loss of viewing for BBC Two in Scotland. Frontier CC estimated a viewing impact of BBC Two of absent the opts programming of -1.21% (applied to BBC Two viewing 7pm to midnight in 2019), equivalent to a loss of 0.08pp in BBC Two's share (7pm to midnight). However, Frontier found that the loss of opts in the daytime might increase BBC Two's share of the daytime audience in Scotland.[89] The net effect of the loss of daytime and evening opts on BBC Two's overall share was 0.03 percentage points.

A2.96 Similarly, Frontier CC noted that the replacement of BBC Four with BBC Scotland on the EPG [✂] will result in a loss of viewing for BBC Four.[90] Frontier CC estimated the likely loss of viewing based on the paper by FEH Media Insight in 2013, the same source used to estimate the viewing impact adjustment associated with BBC Scotland's lower EPG position relative to BBC Two Scotland. Frontier CC predicted an average decline of 16.2% in viewing for BBC Four,[91] which corresponds to a 0.15 percentage points reduction in its viewing in 2019.

A2.97 Frontier CC's modelling did not consider the impact of a loss of broadcast hours on CBBC HD from 7pm to 9pm, although in response to an information request the BBC considered the impact would be insignificant.[92]

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[88] Frontier CC report, section 5.3.1.
[89] However, in the daytime, Frontier CC also estimated that network content on BBC Two attracted a higher viewing share in Scotland than in the rest of the UK, and daytime opts did not always outperform by a similar amount. Therefore, Frontier CC estimated that the loss of opts during the day may actually increase BBC Two's share of daytime viewing.
[90] Frontier CC report, section 5.3.3.
[91] The Frontier CC report originally estimated a viewing share decline of 22% (page 51). This figure was updated following the BBC's proposal to launch BBC Scotland in SD and HD in light of the latest EPG slot assumptions for BBC Four and assumes the following viewing impacts across platforms: Sky (0%), Virgin (-30%), Freeview (-20%) and Freesat (-10%).
[92] The BBC did not express this in terms of viewing hours, but considered that up to 400 households might be affected, based on a high-level estimate of the average audience for CBBC in HD in Scotland on Freeview platforms. See BBC response of 4 April 2018 to Ofcom request for information, pages 5-6.

Our approach

A2.98 We have used Frontier CC's approach to estimate the potential impact on viewing for both BBC Two and BBC Four, but with one small adjustment to its BBC Four EPG adjustment. We consider that any change to CBBC viewing, if any, is likely to be very small.

A2.99 For BBC Two, we have updated the opts outperformance analysis using 2017 BARB viewing data, the most recent data available. Based on this, we estimate a viewing impact of -2.57% on BBC Two absent the opts programming between 7pm to midnight. This figure is higher than Frontier CC's estimate using 2016 BARB viewing data (1.35pp higher). We have also estimated the likely viewing impact on BBC Two from the loss of daytime opts programming using Frontier CC's approach,[93] so that, in total, we estimate a viewing impact of -0.07pp on BBC Two in 2019 (based on its loss of opts 12 noon – 12 midnight).

A2.100 For BBC Four, we have calculated the viewing impact of a loss of EPG prominence resulting from the BBC's proposal using estimates from the FEH Media Insight paper prepared for Ofcom in 2013. The paper uses empirical evidence from channels that experienced EPG position reshuffles between 2010 to 2012, and is thus fairly old. However, we do not have more recent evidence to provide an alternative view of the relationship between EPG position and viewing share over time. Therefore, we have used the paper's results to estimate the potential loss in BBC Four's viewing relative to our counterfactual. We made one small adjustment to Frontier CC's assumptions, as it applied the same large EPG adjustment to BBC Four for all viewing on the Freeview platform, whereas these EPG changes only apply to BBC Four SD on Freeview. Any changes in EPG position of BBC Four HD are likely to be 'minor' which, when combined with changes on other platforms, suggests an adjustment of -15.8% (rather than the -16.2% Frontier CC applied).[94,95]

A2.101 For CBBC, the loss of viewing hours from 7pm to 9pm on CBBC HD on the Freeview platform would be very small. Based on BARB viewing data, CBBC HD had a share of all viewing of 0.11% in 2017 (CBBC SD had a 0.10% share) across all platforms. We also estimate that viewing on Freeview between 7-9pm accounted for 8.3% of the total CBBC HD viewing, across all platforms, over the whole day. Hence, the loss of these viewing hours means that CBBC HD could lose up to 0.009pp of its viewing share across all

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[93] Frontier CC's model estimated that [✂] of daytime opts were shown on BBC Two Scotland. Frontier CC estimated the proportion of these opts that was content (i.e. live political events, sports, etc) that would be 'retained' (in the sense that it would be shown on BBC Scotland (noon-7pm) and no longer shown on BBC Two Scotland). However, there were some hours of opts currently shown in the daytime on BBC Two Scotland that would not move to the new channel and would be replaced with network content on BBC Two Scotland. Frontier CC estimated the impact on BBC Two's viewing hours from the loss of retaining opts programming be -0.021% and the impact from a loss of other opts on BBC Two to be 0.095%. The latter impact is positive as Frontier CC factored in that 'other opts' on BBC Two may not perform as well as network programming in Scotland during the daytime. Overall, the net impact of the loss of all daytime opts programming translates into a positive viewing share impact of 0.004 percentage points for BBC Two.

[94] Once the EPG impact has been scaled for online viewing, the actual EPG adjustment is -15.7%.

[95] It may be relevant to note that, in a speech dated 8th March 2018, Sharon White (Ofcom CEO) announced that later this year Ofcom will consult on updates to the EPG Code. See https://www.ofcom.org.uk/about-ofcom/latest/media/speeches/2018/british-tv-digital-age and https://www.ofcom.org.uk/__data/assets/pdf_file/0026/111896/Public-service-broadcasting-in-the-digital-age.pdf.

platforms due to the change to Freeview broadcast hours. However, we note that Freeview viewers will still be able to watch CBBC content in HD via the iPlayer or CBBC SD (which is located in a very close EPG slot on Freeview). Hence, the loss of viewing to CBBC across its SD and HD variants is likely to be very much less than 0.01pp. Accordingly, we have not included this in our modelling.

Summary of changes to BBC viewing

Our approach

A2.102 By comparing the counterfactual with the factual, we can now estimate the potential impact on viewing directly for the BBC as a result of the launch of BBC Scotland. This includes the viewing captured by BBC Scotland and the viewing lost by BBC Two and BBC Four, due to the loss in opts programming and EPG prominence, respectively. This excludes any substitution due to BBC Scotland drawing viewing from BBC Two and BBC Four. Based on the take-up range for BBC Scotland viewing (including 7pm-midnight, daytime opts programming and BBC Two simulcast) set out in Table A2 8 above, we estimate the following changes in viewing shares in 2019 (see Table A2 9 below).

Table A2 9: Net change (pp) to BBC's viewing share as a result of the direct impact on BBC Two and BBC Four under our range of scenarios for BBC Scotland take-up[96]

Viewing share (pp)	Low	Base	High
BBC Two	-0.07pp	-0.07pp	-0.07pp
BBC Four	-0.15pp	-0.15pp	-0.15pp
BBC Scotland	1.87pp	2.42pp	4.13pp
Net change	1.66pp	2.20pp	3.91pp

A2.103 The BBC's overall gain in viewing outweighs the loss in viewing estimated for BBC Two and BBC Four in 2019 even under our low impact scenario (i.e. even under our low take-up scenario for BBC Scotland). The net change to BBC viewing remains positive in all years between 2018 and 2023.

