Methodology for determining the financial terms for the Channel 3 and Channel 5 licences

Statement

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Section 1

Executive summary

1.1 The Channel 3 and Channel 5 broadcast licences are due to expire on 31 December 2014. Under the provisions of the Communications Act 2003 (the "Act"), the licensees may apply to renew their licence(s) for a further period of 10 years. In line with section 229 of the Act, Ofcom submitted a report to the Secretary of State for Culture, Media and Sport on matters which are relevant to Channel 3 and Channel 5 licence renewal. This was published in May 2012.[1]

1.2 On 21 November 2012, the Secretary of State advised that she did not intend to block the renewal. Ofcom is therefore continuing with the renewal process of Channel 3 and Channel 5 broadcast licences for a period of 10 years, commencing on the expiry of the existing term, from 1 January 2015.

1.3 In order to obtain a licence renewal, the holders of Channel 3 and Channel 5 licences must submit an application to Ofcom within the period set out in the Act. If Ofcom decides to renew their licences it must determine the financial terms on which the licences are to be renewed. The determination must comprise two different types of payment. The first is a percentage of the licensee's qualifying revenue ("PQR") and the second is a fixed annual cash payment. To assess the amount of the annual cash payment, Ofcom is required to determine the amount which, in its opinion, would have been the cash bid of the licence holder were the licence being granted afresh in a competitive auction process (under section 15 of the Broadcasting Act 1990 (the "1990 Act")).

1.4 On 21 February 2013 Ofcom published a consultation ("the consultation") that set out its proposed approach to determining the financial terms for the Channel 3 and Channel 5 licences should the licences be renewed.[2] Ofcom received six responses to the consultation from ITV plc, STV Group plc, UTV Media plc, Channel 5, the Commercial Broadcasters Associated (COBA) and Everything Everywhere (EE).[3]

1.5 Ofcom's objective is to determine a fair and reasonable value for each licence (in accordance with the statutory requirements) and to set new financial terms according to a fair and objective process. Subject to a small number of changes, which we set out in this statement, the overall methodology we have adopted to determine financial terms is consistent with that set out in the consultation. The process will allow Ofcom to set terms that are reasonable within the context of the current market environment and that will continue to be reasonable for the period of the renewed licences. This means that we will take into account reasonably foreseeable changes in the market and regulatory environment that will impact the financial terms for each licence.

1.6 Ofcom will seek data and information from licensees ("submissions") that will allow Ofcom to determine financial terms in line with the methodology set out in this document. These submissions will include licensees' views of the value a new entrant would place on the licences in the context of a hypothetical auction. Once these submissions have been received, Ofcom will review them and, where

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[1] http://stakeholders.ofcom.org.uk/broadcasting/tv/c3-c5-licensing
[2] http://stakeholders.ofcom.org.uk/consultations/c3-c5-finance/
[3] Non-confidential versions of responses can be found here: http://stakeholders.ofcom.org.uk/consultations/c3-c5-finance/?showResponses=true

necessary, seek further evidence in order to arrive at what we consider to be a fair and reasonable determination of financial terms for the renewed licence period. We expect to determine financial terms in November 2013, subject to submissions being received from the licensees.

Section 2

Legal framework

2.1 On 21 November 2012, the Secretary of State advised Ofcom that she did not intend to block the renewal of Channel 3 and Channel 5 broadcast licences. Ofcom is therefore continuing with the renewal process of the licences for a period of 10 years, commencing on the expiry of the existing licences (from 1 January 2015).

2.2 Under section 216 of the Communications Act 2003 (the "Act") the holders of Channel 3 and Channel 5 licences may apply to Ofcom for a 10 year renewal of their existing licences. Applications for renewal must be made within the period set out under the Act. Licensees were notified that the closing date for the on-going process was 15 March 2013. Each Channel 3 and Channel 5 licensee has applied for licence renewal.

2.3 Section 216(4) of the Act states that on receipt of an application Ofcom must decide whether to renew the licence and must notify the applicant accordingly. Pursuant to section 216(4A)(b), if Ofcom decides to renew a licence it must determine in accordance with section 217 the financial terms on which the licence will be renewed. The determination regarding financial terms of the licences shall follow the decision to renew Channel 3 and Channel 5 licences. This Statement sets out the methodology that would be followed to determine the financial terms if Ofcom decides to renew Channel 3 and Channel 5 licences.

