BBC Scotland Competition Assessment

Consultation Annex 2: Channel Take-up and Substitution

CONSULTATION ANNEX:

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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.

Our overall approach

A2.4 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).

A2.5 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.

A2.6 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

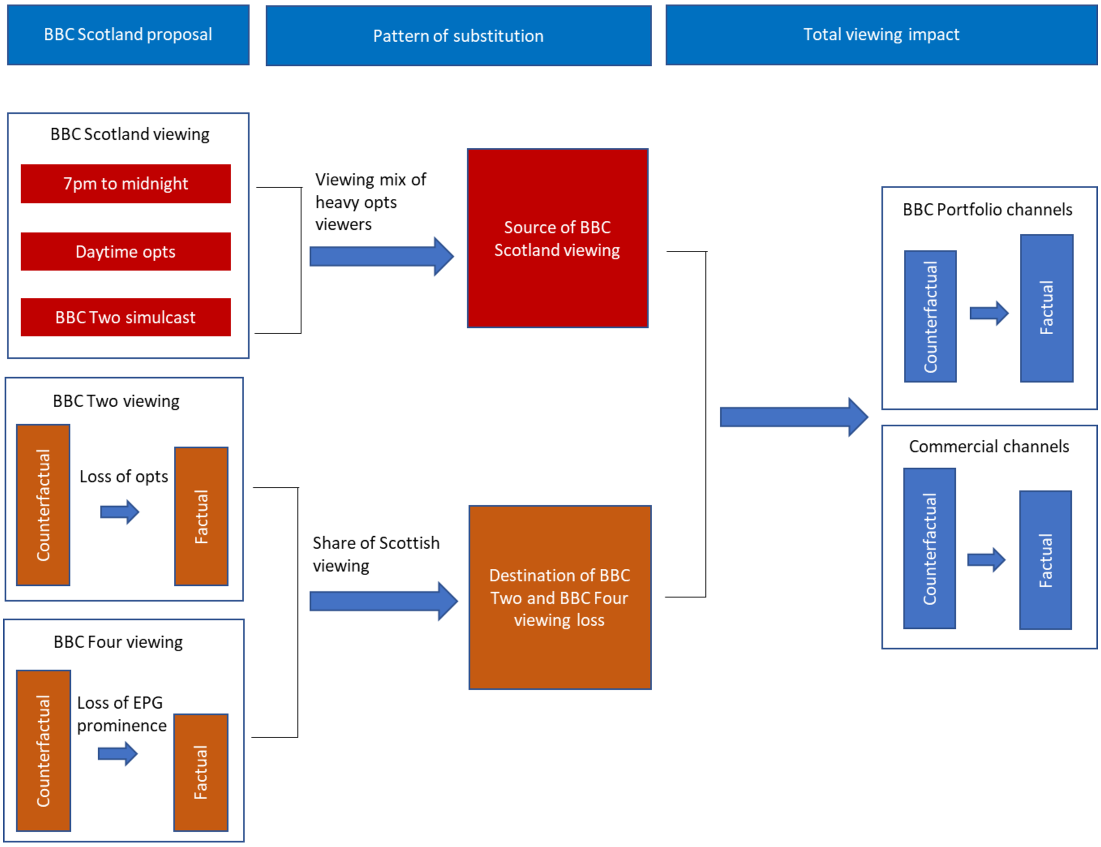
[1] In this Annex, references to audience take-up, viewing hours, viewing shares and substitution relate to viewing in Scotland rather than across the UK, unless otherwise specified. References to viewing share or changes in viewing are based on total viewing hours in Scotland (again unless specified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

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 BBC portfolio and commercial channels relative to the counterfactual without the BBC Scotland proposal.

Figure A2 1: Our model structure



Source: Ofcom

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

A2.7 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

[4] Changes to CBBC HD on the Freeview platform (as discussed in paragraph A2.9 below) are *de minimis*, so we did not include them in our model.
[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

commissioned by the BBC[7] and STV Group[8]. For reasons we discuss in paragraph A2.75, we have tended to place more weight on actual viewing data rather than consumer survey results.