[96] Due to rounding, the direct viewing share impacts on BBC Two and BBC Four, combined with BBC Scotland take-up, do not equal the net change in viewing share.

Changes to BBC viewing: stakeholder responses to our Consultation and our final views

Stakeholder responses to our Consultation

A2.104 Some stakeholders (STV Group and the ACS) noted that take-up of the new BBC Scotland channel could be higher than the viewing share range we forecast in our Consultation and therefore the financial impact on rival commercial services could be larger than we estimated.

A2.105 Stakeholders noted the BBC's plans for the new channel to include repeats or simulcasts of popular BBC programmes could generate large audiences.[97] STV Group argued that showing Scottish-focussed BBC One programmes (premieres, simulcasts or repeats) on BBC Scotland would increase its viewing share.[98] Similarly, the ACS argued that audience share could be much higher than we predicted if *"the BBC chooses to run repeats of popular, high rating series such as 'Still Game', with the ability to cross-promote these programmes across all their channels and online"*.[99] Further, STV Group raised a concern that popular Scottish-focussed BBC One programmes (premieres, simulcasts or repeats) might even move permanently from BBC One Scotland to the new channel, which could pose additional risks to rivals, if additional popular network programmes were shown on BBC One Scotland.[100]

A2.106 STV Group pointed to other reasons our modelling may have understated potential take-up of the new channel. It noted that our modelling relied on the performance of BBC Scottish opts programming on BBC Two, whereas the commissioning briefs that the BBC has issued ahead of launch of the new channel were for 'mass-market, populist programmes' more akin to BBC One output.[101] Furthermore, STV submitted that we had not considered that the actual cost (and viewing) for programming on BBC Scotland could be higher than implied by BBC Scotland's budget set out in the BBC's PIT (and our viewing forecasts), as the BBC's commissioning brief had indicated the 'right ideas' could attract network or BBC Worldwide investment.[102]

A2.107 [✂[103]]

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[97] STV Group plc's confidential response to Ofcom's "Consultation", page 6; and ACS response to Ofcom's consultation, pages 3-4.
[98] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[99] ACS response to Ofcom's "Consultation", pages 3-4.
[100] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[101] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[102] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[103] [✂]

A2.108 [✂[104] [105] [106]]

A2.109 [✂[107]]

A2.110 [✂[108] [109]]

A2.111 [✂[110]]

Our final views

A2.112 We recognise that there are significant uncertainties around take-up of the new BBC Scotland channel and we do not consider that it is possible to estimate take-up and substitution precisely. Our objective is to ensure that the broad magnitude of our estimates is credible.

A2.113 We have reviewed our forecasts for take-up of the new BBC Scotland channel in light of stakeholders' comments. We consider that our revised base case projection of 2.42% provides a realistic view of the likely performance of the new channel. It is built up systematically from the available evidence (e.g. viewing of similar content on BBC Two Scotland) and takes into account a range of reasonable and well-founded modelling assumptions.

A2.114 STV Group and the ACS raised concerns that the take-up of BBC Scotland could be higher than the range of 1.65% to 3.65% we presented in our Consultation. Our revised low and high case scenarios result in a projected take-up for the new channel of between 1.87% and 4.13%. In light of how we have constructed our high case, comparisons with channel benchmarks and take-up estimates presented by Frontier CC [✂], we have attached a lower probability to our high case scenario. Each of our scenarios combines a number of individual assumptions. While each of the individual assumptions underlying our high case is credible, we consider that these are less likely than those underlying our base case. For example, under our high case, we assume there is no impact on BBC Scotland's viewing (relative to BBC Two Scotland) from its lower EPG prominence on non-Sky platforms, which is a smaller impact than implied by the FEH Media Insight estimates (see paragraph A2.72 above). Moreover, our high case represents the cumulative impact of combining a number of possible but low probability assumptions.

A2.115 Whilst we recognise there are uncertainties around estimating take-up, and in light of the revisions we have applied to the modelling in our Consultation, we believe it is very unlikely that the new BBC Scotland channel will perform at the top end of our forecast range. As we set out below, the upper limit of our forecast range would suggest significant

[104] [✂]
[105] [✂]
[106] [✂]
[107] [✂]
[108] [✂]
[109] [✂]
[110] [✂]

outperformance of BBC Scotland relative to the performance of other benchmark channels and compared with the take-up estimates presented by Frontier CC [✂].

A2.116 Furthermore, having considered the specific points made by stakeholders, the available evidence does not give support to the view that BBC Scotland's performance would be much better than our modelling suggests. Our modelling of BBC Scotland's take-up has not explicitly considered the inclusion of premieres, simulcast or repeats of popular BBC One programming. Nevertheless, we have considered the typical performance of opts programming shown on BBC One, and this further analysis does not suggest we should adjust our take-up estimates. We consider that our take-up estimates are reasonable in light of the available evidence and, even if we did include BBC One programming, this would not materially affect our estimates. We recognise the potential for the BBC to include premieres, simulcasts or repeats of Scottish-focussed BBC One programmes on the new channel and for these programmes to perform well. However, we consider that our modelling captures a wide range of scenarios for the performance of BBC Scotland.

Cross-check against the performance of other channels

A2.117 We have benchmarked the performance of other channels as an additional way of checking the reasonableness of our forecasts. As the new channel will be taking over BBC Four's current EPG slot on [✂], BBC Four is a candidate benchmark, alongside BBC Alba. BBC Four had a headline content budget of £50.5m in 2016/17[111] and a viewing share of 0.95% in Scotland; BBC Alba's headline content budget for programmes was around £9m in 2016/17[112], and we estimate it has a viewing share of c.1%.

A2.118 Therefore, BBC Scotland's content budget sits somewhere between that of BBC Alba and BBC Four, which both achieve relatively modest viewing shares (c.1% of viewing hours in Scotland). Stakeholders' suggestion that take-up for the new channel could exceed our high case thus seems unlikely – it would imply that BBC Scotland would have to perform far better than BBC Four (which has a higher budget, although it does not show content that is designed to appeal specifically to Scottish audiences) and BBC Alba.[113] Overall, we consider it is unlikely that the new channel would achieve take-up beyond our high case estimate, as this would imply a viewing share performance that is closer to BBC Two (which accounted for 5.79% of Scottish viewing in 2017) and Channel Four (which accounted for 4.90%)[114], both of which have significantly higher content budgets and significantly more prominent EPG positions than the proposed new channel.

[111] BBC, Annual Report and Accounts 2016/17, page 25.
[112] MG ALBA, Annual Report and Statement of Accounts 2016-17, page 25.
[113] [✂]
[114] These figures are taken from 2017 BARB viewing data and do not include any viewing uplifts.

[✂] modelling comments

A2.119 [✂[115]] This is significantly lower than our base case estimates of 5.20% (7pm-midnight viewing share) and 2.42% (all-day viewing share) respectively.

A2.120 [✂[116]] Table A2 10 below compares two of the adjustments we have applied to BBC Two viewing with those applied by Frontier CC [✂].