2.4 Under section 217 of the Act Ofcom must determine two elements:

2.4.1 a fixed annual cash amount (the "cash bid") to be paid for the licence in respect of the first complete calendar year falling within the renewal period;[4] and

2.4.2 a percentage of qualifying revenue (the "PQR") payable for each accounting period of the licence holder falling within the renewal period.

2.5 The Act does not set out any process that Ofcom must follow in order to determine the PQR. As regards the annual cash bid, however, section 217(2) of the Act requires Ofcom to determine the amount that, in its opinion, would have been the cash bid of the licence holder were the (instead of being renewed) to be granted for the period of the renewal on an application made in accordance with section 15 of the Broadcasting Act 1990 (the "1990 Act"). This means that as regards the cash bid element of the financial terms Ofcom is required, in practice, to reproduce the effects of a hypothetical auction of the licences.

2.6 Subject to the Channel 3 and Channel 5 licences being renewed, the proposed new financial terms will apply from the expiry of the current licence (31 December 2014) for a 10 year period. The period under review is from 1 January 2015 to 31 December 2024.

2.7 The financial terms attached to the Channel 3 and Channel 5 licences were last reviewed by Ofcom in 2010 ("the 2010 Review"). Ofcom published a statement on

[4] The Act requires for a cash amount to be paid in the first calendar year falling within the renewal period and in respect of each subsequent years that amount increased by the appropriate percentage (the RPI percentage increase as defined in section 19 of the 1990 Act).

the methodology ("the 2010 Statement")[5] and a determination ("the 2010 Determination").[6] Ofcom also reviewed the financial terms in 2005 ("the 2005 Review"), publishing a statement in 2004 ("the 2004 Statement")[7] and a determination in 2005 ("the 2005 Determination").[8]

[5] Statement published 3 March 2010 http://stakeholders.ofcom.org.uk/binaries/consultations/review_c3_c5_licences/statement/Statement.pdf

[6] Determination published on 1 October 2010 http://stakeholders.ofcom.org.uk/binaries/consultations/review_c3_c5_licences/statement/determination.pdf

[7] Statement published on 13 October 2044: http://stakeholders.ofcom.org.uk/binaries/consultations/channel3_consultation/statement/c3mstatement.pdf

[8] Determination published 29 June 2005: http://stakeholders.ofcom.org.uk/binaries/consultations/channel3_consultation/statement/ch3ch5fin.pdf

Section 3

Approach to the review

Introduction

3.1 The consultation set out Ofcom's proposed approach towards setting the PQR and determining the cash bid for each Channel 3 or Channel 5 licence holder that applies for a renewal of its licence.

3.2 Ofcom received six responses to the consultation from ITV plc, STV Group plc, UTV Media plc, Channel 5, the Commercial Broadcasters Associated (COBA) and Everything Everywhere (EE).[9]

Ofcom's statutory task

3.3 Section 217 of the Act sets out the statutory framework for determining financial terms following an application made by a licensee and Ofcom's decision to renew the licence. For the 10-year period of renewal Ofcom must determine two elements:

3.3.1 the cash bid to be paid for the licence. That amount must be equal to the amount the licence holder would have bid were the licence being granted afresh in a competitive tender under section 15 of the 1990 Act; and

3.3.2 the PQR as determined by Ofcom to be payable for each year of the licence.[10] The PQR can vary from year to year.

3.4 The definition of qualifying revenue is set out in section 19(2) of the 1990 Act. In the event of a competitive auction (under section 15 of the 1990 Act), Ofcom must set out, in its notice inviting licence applications, the PQR that would be payable by an applicant if it were granted the licence. The PQR would therefore be determined before bids are made for the cash bid element. No guidance is given in the Act as to how Ofcom should set the PQR or indeed the relative sizes of the PQR payments and cash sum.

3.5 As regards the amount of the cash bid, however, section 217(2) requires Ofcom to reach its decision in accordance with section 15 of the 1990 Act. To assess this amount Ofcom must in effect carry out a hypothetical auction of the licence as though it were being granted afresh.

3.6 Ofcom therefore has a level of discretion in relation to setting the PQR that it does not have in respect of the cash bid. However, Ofcom has taken the view that to ensure a consistent approach to setting both the PQR and the cash bid it is appropriate to conduct a single valuation according to common principles. This valuation is intended to meet the requirements of the Act in relation to determining the amount that, in Ofcom's opinion, would have been the cash bid, and also to provide a robust basis for informing Ofcom's decision as to the appropriate level of

[9] Non-confidential versions of responses can be found here: http://stakeholders.ofcom.org.uk/consultations/c3-c5-finance/?showResponses=true

[10] The Act says that the cash bid should be determined for each calendar year and the PQR for each accounting period. Since the Channel 3 and Channel 5 licensees each have December year ends for accounting purposes, these differences are not relevant in practice.

the PQR, taking into account both the objectives and the uncertainties discussed in this document.