A2.8 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]

A2.9 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 (e.g. River City) now shown on BBC Scotland.
- *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]

A2.10 As our assessment is forward-looking, we have made projections of likely viewing in the future. For simplicity, we have presented 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. We recognise that BBC Scotland may take longer to reach a 'steady state' (i.e. where it has largely exhausted its

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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.

[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).

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

A2.11 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

A2.12 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 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.

A2.13 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.

A2.14 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.

A2.15 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

[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.

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]

Forecast of TV viewing absent the BBC's proposal

A2.16 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.

A2.17 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.

Summary of the approach in the BBC's PIT and stakeholder views

A2.18 Frontier CC projected viewing hours in both Scotland and the UK for the following channels: BBC One, BBC Two, BBC Four, other BBC portfolio channels combined, ITV (which broadcasts some Scottish content in its Border region),[15] STV, STV2 (and its predecessor City TV) and all "other" channels combined from 2017 to 2023.[16] Its projections capture total linear TV viewing (i.e. live viewing and seven-day recorded and catch-up viewing on TV).[17]

A2.19 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")).[18] 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%).[19] As BARB data is not available for the Gaelic-language channel BBC Alba, Frontier CC did not include this channel in its main model.

A2.20 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).[20]

[14] Ofcom, BBC Scotland Competition Assessment, Consultation Annex 3.
[15] In this Annex, references to "ITV Border" relate to ITV Border (Scotland), which is the Scottish sub-region of the ITV Border region.
[16] Frontier CC report, page 30.
[17] This includes live broadcast viewing on TV, as well as viewing on TV up to seven days after broadcast via personal video recorders (PVR) and catch-up player services (e.g. BBC iPlayer, STV Player).
[18] Frontier CC report, page 32.
[19] Frontier CC report, page 31.
[20] 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.

A2.21 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).

A2.22 We received no comments from stakeholders about the BBC's approach to projecting TV viewing in the counterfactual.

Our approach

A2.23 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.[21] 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 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.

A2.24 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.

A2.25 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.[22]

A2.26 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.

[21] Data includes both viewing for the SD and HD variant of channels where available.

[22] 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.

Table A2 1: Projected viewing shares in 2019 under the counterfactual scenario[23]

	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).

A2.27 We have also included another counterfactual scenario in our model to adjust for how STV2 may grow over time and the impact this may have on the viewing shares of other channels. This is because STV2 only launched in April 2017 after STV rebranded its local TV network service (City TV) and expanded its transmission area in Scotland[24]. City TV's share of viewing in 2016 was 0.09%, while STV2 achieved a viewing share since launch of 0.17% in 2017. STV2 is unlikely to have yet reached its full potential and may grow over time to achieve a higher viewing share when compared to 2016 and 2017. Therefore, we have included a counterfactual scenario where STV2's share of viewing increases. Under this scenario, we forecast that STV2 will capture a viewing share of [✂] in 2019 at the expense of other channels who will lose viewing in proportion to 2017 shares.[25]

Take-up of BBC Scotland

A2.28 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

[23] 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.
[24] City TV comprised the STV Glasgow and Edinburgh licences combined. From 24 April 2017, these two services were combined with the STV licences for Dundee, Aberdeen and Ayr, and rebranded and relaunched as STV2.
[25] We have attempted to reflect the potential for continued growth in STV2's viewing share by comparing the year-on-year growth in commercial impacts and viewing shares for City TV/STV2 to derive an estimate for the viewing share per commercial impact. We have then applied this estimate to forecasts of STV2's commercial impacts between 2018 to 2020 to derive an alternative counterfactual. Source: Information provided by STV Group plc as part of its confidential response to Ofcom's Information Request dated 9 February 2018.

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

A2.29 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.[26] 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.