Table A2 10: Comparison of two of the adjustments applied to BBC Two viewing

	Adjustment 4: Reduction for lower spend per hour	Adjustment 5: Reduction for loss of BBC Two Positioning
Frontier CC's approach	-[✂]%	-25%
[✂]	[✂]	[✂]
Ofcom scenarios (Low, Base, High)	-[✂]%, -[✂]%, +[✂]%	0% (i.e. no adjustment)

A2.121 The assumptions we applied for Adjustment 4 (base and high cases) and Adjustment 5 (all cases) resulted in higher take-up predictions for BBC Scotland than Frontier CC [✂]. In addition, for Adjustment 3 (i.e. reduction for impact of a loss of EPG positioning) we have considered in our high case smaller downward adjustments than suggested by either Frontier CC [✂]. Furthermore, across all cases, we have not applied Adjustment 2 (i.e. reduction for more competitive environment at peak times).

A2.122 Another reason for our higher estimates of BBC Scotland take-up is our use of BBC Two opts viewing data for 2017 (rather than 2016). Nevertheless, if we used 2017 BARB viewing data but applied [✂] suggested adjustments instead of our own,[117] this would imply an all-day viewing share for BBC Scotland of between 1.6% and 2.1%, with a base case of 1.8% (compared to our revised estimated range of 1.9% to 4.1%, with a revised base case of 2.4%). Hence, our projected range for BBC Scotland take-up is some way above the estimates generated by [✂] even when updating for 2017 BARB viewing data.

[115] [✂]
[116] [✂]
[117] To calculate this range, we used 2017 BARB viewing data, which suggests an opts-uplift of 34% (Adjustment 1), but then applied [✂] suggested adjustments (i.e. Adjustment 4 and Adjustment 5 as set out in Table A2 10) instead of our own. We kept Adjustment 2 (i.e. reduction for change in mix to more competitive environment at peak) and Adjustment 3 (i.e. reduction for lower EPG position of BBC Scotland) the same as Frontier CC applied in its base case.

Using BBC One Scottish opts as a benchmark

A2.123 Some stakeholders suggested that some of the content on BBC Scotland may be closer to programmes currently shown on BBC One Scotland, which perform even better than equivalent opts shown on BBC Two in Scotland. For example, STV Group was concerned that BBC Scotland may be commissioning 'mass-market, populist' programmes which are closer to the content shown on BBC One.[118]

A2.124 We consider that using the performance of BBC Two Scotland as a starting point for the estimation of take-up of BBC Scotland is reasonable as the BBC's proposal identified specific opts programming which would move across from BBC Two Scotland to BBC Scotland. [✂[119]]

A2.125 We recognise that BBC One opts could provide an alternative benchmark for the relative attractiveness of Scottish content (compared to network content) on BBC channels. We have therefore analysed the share of some of the largest opts on BBC One Scotland (*River City*, *Landward*, *Reporting Scotland*, *Sportscene*[120] and *Sunday Politics Scotland*) compared to the share of network content based on 2017 BARB data. On average these opts programmes perform 2.41pp better than content broadcast in the same slots in the rUK. However, this comparison potentially overstates the performance of these opts, as more generally BBC One share in Scotland is 0.63pp more than BBC One share in the rUK.[121] Taking both of these effects together - as we did for our original BBC Two opts analysis - outperformance of Scottish opts on BBC One is equal to 1.78pp[122], which is similar to the unadjusted opts benefit for BBC Two opts of 1.51pp presented in Table A2 2 above.[123]

A2.126 Applying an uplift of 1.78pp based on the outperformance of BBC One Scotland opts is unlikely to materially increase our take-up estimates (which were derived using an uplift based on the outperformance of BBC Two Scotland opts). Moreover, we consider that BBC Two opts are more likely to be a closer benchmark for analysis of the likely performance of the new channel than BBC One opts.

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[118] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[119] STV Group plc's confidential response to Ofcom's "Consultation", page 6; and [✂].
[120] We have looked at the performance of four programmes under the *Sportscene* brand: *Sportscene*, *Sportscene Highlights*, *Sportscene Results* and *Sportscene Scottish Cup Final Highlights*. In analysing the overall performance of *Sportscene*, we have used a weighted average of these four programmes.
[121] The 0.63pp figure is based on the difference in BBC One total viewing hours in Scotland and rUK, excluding any viewing that occurs in the five opts time slots in Scotland and the rUK.
[122] 1.78pp is derived as 2.41pp minus 0.63pp.
[123] Our analysis did show some variation in the performance between BBC One opts. However, we did not consider that it would be reliable to consider the outperformance of individual programmes, as it is possible that their performance may depend on programming shown on other channels at the same time and the performance of content shown in the rUK in the same slots on BBC One.

Potential for BBC One Scottish opts to move to the new channel

A2.127 STV was concerned that simulcasts, repeats and/or existing BBC One programmes may be broadcast on BBC Scotland.[124]

A2.128 It remains open to the BBC to review which programmes it shows on BBC One opts slots and on the new channel. However, the BBC's PIT did not set out any plans to reduce the volume of hours of (or investment in) BBC One opts.

A2.129 Even if some BBC One opts programmes did permanently move across from BBC One, they are likely to attract a lower audience than at present since some of their current audience is likely to reflect their position on BBC One (the most prominent channel in the UK). Moreover, maintaining the budget of programmes that move across from BBC One would diminish the budget available for other BBC Scotland programmes.[125] Furthermore, any BBC programme that did move would only make up a small proportion of BBC Scotland's total hours.

Broadcasting BBC One content on BBC Scotland

A2.130 It is possible that simulcasts and repeats of Scottish-focussed BBC One programmes may be broadcast on BBC Scotland and that, due to their mass market focus, they may increase the new channel's viewing share. However, we consider there are a number of reasons why the impact of this may be limited:

- As noted in paragraph A2.91 above, our previous analysis of +1 channels predicted that a proposed new BBC One+1 channel would attract incremental viewing close to 5% of the viewing of its parent BBC One channel, and our view was that a simulcast is likely to attract lower audiences than a +1 channel. Therefore, we consider that a simulcast of Scottish-focused BBC One programming on BBC Scotland would likely attract at most 5% of the viewing of the programme on BBC One Scotland, which would not generate viewing shares for BBC Scotland above our high-case scenario. Indeed, our analysis of some of the largest opts on BBC One suggests they achieved a viewing share in 2017 of 23.8% which, if we were to adopt the 5% assumption for viewing of simulcasts on a separate channel, would imply a viewing share of 1.2%, which is below our base case estimate of 2.42% viewing share for the new channel.[126]

[124] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[125] A 2011 NAO report into the BBC's management of the costs of producing continuing drama series estimated a cost per hour for *River City* of £156,000 (although these costs had reduced significantly over a 10-year period - down from £210,000). This cost per hour is significantly in excess of the implied average (per hour) budget for the new channel for non-news programming and higher than individual programme budgets set out in BBC Scotland's commissioning briefs. See BBC Scotland multiplatform commissioning brief, December 2017 and February 2018.
[126] In its modelling, Frontier CC applied an assumption of 10% rather than 5% for simulcast viewing on the new channel. This would equate to a 2.4% viewing share, which is very close to our base case estimate of 2.42% viewing share for the new channel.

- Even if a BBC One programme moved to BBC Scotland and performed well (i.e. in line with their outperformance relative to BBC One network programming), this would be unlikely to significantly boost BBC Scotland's overall viewing share as this programme would only make up a small proportion of BBC Scotland's total hours.
- Even if BBC One programmes moved to BBC Scotland and performed well, much of the viewing of these programmes is likely to be cannibalisation from BBC One to BBC Scotland, and so the impact on commercial rivals would likely be small.

A2.131 As previously mentioned, STV Group noted the risk that the BBC might permanently move popular programmes from BBC One Scotland to BBC Scotland, and that this would allow the BBC to schedule additional popular network programmes in BBC One Scotland.[127] However, unlike BBC Two Scotland, the BBC's proposal does not indicate that the BBC is planning to reduce the amount of Scottish-focussed content on BBC One Scotland.