Submissions from licensees

3.7 Ofcom will seek data and information from licensees ("submissions") that will allow Ofcom to determine financial terms in line with the methodology set out in this document. These submissions will include licensees' views of the value a new entrant would place on the rights and obligations associated with the licences.

Valuation methodology

3.8 The methodology set out in the 2004 Statement and 2010 Statement was established to inform Ofcom's decision when deciding on the PQR and determining the annual cash sum for each licence. In the consultation Ofcom proposed to use a similar approach to any determination required following an application for licence renewal. This is because Ofcom's statutory task and objective are identical whether it is required to determine financial terms following an application to renew the licences (as is the case here) or whether it is reviewing the financial terms following a request for a review from the licensees. As was the case in the 2005 and 2010 reviews, Ofcom's objective is to determine a fair and reasonable value for each licence (in accordance with a fair and objective process).

3.9 In the consultation Ofcom asked whether the overall valuation methodology remained appropriate for the determination of the PQR and cash bid element of the renewed licences. Respondents generally agreed that the overall methodology outlined in the consultation remained appropriate. Their comments mainly focused on the rights and obligations that should be included in the valuation, and Ofcom's approach to valuing these. We will deal with these specific comments under the relevant headings below. Given the broad agreement for the overall methodology, we have decided to adopt our proposed approach to the methodology, as described below.

Overarching principles

3.10 The consultation set out that each licence should be valued as a whole, although for the purposes of explanation and analysis we separately consider the rights and obligations associated with the licences. ITV said that a bidder would take into account all additional costs that are directly incremental as a result of holding a Channel 3 or Channel 5 licence. We agree, and will take into account costs and benefits that arise as a direct consequence of holding the licences.

3.11 The consultation explained that in principle, the value of a licence to any potential bidder would equal the additional profits that could be made as a result of the net effect of having all of the rights and obligations associated with holding the licence, over and above the profits that could be made via the next best alternative (i.e. if they did not hold a Channel 3 or Channel 5 licence).

3.12 Respondents did not disagree with the proposed counterfactual, but responses occasionally conflated different implicit counterfactuals. We have therefore sought to clarify the counterfactual we will use when valuing the Channel 3 and Channel 5 licences.

3.13 For the Channel 5 licence, the 'next best alternative' would be to operate a national non-PSB channel on the DTT, satellite and cable platforms. In contrast, determining the 'next best alternative' for individual Channel 3 licences is not as straightforward.

One alternative would be to assume that if a hypothetical bidder for a Channel 3 licence was not successful, it would operate an equivalent non-PSB channel instead. This, given that current Channel 3 licences are issued on a regional basis, would be a regional non-PSB channel on the DTT, satellite and cable platforms. This counterfactual would enable us to identify only those incremental costs and benefits that arise as a function of holding the Channel 3 licence, although in practice it may be difficult to operate regional non-PSB channels for each Channel 3 licence area, since this would depend on regionalisation options on each broadcast platform. An alternative counterfactual for individual Channel 3 licences might be to operate a national non-PSB channel. However, given that Channel 3 licences are currently held on a regional basis, this would make a poor counterfactual; for instance, the size of the licence areas would not be comparable which would make it difficult to assess which incremental costs and benefits arise as a result of holding the PSB licence and which arise due to differences in the size of the licence area. A third alternative might be for the unsuccessful hypothetical bidder to do nothing and not operate any channel. In this scenario the benefit of holding the Channel 3 licence would effectively be equal to the entire profit generated from the PSB licence, as all profits would be incremental relative to the counterfactual of not operating any licence.

3.14 Having considered the merits of these counterfactual scenarios and in light of responses and comments received as part of the consultation, we consider that the most appropriate counterfactual for the purposes of assessing the costs and benefits associated with each Channel 3 licence is that of holding and operating an equivalent non-PSB licence in the licence area. Given we are valuing each licence on a standalone basis (as explained in paragraph 3.22), this counterfactual will allow us to identify the incremental costs and benefits that arise directly as a consequence of holding each Channel 3 licence. We consider that this is likely to represent the value that a hypothetical bidder would likely place on each individual Channel 3 licence if they were being auctioned in the way described in paragraph 3.22.