A2.30 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)

A2.31 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.[27] It estimated this adjustment factor based on how opts currently shown perform on BBC Two in Scotland.

A2.32 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.

A2.33 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 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).[28] This percentage point difference in proportionate terms is equivalent to a

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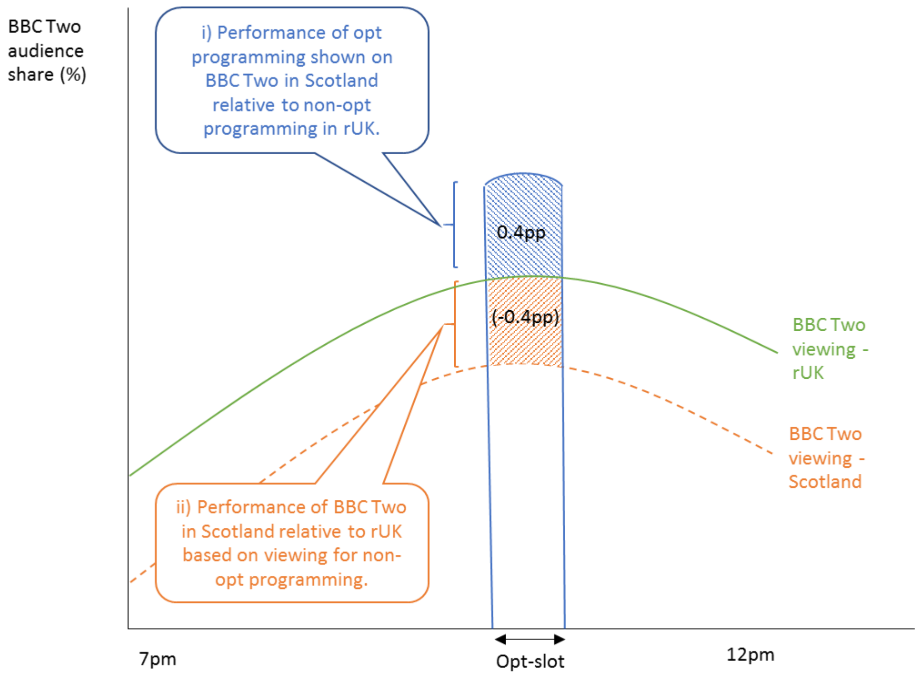
[26] Frontier CC report, sections 5.2 and 5.3.

[27] Frontier CC report, section 5.3.1.

[28] 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

13.7% difference.[29] 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

A2.34 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.

Adjustment 2: More competitive environment in peak times

A2.35 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.[30] 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.

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.

[29] 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%].

[30] Frontier CC report, section 5.3.2.

A2.36 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.[31] 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

A2.37 Frontier CC applied a downlift to account for the lower EPG position of BBC Scotland relative to BBC Two Scotland.[32] 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.[33] 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.

Adjustment 4: Budget per hour

A2.38 Frontier CC estimated a budget per hour of [✂] for BBC Two Scotland and £17,300 for the proposed new channel, a difference of minus [✂].[34] 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

A2.39 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

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[31] 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.

[32] Frontier CC report, section 5.3.3.

[33] 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.