A2.132 Added to this, if a popular Scottish-focussed programme (e.g. *River City*) were to move from BBC One to BBC Scotland, it could actually make BBC One less attractive to viewers in Scotland. It could be that some existing viewers of that programming on BBC One (e.g. *River City*) might switch to watching say, STV, rather than watch the programming that moves to BBC Scotland or the programming that replaces it on BBC One.

Increase in effective budget available to BBC Scotland

A2.133 STV Group noted that BBC Scotland may have access to more than the c.£20m of extra investment that has been proposed.[128] This may occur as the BBC stretches its BBC Scotland budget through co-commissioning opportunities with other broadcasters.

A2.134 As noted in paragraph A2.68 above, our high case scenario modelled an increase in BBC Scotland's per hour content budget. This results in an uplift of [✂] for Adjustment 4 (budget per hour for BBC Scotland relative to BBC Two Scotland) compared to a downlift of minus [✂] in our base case. The adjustment in our high case scenario reflects the BBC proposals that around 50% of material shown on BBC Scotland will be repeats[129], which will increase the effective budget available for new content. However, our high case scenario also assumed that there would not be a one-to-one relationship between the headline spend for a channel and its likely viewing share, which in part may capture co-commissioning opportunities.[130] Furthermore, as some of the programmes broadcast on BBC Two have themselves been co-commissioned, this effect has already been accounted for to some extent in our analysis (see footnote 58 above).

[127] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[128] STV Group plc's confidential response to Ofcom's "Consultation", page 6.
[129] Non-news content shown from 7pm to midnight.
[130] This is because we estimated an alternative spend-to-viewing factor for BBC spin-off channels, based on their reported headline content budgets. To the extent that these channels benefitted from co-commissioning from the main BBC channels, their channel share would be higher than if they only had the budget of their channel.

A2.135 We consider that we have already applied significant uplifts to the BBC's budget per hour assumptions for BBC Scotland and relied on viewing share information on BBC channels that reflects co-commissioning that occurs on those channels. We do not have evidence that the scope and scale of co-commissioning opportunities for BBC Scotland is significantly beyond that already factored into our modelling.

Audience substitution from existing TV channels as a result of the BBC's proposal

A2.136 In this section, we estimate the likely substitution of viewing from existing TV channels to the proposed BBC Scotland channel given our predictions of take-up for the new channel. We forecast where viewing for the new channel is likely to be drawn from (and where lost viewing for BBC Two and BBC Four is likely to go to) and, hence, which channels are most likely to be affected.

Summary of the approach in the BBC's PIT

A2.137 Frontier CC assumed, in its modelling, that BBC Scotland has no material impact on overall TV viewing.[131] This means that viewing for the new BBC Scotland channel will only be gained at the expense of a loss in viewing on other TV channels. Frontier CC noted this represents an upper bound of the likely impact on viewing of commercial TV channels.

A2.138 To understand the sources of viewing for BBC Scotland, Frontier CC examined the viewing mix of those that watch opts programming on BBC Two Scotland using 2016 BARB viewing data.[132] Specifically, it examined the top-third of viewers (ranked by their opts viewing) to understand what other channels heavy viewers of opts programming like to watch and, hence, may substitute from in order to watch BBC Scotland (see Table A2 11 below). Frontier CC noted that this approach is broadly consistent with that taken by Ofcom in the BBC Three Market Impact Assessment.[133] Frontier CC applied this current viewing mix of heavy opts viewers to BBC Scotland viewing and deducted the relevant volume of viewing from each respective channel group.

[131] Frontier CC report, section 5.1.
[132] Frontier CC report, section 5.3.8.
[133] Ofcom, Proposed changes to BBC Three, BBC iPlayer, BBC One and CBBC, Market Impact Assessment, 30 June 2015, https://www.ofcom.org.uk/__data/assets/pdf_file/0016/68110/market_impact_assessment_report.pdf.

Table A2 11: Frontier CC estimates for the viewing mix of heavy opts viewers and the share of Scottish viewing in 2019[134]

	Viewing mix of heavy opts viewers (%)	Share of Scottish viewing (%)
BBC One	24.44%	22.79%
BBC Two	7.26%	5.95%
BBC Four	1.79%	0.94%
Other BBC	0.73%	2.61%
STV / ITV Border	19.22%	15.28%
City TV / STV2	0.13%	0.10%
Other channels	46.44%	52.34%

Source: Frontier CC analysis of BARB data, heavy-opts viewing mix based on Q1 2017

A2.139 For BBC Two and BBC Four, rather than assessing the particular viewing patterns of heavier BBC Two and BBC Four viewers, Frontier CC made a simplifying assumption and reallocated the channels' lost viewing to other channels in proportion to shares of total Scottish viewing.[135]

Our approach

A2.140 We broadly agree with Frontier CC's approach to estimating the potential audience impacts on commercial TV channels. Heavy BBC Two opts viewers are likely to be among the audiences attracted to the new BBC Scotland channel. Therefore, if we know what other channels these heavy opts viewers also watch, this can give a better indication of which channels viewers of the new channel might give up.

A2.141 Frontier CC's approach, using the current viewing mix of heavy opts viewers, concentrates a higher proportion of the viewing impact on channels such as STV and STV2, than using a viewing mix based on overall TV viewing shares in Scotland.

A2.142 We have updated Frontier CC's analysis by using the viewing mix of heavy BBC Two opts viewers in 2017 (see Table A2 12 below). In addition, in order to capture what else heavy BBC Two opts viewers watch, we excluded from BBC Two any viewing of opts and re-allocated this viewing across channels. We have applied this viewing mix to our take-up estimates for BBC Scotland between 2018 and 2023. We have also reallocated lost viewing

[134] Columns may not add up exactly to 100% due to rounding.
[135] Frontier CC report, section 5.3.8.

from BBC Two and BBC Four to other channels in proportion to Scottish viewing shares. For comparison purposes, we have included projected channel shares of Scottish viewing in 2019 based on our counterfactual scenario.

Table A2 12: Scenario for the substitution of viewing to BBC Scotland in 2019[136]

	Viewing mix of heavy opts viewers fixed at 2017 levels (%)	Predicted share of Scottish viewing in our counterfactual (%)
BBC One	29.53%	22.46%
BBC Two	8.78%	5.85%
BBC Four	1.49%	0.95%
Other BBC	1.58%	1.68%
STV / ITV Border	14.69%	15.09%
City TV / STV2	0.38%	0.21%
Other channels	43.55%	53.76%

Source: Ofcom analysis of BARB data. Individuals 4+, BBC Scotland region.

A2.143 We have considered the potential impact of the BBC's proposal on the viewing shares of the BBC portfolio of channels, the STV Group portfolio of channels and other commercial channels.

A2.144 Specifically, we have assumed that the BBC's proposal does not have any impact on overall TV viewing. This implies that all the extra viewing of BBC Scotland comes from other channels in line with the proportions set out Table A2 12 above. This also implies that the falls in BBC Two and BBC Four's audiences are distributed to other channels in line with Scottish viewing shares. We have done this for our range of take-up estimates from Table A2 9 above and compared the results with our counterfactual scenario (viewing shares fixed at 2017 levels, as described in paragraph A2.29 above) to predict the likely loss of viewing share for FTA and other TV channels. Our predictions for 2019 are set out in Table A2 13 below.