3.15 Under this counterfactual, costs and benefits will only be included in the valuation to the extent that they arise as a direct consequence of holding a Channel 3 or Channel 5 licence compared to operating an equivalent non-PSB licence in the licence area.

3.16 While we will adopt this counterfactual for the purposes of assessing which costs and benefits to *include* in the valuation, for practical reasons we may *quantify* the cost or benefit at a more aggregate level and apportion this amount to individual licences (in the case of Channel 3) on an appropriate basis.[11] For example, when estimating the value of the right to appropriate EPG prominence for each individual Channel 3 licence, we may first estimate the value of this right to Channel 3 as a whole, and apportion this total value to licences on an appropriate basis.

3.17 The identity of the potential bidder will have a bearing on the value of the licence to that bidder, as it could impact the additional profits that could be made as a result of holding the licence. Ofcom considers that alternative bidders with the highest valuations are likely to be existing television companies.

3.18 Our approach to valuing the rights and obligations associated with each licence can be summarised as follows (we provide further details on how we will value individual rights and obligations below):

[11] For example share of revenue (often referred to as "QR shares") or share of transmission costs ("TX shares").

3.18.1 In general, we consider that if a right similar to one associated with the licence could be acquired through another source, the value of the right would be equal to the cost of obtaining it from that source. However, if the right could not be replicated elsewhere, then the value would equal the total financial benefit to the licensee of having the right.

3.18.2 Similarly, the costs of an obligation would be equal to the extra cost associated with meeting the obligation, compared to the cost that would be incurred without the obligation.

3.19 In general, where rights and obligations remain in place throughout the renewal period we will assume, in the absence of any evidence to the contrary, that their values remain constant in real terms throughout the renewal period. Where there is uncertainty around the introduction of additional costs and benefits (such as AIP, discussed in paragraphs 3.112 to 3.122), this will be reflected in the valuation.

Circumstances of the hypothetical auction

3.20 The consultation proposed that the hypothetical auction to assess the overall value of the licence would replicate circumstances as set out below.

3.21 The auction would be designed, within the framework of the legislation, to recover the maximum possible value consistent with the requirement that the successful bidder is also able to fulfil programming and other obligations associated with the licence.

3.22 Each licence would be offered individually on a non-contingent standalone basis in a single-round, sealed-bid auction. This is because, as explained in the October 2004 statement[12], for the purposes of conducting a hypothetical auction, we consider that the statutory framework makes it infeasible to assume that there is a multiple contingent bid auction. This means we will value each of the fifteen Channel 3 licences separately, on a standalone basis.

3.23 The amount the incumbent would bid in a competitive auction would be the minimum required to beat the second-highest bidder, and as such would not necessarily represent the maximum amount the incumbent would be willing to pay.

3.24 In order to determine the amount of the second-highest bid in an auction, Ofcom will estimate the net present value of the rights and obligations associated with the licence from the point of view of a new entrant. In order to win the auction the incumbent would need to bid slightly more than the new entrant.

Outcomes of previous reviews

3.25 Table 1 sets out the financial terms associated with each licence in the period prior to the 2005 Review, following the 2005 Review and following the 2010 Review.

[12] 2004 Statement, paragraphs 3.4 to 3.13.

Table 1: Financial terms determined for each Channel 3 and Channel 5 licence

	Prior to 2005		2005-2009		2010-2014	
	PQR	Cash bid (in 2004)	PQR	Cash bid (in 2005)	PQR	Cash bid (in 2010)
Channel 3 regions						
Anglia	17%	£3,631k	10%	£180k	0%	£10k
Border	2%	£79k	0%	£10k	Did not apply	
Carlton	20%	£17,849k	26%	£1,120k	0%	£10k
Central	17%	£7,994k	11%	£900k	0%	£10k
Channel	0%	£1k	Did not apply		Did not apply	
GMTV	23%	£4,523k	30%	£230k	Did not apply	
Grampian	6%	£111k	6%	£60k	Did not apply	
Granada	15%	£4,278k	9%	£240k	0%	£10k
HTV	7%	£2,323k	0%	£10k	Did not apply	
LWT	17%	£5,176k	21%	£720k	0%	£10k
Meridian	23%	£12,897k	14%	£320k	0%	£10k
Scottish	11%	£1,800k	0%	£10k	Did not apply	
Tyne Tees	16%	£2,239k	0%	£10k	Did not apply	
UTV	5%	£611k	5%	£120k	0%	£10k
Westcountry	13%	£1,289k	0%	£10k	Did not apply	
Yorkshire	22%	£8,524k	3%	£240k	0%	£10k
Channel 5	8%	£4,318k	8%	£680k	0%	£10k

Note: Where a licence did not apply for a review, its existing terms continued to apply. The cash bid increases by RPI each year. The PQR in these periods applied to analogue revenues only.