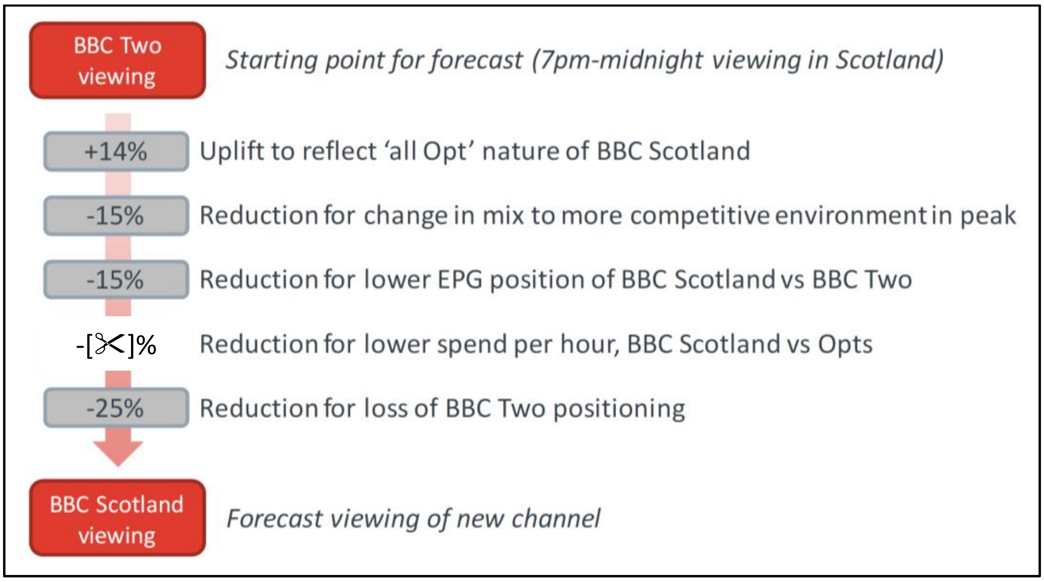
[34] Frontier CC report, section 5.3.4.

programming and lead-in for programming at 7pm.[35] 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

A2.40 Frontier CC took the combination of the above adjustments to estimate an overall adjustment of minus [✂].[36] 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).[37]

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



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

Daytime schedule

A2.41 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.

A2.42 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.[38]

A2.43 Frontier CC modelled the inclusion of daytime schedules on BBC Scotland.[39] It assumed an additional 140 hours of daytime opts programming on BBC Scotland and considered

[35] Frontier CC report, section 5.3.5.
[36] Frontier CC report, section 5.3.6 and Frontier model.
[37] 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).
[38] BBC PIT, Box 4.
[39] Frontier CC report, section 5.4.3.

scenarios for what may fill the schedule gaps (e.g. "barker" material or a BBC Two simulcast).

A2.44 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 (i.e. BBC Scotland on air only from 7pm to midnight), which amounts to a total increase of 0.11pp.[40]

Sensitivity analyses

A2.45 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).[41] 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%)		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).

[40] 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.

[41] Frontier CC report, section 5.4.4.

Stakeholder views

A2.46 We received no comments from stakeholders about Frontier CC's use of opts viewing hours of BBC Two Scotland as its starting point for deriving the take-up of BBC Scotland or the subsequent adjustments it has made.

A2.47 However, STV Group plc expressed concerns about how programmes would migrate from the BBC network to BBC Scotland and the resulting implications for viewing.[42] It expressed concerns about future changes in the genre mix of BBC Scotland, and whether the BBC could favour content that is potentially more attractive (e.g. domestic sports) and, hence, has a higher impact on commercial providers over time. Finally, it also suggested it was keen to understand the sensitivity of Frontier CC's modelling results to scenarios where BBC Scotland does not swap EPG positions with BBC Four on Digital Terrestrial Television (DTT) and is therefore not as prominently listed.[43]

Our approach

A2.48 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 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.

A2.49 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.[44] 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.

A2.50 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

[42] STV Group plc response to Ofcom's "Invitation to Comment", page 2.
[43] STV Group plc response to Ofcom's "Invitation to Comment", page 3.
[44] BBC PIT, paragraphs 92-93.

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.

A2.51 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,[45] which we apply as an uplift only to the average difference in opts relative to rUK.[46]

A2.52 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).

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[45] The 5.0% figure is based 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.

[46] 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.

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) (unadjusted)	Opts benefit (pp) (including HD uplift)
	Opts (unadjusted)	Opts (uplifted)	Non-opts		
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.*

A2.53 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).

A2.54 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

A2.55 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.

A2.56 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.

A2.57 We have estimated the impact on BBC Two's viewing from the loss of opts[47] (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.[48]

A2.58 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 opt-like content from 7pm-midnight.