[136] Due to rounding, figures may not add up exactly to 100%.

Table A2 13: Ofcom's revised results: predicted change in viewing share by channel in 2019 based on our counterfactual and substitution scenario (heavy opts viewing mix fixed at 2017 levels)

	Predicted share of Scottish viewing in our counterfactual (%)	Predicted change in viewing share (pp)		
		Low	Base	High
BBC Scotland	N/A	1.87pp	2.42pp	4.13pp
BBC One	22.46%	-0.50pp	-0.66pp	-1.17pp
BBC Two	5.85%	-0.23pp	-0.27pp	-0.42pp
BBC Four	0.95%	-0.18pp	-0.18pp	-0.21pp
Other BBC	1.68%	-0.03pp	-0.03pp	-0.06pp
STV / ITV Border	15.09%	-0.24pp	-0.32pp	-0.57pp
City TV / STV2	0.21%	-0.01pp	-0.01pp	-0.02pp
Other channels	53.76%	-0.69pp	-0.93pp	-1.68pp
Total BBC portfolio channels	30.94%	0.94pp	1.26pp	2.26pp
Total commercial channels	69.06%	-0.94pp	-1.26pp	-2.26pp

Source: Ofcom analysis of BARB data. Individuals 4+, BBC Scotland region.

Comparison of patterns of substitution with consumer survey results

A2.145 As a cross check that the substitution patterns in Table A2 12 above are reasonable, we have compared them against the consumer survey results that we have received.

A2.146 We commissioned a consumer survey to understand potential audience substitution to BBC Scotland, including whether respondents who said they might watch the new channel would watch any other TV channels or services less.[137] Around two in ten (21%) of all adults in Scotland said they would watch any TV channels or services less (rising to 27% of those that would potentially watch the BBC Scotland channel).[138] 18% of all adults in Scotland said they would watch any BBC channel or service less (rising to 22% of potential BBC Scotland viewers), 8% would watch any STV/ITV channel or service less (rising to 10%) and 12% would watch any commercial channel or service less (rising to 15%). Of those potential BBC Scotland viewers that ever watch BBC One, 17% said they would watch BBC One less.[139] The corresponding results for other channels or services are: BBC Two (14%), BBC Four (11%), BBC News (11%), BBC Alba (9%), STV/ITV (9%), STV2 (9%), Channel 4 (9%), Channel 5 (9%), Amazon Prime Video (8%), Netflix (6%), Sky channels (5%) and other TV channels or services (7%).[140]

A2.147 The BBC also commissioned quantitative research from Kantar TNS to explore potential audience substitution to BBC Scotland, including whether viewers would watch specific TV services less if the new channel were launched.[141] The BBC's quantitative research found that BBC channels are most likely to be watched less by those likely to watch the new channel, with BBC1 and BBC2 most affected.[142] Of those likely to watch the new BBC Scotland channel, 15% would watch any BBC channel or service less, compared to 14% for other channels.[143] The corresponding results for BBC channels are BBC One (8%), BBC Two (7%), BBC Four (3%), BBC News (2%), BBC Alba (1%), BBC Three (1%) and BBC iPlayer (1%).

A2.148 STV Group also submitted consumer survey evidence, [✂[144] [145]].[146]

A2.149 As noted in paragraph A2.77 above, given the differences between the three surveys (in terms of methodology, sample and questionnaire design), we have not sought to compare the results relating to potential substitution across the three surveys.

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[137] See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.

[138] BBC Competition Assessment: Scotland research – Chart pack, slides 19-23, Question C1: Do you think you would watch any of these channels or services less if the new BBC channel launched? Base: All adults aged 16+ (n=1,111), All adults aged 16+ who would potentially watch the BBC Scotland channel (coded 2-5 at B1) (n=878).

[139] BBC Competition Assessment: Scotland research – Chart pack, slides 22-23, Question C1: Do you think you would watch any of these channels or services less if the new BBC channel launched? Base: All adults aged 16+ who ever watch the TV channel/ service in question and are potential BBC Scotland viewers (BBC One n=840, BBC Two n=707, BBC Three n=282, BBC Four n=385, BBC News channel n=508, BBC ALBA n=268, BBC iPlayer n=458, STV/ ITV n= 819, STV2 n=367, STV Player n=311, ITV Hub n=245, Channel 4 n= 754, All 4 n=260, Channel 5 n=655, My 5 n=162, Sky channels n=449, Netflix n=345, Amazon Prime Video n=139, Other TV channels or services n=317).

[140] BBC iPlayer (5%), STV Player (5%), ITV Hub (3%), All 4 (6%), My 5 (6%).

[141] Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 22.

[142] Q.11 Do you think you would watch any of the following TV channels or services less often if this new channel was launched? Please say all that apply? Base: All who are likely to watch the new channel (549).

[143] "Other channels" includes: any STV/ITV, any Channel 4, any Channel 5, any Sky, Netflix and Amazon Instant Video.

[144] [✂]

[145] [✂]

[146] [✂]

A2.150 In interpreting these survey results, a degree of caution is necessary. Responses to hypothetical questions that ask respondents to provide their reactions to a service that does not yet exist will necessarily be speculative and may not reflect their actual behaviour once faced with the reality of the service. In addition, these surveys did not ask respondents by how much they would reduce their viewing of particular channels, which would have helped weight the impact on each channel.

A2.151 We consider that the relevant measure for assessing levels of substitution away from a given channel to the new BBC Scotland channel is to use a base of respondents that currently watch that channel regularly and would potentially watch BBC Scotland, and to identify the percentage of those respondents that would watch that channel less. We have compared the pattern of substitution based on heavy BBC Two opts viewing with the pattern of substitution implied by our consumer survey results only (rather than also comparing with the results of the surveys commissioned by the BBC and STV Group) because the base of those who would potentially watch the new channel is not comparable across the three surveys.[147]

A2.152 Our consumer survey asked those that would potentially watch the BBC Scotland channel and that currently watch particular TV channels or services at least once a week, whether they would watch any less of those particular TV channels or services that they currently watch.[148] Table A2 14 below compares our consumer survey results for the main channels (column one) against our base case (based on heavy BBC Two opts viewing in 2017 – column four) and the shares of Scottish viewing for each channel (column two).

[147] Ofcom survey: Base of those who think they would watch the new BBC Scotland channel includes respondents who score 2-5 out of 5 when asked 'On a scale of one to five, how likely do you think you would be to watch the new BBC Scotland channel? Where 1 means you would definitely not watch and 5 means you would definitely watch it'. BBC survey: Base of those who think they would watch the new BBC Scotland channel includes respondents who score 3-5 out of 5 when asked to rank on a scale of one to five 'How likely would you be to watch this channel regularly', where 1 means very unlikely and 5 means very likely. [✂]

[148] BBC Competition Assessment: Scotland research – Chart pack, slides 9-10, 13, 16 and 19-23. Base derived from the following questions: Question A5: How often, if ever, do you watch any of the following TV channels or services – using a TV set, a computer or tablet, or a mobile phone? Base: All adults aged 16+ (n=1,111). Question B1: On a scale of one to five, how likely do you think you would be to watch the new BBC Scotland channel? Base: All adults aged 16+ (n=1,111). Question C1: Do you think you would watch any of these channels or services less if the new BBC channel launched? Base: All adults aged 16+ (n=1,111), All adults aged 16+ who would potentially watch the BBC Scotland channel (coded 2-5 at Question B1) (n=878).