A2.59 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.[49]

A2.60 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.[50] In light of the above, we have chosen not to apply Frontier CC's Adjustment 2 downlift of -14.5%.

A2.61 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.

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[47] 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.

[48] 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.

[49] 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.

[50] 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.

A2.62 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.[51] 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,[52] meaning that Adjustment 4 may overstate the impact of BBC Scotland's lower budget per hour.

A2.63 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.[53] For example, in a commissioning brief for the new channel published by the BBC in December 2017[54], 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 scope for the new channel to attract more viewing than would be implied by its budget per hour.[55]

A2.64 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.

A2.65 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').[56]

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[51] 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

[52] 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.

[53] 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.

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

[55] 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.

[56] 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-

- 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.[57] 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 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.[58] Again, we have considered a spend-to-viewing factor of 70% which overall translates to a positive uplift of [✂].[59]

A2.66 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).

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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.

[57] 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.

[58] 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 total proposed broadcast hours for new content amounts to 913 hours per year (£31.6m/913 = £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.

[59] 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 [✂].

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).*

A2.67 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.[60] Hence, the new channel may still benefit from the potential hammocking effects and lead-in programming at 7pm.[61] 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, [✂].[62] In light of the above, we have estimated the take-up of BBC Scotland excluding this adjustment.

A2.68 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

[60] 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.

[61] 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.

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

variant. We consider that Frontier CC's assumptions are appropriate across both the SD and HD channels[63] for each platform (i.e. Sky and Freesat[64], Freeview/Youview and Virgin[65]). Therefore, we have used the same assumptions for our base case.

A2.69 As these plans are yet to be confirmed, and also in light of STV Group plc's comment, we have undertaken sensitivity analysis.[66] 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.

[63] 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).

[64] 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).

[65] 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.

[66] 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.

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%

A2.70 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.[67] 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.

A2.71 In our consumer survey,[68] 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[69] in Scotland said they would watch the new channel, with around four in ten saying they were very likely to (44%).[70] 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).[71]

A2.72 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.[72] The BBC's quantitative research

[67] Frontier CC report, page 48.
[68] See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.
[69] When referencing our consumer research, 'adults' in Scotland refers to those aged 16+.
[70] 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).
[71] 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).
[72] Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 21.

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.[73,74]

A2.73 STV Group also submitted consumer survey evidence on likely take-up of the new channel, [✂[75]].[76]

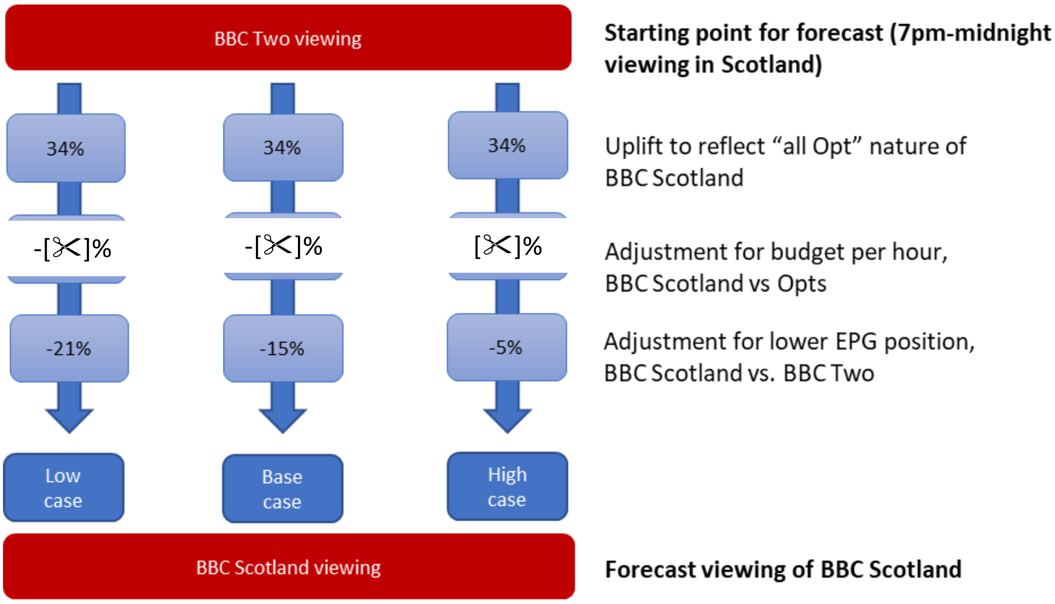
A2.74 Given the differences between the three surveys (in terms of methodology, sample and questionnaire design), we have not sought to compare the results relating to likely take-up of the new BBC Scotland channel across the three surveys.

A2.75 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.

A2.76 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.

[73] Q.10 How likely would you be to watch this channel regularly? Base: All adults aged 16+ in Scotland (1,038).
[74] 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.
[75] [✂]
[76] [✂]

Figure A2 5: Summary of adjustments



Source: *Ofcom*

A2.77 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)	1.52%	1.99%	3.50%

A2.78 Based on the viewing it is likely to attract during evening hours (7pm to midnight), we estimate BBC Scotland would achieve a share between 1.52% and 3.50% 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 1.99% in 2019 (1.07pp increase relative to Frontier CC's base case).

A2.79 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 channel budget and core broadcasting hours.[77] In addition, BBC Four currently occupies the EPG positions that BBC Scotland will take over on [✂] in Scotland.

A2.80 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 1.52% to 3.50% 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

A2.81 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.

A2.82 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.

A2.83 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

[77] BBC Four's broadcasting hours are 7pm to 4am daily.

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.[78] However, 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.[79] Based on our calculations, we estimate that BBC Scotland could gain a share of 0.07 percentage points from the broadcast of daytime opts programming.

A2.84 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)	0.063%	0.067%	0.075%

A2.85 Based on this, we estimate that BBC Scotland's gain could range from 0.063 to 0.075 percentage points (see Table A2 7 above). We note that 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.

[78] 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.

[79] 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.

A2.86 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.[80]

A2.87 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.[81] 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, we have applied a 5% figure after adjusting for the relevant proportion of hours (12 noon – 7pm) to estimate a viewing share gain of 0.08 percentage points in 2019 from the simulcast service (0.06pp decrease relative to Frontier CC's estimate).[82]

Overall BBC Scotland viewing

A2.88 In total, under our base case, we estimate that BBC Scotland could achieve a viewing share of 2.14% 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 (1.99pp);

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[80] 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%.

[81] 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

[82] 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.

ii) the 150 hours of daytime opts programming between 12 noon and 7pm (0.07pp); and

iii) a BBC Two simulcast service between 12 noon and 7pm to fill schedule gaps (0.08pp).

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)	1.65%	2.14%	3.65%

A2.89 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 1.65% to 3.65% in 2019 (see Table A2 8 above). We estimate that its average weekly reach could range from 9.70% to 21.40% in 2019 (based on the relationship between viewing share and average weekly reach estimated by Frontier CC).[83]

Changes of viewing for BBC Two, BBC Four and CBBC

A2.90 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 and stakeholder views

A2.91 Frontier CC recognised that on average opts programming tends to outperform network programming on BBC Two during the evening.[84] 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

[83] 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.

[84] Frontier CC report, section 5.3.1.

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.[85] The net effect of the loss of daytime and evening opts on BBC Two's overall share was 0.03 percentage points.

A2.92 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.[86] 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,[87] which corresponds to a 0.15 percentage points reduction in its viewing in 2019.

A2.93 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.[88]

A2.94 Stakeholders did not comment on Frontier CC's modelling of BBC Two, BBC Four or CBBC impacts.

Our approach

A2.95 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.