Table A2 14: Ofcom's Consultation results: scenarios for the substitution of viewing to BBC Scotland in 2019[149]

	Viewing mix based on consumer survey results (%) *(column one)*	Predicted share of Scottish viewing in 2019 (%) *(column two)*	Adjusted Consumer survey results - i.e. weighted by Scottish viewing shares (%) *(column three)*	Viewing mix of heavy opts viewers fixed at 2017 levels (%) *(column four)*
BBC One	18%	22%	32%	30%
BBC Two	19%	6%	9%	9%
BBC Four	21%	1%	2%	1%
Other BBC	11%	2%	2%	2%
STV / ITV Border	10%	15%	12%	15%
City TV / STV2	14%	0.2%	0.2%	0.4%
Other channels	10%	53%	44%	44%

Source: BBC Competition Assessment: Scotland research – Chart pack (column one);[150] BARB data (BBC Scotland region) (column two); Ofcom analysis using BARB data (columns three and four).

A2.153 Below we compare the sources of viewing substitution to the new BBC Scotland channel based on our (adjusted) consumer survey results (column three) versus 2017 heavy opts viewing results (column four).

A2.154 The results from our consumer survey (column one) only show the percentage of respondents that said they would reduce their existing viewing of a particular channel to (potentially) watch BBC Scotland. But if around 18% of people watch less of BBC One and 21% less of BBC Four, we would generally expect a larger proportion of viewing to be drawn from BBC One than BBC Four, due to the greater share of viewing of BBC One (22%)

[149] Due to rounding, figures may not add up exactly to 100%.
[150] BBC Competition Assessment: Scotland research – Chart pack, slides 9-10, 13, 16 and 19-23. Base for each channel is those that watch that channel at least once a week and those who think they would watch the new BBC Scotland channel , derived from Questions A5, B1 and C1 – see footnote 148. Survey results for "Other BBC" includes viewing via iPlayer and BBC Alba viewing. "Other channels" includes Sky channels and viewing via catch-up services but not Netflix or Amazon.

relative to BBC Four (1%). The adjusted consumer survey results (column three) take this into account by weighting the consumer survey results for each channel (column one) by that channel's viewing share (column two).[151] We then calculated an implied share for each channel based on these weighted values (column three).

A2.155 The adjusted results of our consumer survey are broadly similar overall to the viewing mix of heavy BBC Two opts viewers in 2017. The adjusted consumer survey results suggest a higher proportion of BBC Scotland viewers would be likely to come from BBC channels (e.g. these results suggest that BBC One would be likely to account for 32% of BBC Scotland viewing compared to 30% based on heavy opts viewing). The adjusted consumer survey results suggest ITV/STV and STV2 would account for a smaller proportion of BBC Scotland viewing (12% and 0.2% respectively) compared to results based on heavy opts viewing (15% and 0.4% respectively). Therefore, our adjusted consumer survey results are broadly consistent with the heavy opts viewing when ranking the most affected channels and their potential loss of audience to BBC Scotland.

The potential for overall TV viewing to expand

A2.156 Our modelling above assumes that the BBC's proposal does not change overall TV viewing. As a result, any change in the audience for one channel is associated with an equal and opposite shift in other channels' viewing.

A2.157 Our consumer survey results suggest that around six in ten (62%) respondents that would potentially watch the new BBC Scotland channel said they would do so in addition to their existing viewing.[152] Fewer, 24%, thought that they would watch the new channel instead of their existing viewing and 14% did not know.[153] Taken at face-value, these results suggest that, as overall TV viewing would increase as a result of the new channel, at least some of the additional BBC Scotland viewing would not be at the expense of other channels' viewing.

A2.158 However, as noted in paragraph A2.78 above, we need to be cautious about relying on consumer survey results, particularly responses to hypothetical questions as respondents are required to speculate about how they might react to the launch of a service that does not currently exist. We therefore have not placed significant weight on this aspect of the consumer survey results and have assumed that take-up of the new BBC Scotland channel

[151] In presenting this adjustment we are making an implicit assumption that viewers would give up a similar proportion of the time they spend with each channel (e.g. if 30% of viewers of BBC One and STV2 said that they would watch less, we assume that they might watch each channel an equivalent amount less (i.e. x% less of each channel)). This assumption is consistent with how we use the viewing mix of heavy opts viewers to determine likely substitution (i.e. we assume that BBC One would account for 29.53% of take-up of BBC Scotland in proportion to its share of heavy opts viewing).
[152] BBC Competition Assessment: Scotland research – Chart pack, slides 24-25, Question C2: Do you think you would you watch BBC Scotland in addition to or instead of your existing television viewing? Base: All adults aged 16+ who would potentially watch the BBC Scotland channel (coded 2-5 at Question B1) (n=878).
[153] STV Group submitted consumer survey evidence, [✂].

is at the expense of the viewing of other channels (i.e. the BBC's and other commercial channels). Frontier CC adopted a similar "conservative" approach in its assessment of the impact on commercial broadcasters, and argued that its estimates of substitution represent an upper bound of the likely impact on these broadcasters.[154]

Viewing impact on BBC Alba

A2.159 We have also considered the potential viewing impact on BBC Alba. As noted above, Frontier CC's modelling did not include any estimate of the quantitative impact on BBC Alba. This is because BARB does not report viewing data for BBC Alba. However the MG ALBA and BBC annual reports for 2016/17 include some data on BBC Alba's viewing in 2016/17 based on their own research: BBC Alba achieved an average weekly reach of 13.20% of the Scotland population and 67.20% of the Gaelic-speaking population in Scotland; and the average BBC Alba viewer watched BBC Alba 1 hour and 55 minutes per week, while Gaelic-speaking audiences watched it for 5 hours and 23 minutes per week.[155]

A2.160 We can use these data points to estimate, approximately, total annual viewing hours for BBC Alba c.64 million, and viewing share 0.91% (based on total Scottish viewing hours of 6,983 million in 2016 according to BARB, to which we add our estimate of BBC Alba's viewing hours). We estimate that the Gaelic-speaking population may account for less than one fifth of viewing of BBC Alba.[156]

A2.161 Under one scenario, we could assume that 0.91% of BBC Scotland viewing hours are drawn from BBC Alba (i.e. in line with overall viewing shares in Scotland), which would equate to BBC Alba losing 1.5 million viewing hours, which would be 2.3% of its viewing hours in 2016 under our base case. Using low and high take-up scenarios for BBC Scotland, we estimate a range of 1.8% to 3.9%. This range represents our best approximation of the impact on

[154] Frontier CC report, page 47.

[155] MG ALBA, Annual Report and Statement of Accounts 2016-17, pages 26 and 31, http://www.mgalba.com/downloads/reports/annual-report-16-17.pdf; and BBC, Annual Report and Accounts 2016/17, page 41, https://downloads.bbc.co.uk/aboutthebbc/insidethebbc/reports/pdf/bbc-annualreport-201617.pdf. Our calculations also used BARB estimates of the average weekly universe of Scottish viewers in the BBC Scotland region in 2016 of 4.87 million (individuals 4+ and adults 16+).