A2.96 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 -2.69% 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 (1.48pp higher). We have also estimated the likely viewing impact on BBC Two from the loss of daytime opts programming using Frontier CC's approach,[89] so that, in total, we estimate a viewing impact of -0.06pp on BBC Two in 2019 (based on its loss of opts 12 noon – 12 midnight).

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[85] 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.

[86] Frontier CC report, section 5.3.3.

[87] 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%).

[88] 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.

[89] 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

A2.97 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).[90,91]

A2.98 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 0.21% 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 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

A2.99 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,

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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.

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

[91] 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.

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

Viewing share (pp)	Low	Base	High
BBC Two	-0.06pp	-0.06pp	-0.06pp
BBC Four	-0.15pp	-0.15pp	-0.15pp
BBC Scotland	1.65pp	2.14pp	3.65pp
Net change	1.44pp	1.93pp	3.44pp

A2.100 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.

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

A2.101 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 and stakeholder views

A2.102 Frontier CC assumed, in its modelling, that BBC Scotland has no material impact on overall TV viewing.[92] 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.

A2.103 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.[93] 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 10 below).

[92] Frontier CC report, section 5.1.
[93] Frontier CC report, section 5.3.8.

Frontier CC noted that this approach is broadly consistent with that taken by Ofcom in the BBC Three Market Impact Assessment.[94] 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.

Table A2 10: Frontier CC estimates for the viewing mix of heavy opts viewers and the share of Scottish viewing in 2019[95]

	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

A2.104 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.[96]

A2.105 We received no comments in relation to the BBC's substitution approach. However, MG Alba argued that a detailed analysis was required to understand the potential audience substitution from BBC Alba to the proposed new channel.[97]

Our approach

A2.106 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.

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[94] 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.

[95] Columns may not add up exactly to 100% due to rounding.

[96] Frontier CC report, section 5.3.8.

[97] MG Alba response to Ofcom's "Invitation to Comment", page 2.

A2.107 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.

A2.108 We have updated Frontier CC's analysis by using the viewing mix of heavy BBC Two opts viewers in 2017 (see Table A2 11 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 from BBC Two and BBC Four to other channels in proportion to Scottish viewing shares.

A2.109 Additionally, we have estimated a viewing mix that accounts for STV2's potential growth over time and the greater share of viewing the channel may capture amongst heavy BBC Two opts viewers in the future (see Table A2 11 below).[98] For comparison purposes, we have included projected channel shares of Scottish viewing in 2019 based on our counterfactual scenario.

Table A2 11: Scenarios for the substitution of viewing to BBC Scotland in 2019[99]

	Viewing mix of heavy opts viewers fixed at 2017 levels (%)	Viewing mix of heavy opts viewers adjusted for STV2 growth (%)	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.

A2.110 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.

A2.111 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

[98] We have uplifted STV2's viewing share to reflect alternative growth assumptions and we have applied a downlift to other channels in proportion to the 2017 viewing shares of heavy BBC Two opts viewers.
[99] Due to rounding, figures may not add up exactly to 100%.

channels in line with the proportions set out Table A2 11 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 A2.24 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 12 below.

Table A2 12: 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	1.65pp	2.14pp	3.65pp
BBC One	22.46%	-0.44pp	-0.58pp	-1.03pp
BBC Two	5.85%	-0.20pp	-0.24pp	-0.37pp
BBC Four	0.95%	-0.17pp	-0.18pp	-0.20pp
Other BBC	1.68%	-0.02pp	-0.03pp	-0.05pp
STV / ITV Border	15.09%	-0.21pp	-0.28pp	-0.50pp
City TV / STV2	0.21%	-0.006pp	-0.008pp	-0.013pp
Other channels	53.76%	-0.60pp	-0.81pp	-1.47pp
Total BBC portfolio channels	30.94%	0.82pp	1.10pp	1.99pp
Total commercial channels	69.06%	-0.82pp	-1.10pp	-1.99pp

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

A2.112 If the counterfactual and pattern of substitution are adjusted for the potential growth in STV2 from 2017 onwards as shown in Table A2 11 above, we predict a higher viewing share loss for STV2 of between -0.010 to -0.022 percentage points (compared to the loss of -0.006 to -0.013 percentage points presented in Table A2 12 above).

Comparison of patterns of substitution with consumer survey results

A2.113 As a cross check that the substitution patterns in Table A2 11 above are reasonable, we have compared them against the consumer survey results that we have received.

A2.114 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.[100] 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).[101] 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.[102] 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%).[103]

A2.115 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.[104] 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.[105] 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.[106] 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%).

[100] See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.
[101] 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).
[102] 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).
[103] BBC iPlayer (5%), STV Player (5%), ITV Hub (3%), All 4 (6%), My 5 (6%).
[104] Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 22.
[105] 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).
[106] "Other channels" includes: any STV/ITV, any Channel 4, any Channel 5, any Sky, Netflix and Amazon Instant Video.

A2.116 STV Group also submitted consumer survey evidence, [✂[107] [108]].[109]

A2.117 As noted in paragraph A2.74 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.

A2.118 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.

A2.119 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.[110]

A2.120 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.[111] Table A2 13 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).

[107] [✂]
[108] [✂]
[109] [✂]
[110] 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. [✂]
[111] 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 13: Scenarios for the substitution of viewing to BBC Scotland in 2019[112]

	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);[113] *BARB data (BBC Scotland region) (column two); Ofcom analysis using BARB data (columns three and four).*

A2.121 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).

A2.122 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%) 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

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

[113] 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 111. 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.

that channel's viewing share (column two).[114] We then calculated an implied share for each channel based on these weighted values (column three).

A2.123 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

A2.124 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.

A2.125 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.[115] Fewer, 24%, thought that they would watch the new channel instead of their existing viewing and 14% did not know.[116] 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.

A2.126 However, as noted in paragraph A2.75 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 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.[117]

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[114] 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).

[115] 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).

[116] STV Group submitted consumer survey evidence, [✂].

[117] Frontier CC report, page 47.

Viewing impact on BBC Alba

A2.127 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.[118]

A2.128 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.[119]

A2.129 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 1.3 million viewing hours, which would be 2.0% of its viewing hours in 2016. Using low and high take-up scenarios for BBC Scotland, we estimate a range of 1.6% to 3.5%. This range represents our best approximation of the impact on BBC Alba given the available data, although we recognise that it may under- or over-estimate the scale of substitution away from BBC Alba:[120,121,122]

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[118] 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+).

[119] 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

[120] 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).

[121] 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.

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

- 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.[123]
- 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.

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

A2.130 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 and stakeholder views

A2.131 Frontier CC noted that the BBC Scotland channel is unlikely to have any material impact on pay TV or SVoD retailers.[124] 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.

A2.132 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.[125]

A2.133 This is also consistent with the results from the BBC's quantitative research.[126] Amongst potential BBC Scotland viewers, only [✂] stated that they may watch Sky channels less

[123] 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%).
[124] Frontier CC report, section 7.
[125] Frontier CC report, section 7.1.
[126] Kantar TNS, BBC Scotland, New Channel Public Interest Test, Presentation of results, 28 July 2017, slide 22.

often and only [✂] (respectively [✂]) stated that they may watch less Netflix (respectively Amazon) content.[127] To estimate the potential loss in Scottish subscriptions, Frontier CC 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.

A2.134 We received no comments from stakeholders on this issue.

Our approach

A2.135 We agree 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.

A2.136 Our consumer survey suggests that the potential impact on pay TV and SVoD subscriptions is likely to be negligible.[128] 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%).[129] 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,[130] say they would watch less if the new channel launched.[131] 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.

A2.137 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

[127] Frontier CC report, section 7.3.
[128] See BBC Competition Assessment: Scotland research – Chart pack and BBC Competition Assessment: Scotland research – Data tables.
[129] 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).
[130] 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.
[131] See BBC Competition Assessment: Scotland research – Data tables.

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 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.