[156] To calculate the proportion of viewing by Gaelic speakers, we used 2011 census data on the number of fluent Gaelic speakers (57,600) to derive the universe of Gaelic-speaking viewers. MG ALBA's 2016/17 annual report also estimated that BBC Alba reached 67% of Gaelic speakers, with each viewer watching 5.23 hours per week. http://www.scotlandscensus.gov.uk/documents/analytical_reports/Report_part_2.pdf

BBC Alba given the available data, although we recognise that it may under- or over-estimate the scale of substitution away from BBC Alba:[157,158,159]

- On the one hand, this scenario may underestimate the likely level of substitution from BBC Alba to BBC Scotland. Both channels may particularly appeal to those interested in Scottish content.[160]
- Alternatively, while most Gaelic speakers could watch BBC Scotland in the English language, they might be 'stickier' or more loyal to BBC Alba (i.e. even after the launch of BBC Scotland they remain with BBC Alba) given the lack of alternative Gaelic-language channels. This may somewhat reduce the level of substitution from BBC Alba to BBC Scotland (with any substitution mainly from the non-Gaelic speakers that watch BBC Alba). Based on available data, we estimate that less than one fifth of current BBC Alba viewing could be from the fluent Gaelic speaking population. There could also be others that may wish to continue to watch the channel to improve their Gaelic language.

Stakeholders views in response to our Consultation

A2.162 MG ALBA considered that the *"forecasts made my Ofcom as to the impact of the new BBC Scotland on BBC ALBA must be treated with caution"*, noting that the *"potential audience substitution between the two channels is subject to significant caveats"*.[161]

A2.163 [✂[162]]

Our final views

A2.164 We have considered stakeholders' comments. MG ALBA commented on the uncertainty surrounding any estimates of take-up and substitution. Another stakeholder suggested

[157] Our consumer survey suggests that, of those who would potentially watch the new BBC Scotland channel and who ever watch BBC Alba, 9% think they would watch BBC Alba less as a result of the new channel. This compares to 76% who would not watch BBC Alba any less and 15% who don't know. See BBC Competition Assessment: Scotland research – Chart pack, slides 19-23, Question C1: Do you think you would watch any of these channels or services less if the new BBC channel launched? Base: All adults aged 16+ who ever watch the TV channel/ service in question and are potential BBC Scotland viewers (BBC ALBA n=268).

[158] The BBC's quantitative research found that, of those respondents that said they would be likely to watch the new BBC Scotland channel, 1% said they think they would watch BBC Alba less. Q.11 Do you think you would watch any of the following TV channels or services less often if this new channel was launched? Please say all that apply. Base: All who are likely to watch the new channel (549). See Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 22.

[159] STV Group also submitted consumer survey evidence on potential audience substitution to BBC Scotland, [✂].

[160] This appears to be true for STV2, as its overall viewing share (0.21%) in 2017 was lower than its share of viewing of heavy BBC Two opts viewers (0.38%).

[161] MG ALBA response to Ofcom's "Consultation", pages 2-3.

[162] [✂]

that BBC Two opts programming was an imperfect comparator for the type of content that will be shown on BBC Scotland (e.g. news programming).

A2.165 We recognise that it is not possible to estimate take-up and substitution precisely. However, our modelling was based on the actual viewing habits of heavy BBC Two opts viewers, who are among those likely to watch content on BBC Scotland. We consider that this is the best available evidence. In particular:

- Simply relying on existing television channels' viewing shares to predict which channels would be affected does not capture how close/distant a substitute those channels are for BBC Scotland.
- We also considered the potential for audience substitution based on the evidence from our consumer survey (see Table A2 14 above). As noted above, a degree of caution is necessary when interpreting the results of consumer surveys.[163] In particular, as also noted above, we do not consider that the raw (unadjusted) results of our consumer survey (i.e. the proportion of respondents that said they would reduce their existing viewing of a particular channel to potentially watch BBC Scotland) should be used as implied substitution rates for particular channels.[164] Nevertheless, we found that our (adjusted) consumer survey results are broadly consistent with the heavy opts viewing when ranking the most affected channels and their potential loss of audience to BBC Scotland (given our take-up assumptions).

A2.166 [✂] However, having considered the results of our consumer survey in relation to potential substitution of consumers, including those that use STV/ITV channels as a news source, we do not think that they suggest we should change our approach.

A2.167 In particular, we asked respondents that use STV/ITV TV channels as a news source and are potential viewers of BBC Scotland whether they would watch STV/ITV news any

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[163] As noted above, the consumer survey results are based on potential BBC Scotland viewers (those respondents that scored 2-5 in terms of stated likelihood of watching), which may overstate the extent to which they will actually watch the new channel. Furthermore, those that stated they would watch other channels less may not give up their viewing of these other channels entirely, they may just watch them less. Hence, if 10% of viewers said they would watch less of STV as a result of stated interest in the new channel, this would not necessarily translate into a 10% loss in STV's current viewing share.

[164] Indeed, if we did treat the proportion of viewers that said they would watch less of particular channels as potential rates of substitution, it would result in implausible take-up assumptions for the new channel. For example, based on Table A2 14 (column one) above, 18% of the base of respondents who were regular BBC One viewers and interested in the BBC Scotland channel said they were likely to watch BBC One less due to the new channel. Given BBC One's viewing share of 22%, if we assumed that 18% of regular BBC One viewers who are potential BBC Scotland viewers would substitute their viewing to BBC Scotland, the new channel would gain a 4 percentage points of viewing share from BBC One viewers alone. In addition, if we use our consumer survey results across all channels (weighted by each channel's viewing share), this would imply a 12.6% viewing share for BBC Scotland. This market share appears implausible given the budget and EPG position of the new channel and compared against other channel benchmarks (e.g. it is more than double BBC Two's viewing share in Scotland).

less.[165] Our consumer survey results suggested that 15% of those that use STV/ITV TV channels as a news source and are potential viewers of BBC Scotland's 9pm news programme said they think they would reduce their viewing of STV/ITV news. This is a higher propensity to reduce viewing than regular STV/ITV viewers that would potentially watch the new channel, of whom 10% said they would reduce their viewing.[166]

A2.168 According to 2017 BARB data on the viewing of different genres on STV, we observe that news and weather (covering international, UK and Scottish news) accounted for 12% of viewing minutes per person – within this, Scottish news accounted for 5% of viewing minutes per person.[167] Hence, even if STV/ITV news viewers had a higher stated propensity than regular STV/ITV viewers to reduce their viewing as a result of the new BBC Scotland channel (as suggested by our consumer survey results), the proportion of viewing of the new channel drawn from STV overall would still be some way below the assumption we made based on heavy opts viewing (15%). This is based on the approach used in Table A2 14 above to adjust our consumer survey results[168], and uplifting STV's share to account for the (stated) higher propensity of STV/ITV viewers to potentially watch less news due to BBC Scotland.[169]

A2.169 In light of the above discussion, we consider that it remains appropriate to base the substitution of viewing to BBC Scotland in 2019 on the viewing mix of heavy opts viewers, as set out in Table A2 14 above.

A2.170 As noted in our final views on take-up of the new BBC Scotland channel, we consider there is considerable uncertainty around likely take-up of the new channel and we attach very low probability to the upper bound of our predicted ranges for changes in viewing share of

[165] BBC Competition Assessment: Scotland research – Chart pack, slide 38, Question D6: You said you would watch the 9pm weekday news on BBC Scotland. Do you think you would consume less news as a result on any of the following?

[166] See Table A2 14 above, based on regular STV/ITV viewers (i.e. who watch STV/ITV at least once a week) who said they were potential viewers of BBC Scotland and said that they would watch STV/ITV less.

[167] Proportions as a percentage of viewing by genre across STV SD+HD in the BBC Scotland BARB region. Note: 'Other: teleshopping' and 'Other: non-programme material' genre categories which fill the STV overnight schedules have been excluded from the analysis.

[168] As explained in paragraphs A2.145 to A2.155 above, the consumer survey results show the percentage of respondents that said they would reduce their existing viewing of a particular channel to (potentially) watch BBC Scotland. But in order to assess the proportion of viewers of BBC Scotland that would likely be drawn from different channels, we need to adjust our consumer survey results. This is necessary because, if respondents said they would watch two channels less by a similar amount (say, 10% of viewers of each channel), and one of those channels had a much higher viewing share (e.g. BBC One (22%) relative to BBC Four (1%)), then we would expect a larger proportion of viewing of BBC Scotland to come from viewing of BBC One than BBC Four. We therefore adjust our consumer survey results to take this into account by weighting the consumer survey results by that channel's viewing share. Applying these adjustments in Table A2 14 above for STV/ITV, we calculated that viewers switching from STV/ITV would account for 12% of viewing of BBC Scotland.

[169] 15% of STV/ITV news viewers that are likely to watch BBC Scotland's 9pm news programme said they would watch less STV/ITV news and 10% of regular STV/ITV viewers that are likely to watch BBC Scotland said they would watch STV/ITV less. We have weighted these implied 'reduced viewing rates' by their share of STV/ITV viewing (i.e. 12% of STV viewing minutes per person accounted for by news and weather, and 88% of STV viewing minutes per person accounted for by other genres) to produce a weighted average. The resulting weighted average 'reduced viewing rate' for STV would be only slightly higher (10.6%) than the rate implied by our consumer survey results for regular STV/ITV viewers (10%). Once we apply adjustments to these results (as applied in Table A2 14 above), STV viewers switching to watching BBC Scotland would account for 12.6% of BBC Scotland viewing, which is still less than if we used STV's share of heavy opts viewing (15% – see Table A2 15 (column four)).

other channels resulting from BBC Scotland. Overall, we estimate in our base case that commercial channels could lose 1.3pp of viewing share if the new channel is launched (relative to a situation where the BBC's proposal does not go ahead), with STV seeing the largest potential impact (a viewing share loss of 0.3pp).

A2.171 We note that these estimates rely on our modelling assumption that all viewing of the new channel comes from viewers in Scotland giving up their viewing of other television channels (i.e. BBC Scotland does not gain viewers due a growth in overall TV viewing and/or due to those viewers giving up their use of other media). If this were not the case, then the loss of viewing share for individual channels could be smaller than we have estimated.

Impact of the BBC Scotland channel on subscriptions to pay TV and SVoD services

A2.172 In the previous section, we estimated the impact of the new BBC Scotland channel on the viewing of all commercial TV channels taken together, which includes pay TV channels. In this section, we consider the potential impact of the BBC Scotland channel on subscriptions to pay TV and SVoD providers, which are more distant competitors than commercial FTA channels.

Summary of the approach in the BBC's PIT

A2.173 Frontier CC noted that the BBC Scotland channel is unlikely to have any material impact on pay TV or SVoD retailers.[170] Frontier CC did not estimate the potential impact on the viewing shares of individual pay TV or SVoD retailers. Instead, it qualitatively assessed the likely impacts using evidence from the BBC's quantitative research.

A2.174 Frontier CC noted that pay TV retailers offer access to a wide variety of content across TV platforms, whereas the new BBC Scotland channel will offer content aimed specifically at viewers in Scotland. Similarly, Frontier CC noted that consumers subscribe to SVoD services to access a range of TV and film content, or content that is exclusive to the provider. Frontier CC suggested that the significant differences in the characteristics of these services and the content offered makes them unlikely substitutes for the new channel.[171]

A2.175 This is also consistent with the results from the BBC's quantitative research.[172] Amongst potential BBC Scotland viewers, only [✂] stated that they may watch Sky channels less often and only [✂] (respectively [✂]) stated that they may watch less Netflix (respectively Amazon) content.[173] To estimate the potential loss in Scottish subscriptions, Frontier CC

[170] Frontier CC report, section 7.
[171] Frontier CC report, section 7.1.
[172] Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 22.
[173] Frontier CC report, section 7.3.

assumed that 10% of these subscribers that may watch these services less would be willing to cancel their pay TV or SVoD services as a result of the BBC's proposal. According to Frontier CC, this would imply that 0.3% of Scottish pay TV viewers (and only 0.03% of UK pay TV households) and less than 0.2% of Scottish SVoD subscribers (and 0.01% of UK SVoD subscribers) would consider changing or cancelling their subscriptions if BBC Scotland launched.

Our approach

A2.176 We agreed with Frontier CC's assessment of the likely impact on pay TV and SVoD services and note that we received no concerns from stakeholders in relation to the potential substitution impact. In light of this, we have not explicitly modelled the viewing impact on pay TV and SVoD services. Nevertheless, we have looked into the potential substitution effects using evidence from our consumer research.

A2.177 Our consumer survey suggests that the potential impact on pay TV and SVoD subscriptions is likely to be negligible.[174] Only 6% of Netflix users, who would potentially watch the new BBC Scotland channel, say they would watch less of Netflix, and a similar proportion of Amazon Prime Video users, who would potentially watch the new BBC Scotland channel, say they would watch less of Amazon Prime Video (8%).[175] Likewise, only 5% of Sky TV viewers, who would potentially watch the new BBC Scotland channel, would watch less of Sky TV. In total, 7% of those that watch any pay TV and/or SVoD (this includes Amazon, Netflix and Sky only), would watch any of these services less. The potential impact on pay TV and SVoD services is smaller than the potential impact on PSB TV channels or services – 26% of potential viewers of the new BBC Scotland channel, who watch any PSB channels or services,[176] say they would watch less if the new channel launched.[177] The difference in magnitude of those that would watch less of pay TV and/or SVoD and those that would watch less of PSB also supports our view that these are dissimilar services.

A2.178 Also, for SVoD and pay TV services, consumers would only be likely to cancel a subscription: (a) if they watched a considerable amount of content on the new channel; (b) this was at the expense of SVoD and pay TV; and (c) the amount of time they gave up watching SVoD and pay TV was so material that it was not worth their while continuing to subscribe to those services. Our estimates of take-up suggest that neither (a) nor (b) are likely to be the case. Even if there were more significant substitution of viewing towards the new channel, this is unlikely to reduce the attractiveness of SVoD and pay TV

[174] See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.
[175] See BBC Competition Assessment: Scotland research – Chart pack, slide 23, Question C1: Do you think you would watch any of these channels or services less if the new BBC channel launched? Base: All adults aged 16+ who ever watch the TV channel/ service in question and are potential BBC Scotland viewers (Channel 4 n=754, All 4 n=260, Channel 5 n=655, My 5 n=162, Sky channels n=449, Netflix n=345, Amazon Prime Video n=139, Other TV channels or services n=317).
[176] We have looked at PSBs only here, as a proxy for free-to-air channels, because the 'other channels' category in the research may include paid-for channels. Results include linear viewing and viewing via catch-up services.
[177] See BBC Competition Assessment: Scotland research – Data tables.

subscriptions, which provide access to a wide range of content. Our view is that, while the new BBC Scotland channel may lead to a small decline in viewing and viewing share of pay TV channels and SVoD services, we consider this is unlikely to result in a material impact on subscriptions to pay TV and SVoD services.

Our final views

A2.179 We received no stakeholder comments or evidence in relation to the impact on pay TV and SVoD services. Our view remains that, while the new BBC Scotland channel may lead to a small decline in viewing and viewing share of pay TV channels and SVoD services, we consider this is unlikely to result in a material impact on subscriptions to pay TV and SVoD services.