3.26 The 2005 Determination led to a reduction in the financial terms associated with each licence (other than Channel which did not apply). This was driven by the value of the right to broadcast on analogue reducing as the penetration of digital television increased and changes that Ofcom had made to licensees' PSB obligations.[13] The 2005 Determination noted that historically the value of the rights associated with the licences, in particularly the right to broadcast on analogue, outweighed the costs of the obligations associated with the licences such that licensees were prepared to make additional payments to HM Treasury. However, the 2005 Determination also noted that as digital switchover approached completion, the benefit associated with broadcasting on analogue would reduce and as a result it was possible that the value of the rights associated with the licence would be offset in full by the costs of the obligations associated with the licence such that a new entrant might be unwilling to pay more than a nominal sum for the licence.[14] For some licences we set nominal terms of £10,000, recognising that a hypothetical new entrant would not be prepared to make financial payments as well as deliver PSB programming in return for the rights attached to the licences.

3.27 By the time of the 2010 Determination, analogue viewing had reduced further as digital switchover neared completion, and we concluded that a hypothetical new entrant would not be prepared to make financial payments as well as deliver PSB programming in return for the rights attached to any of the licences that had applied for a review. As a result, we considered that the incumbent licence holders could retain their licences in a hypothetical auction for a nominal amount of £10,000 per annum for each licence (the same nominal amount as was set for some licences in the 2005 Review).

[13] 2005 Determination, paragraph 3.4,
[14] 2005 Determination, paragraph 3.19

3.28 The outcome of these reviews is that most licences are currently making nominal financial payments.

Digital switchover

3.29 Since the 2010 Determination digital switchover has completed[15]. This means that in the next licence period licence holders will no longer enjoy the right to broadcast on analogue and the profits previously associated with that right. The consultation set out that analogue cashflows will therefore not be included in the valuation.

3.30 We also said that, following completion of digital switchover, we did not consider that any costs relating to digital switchover will be relevant in the next licence period. No respondents disagreed with this.

The rights and obligations associated with the licences

3.31 In the consultation we said that Table 2 sets out the rights and obligations associated with the Channel 3 and Channel 5 licences and any other regulations that a new entrant might take into account when considering a bid for one of the Channel 3 or Channel 5 licences.

Table 2: Rights and obligations associated with the Channel 3 and Channel 5 licences

	Channel 3	Channel 5
Rights		
Reserved capacity on PSB multiplex 2 (half the multiplex)	✓	
Reserved capacity on PSB multiplex 2 for Channel 5 (sufficient to broadcast in SD) and commercial multiplex A (50% of the capacity, less capacity used for Five on Multiplex 2)		✓
Option to apply for reserved HD capacity on DTT (PSB multiplex B)	✓	✓
Right to appropriate prominence on EPGs	✓	✓
PSB programming Obligations		
Public Service Broadcasting Obligations		
- regional news (in and outside peak)	✓	
- Other regional content	✓	
- National and international news (in and outside peak)	✓	✓
- Originations (in and outside peak)	✓	✓
- Current affairs (in and outside peak)	✓	✓
- Independent production	✓	✓
- Production outside London	✓	✓
Other regulations		
Extra restrictions on advertising minutage	✓	✓

3.32 We asked whether there were any other rights, obligations or regulations associated with the Channel 3 and 5 licences that we should consider, or any other factors that may affect the valuation. If so, we asked respondents to explain how we should take them into account and provide any relevant data or analysis to support their suggestions.

3.33 Some of the respondents suggested additional costs and benefits that they considered Ofcom should take into account when valuing the licence

[15] http://media.ofcom.org.uk/2012/10/24/end-of-an-analogue-era-paves-way-for-4g-mobile/

3.34 COBA suggested that there are a range of benefits that are currently not taken into account, most notably:

- Legacy brand value.
- Cross promotional value.

3.35 Other respondents indicated that costs associated with the following should be taken into account in the valuation:

- Higher Ofcom licence fees;
- Contributions to the National Television Archive;
- Channel 3 subtitling targets;
- Code of Practice governing commissioning relations with independent producers;
- ‘Must offer’ obligations;
- Party Political Broadcasts (PPBs).
- Regulatory oversight costs.

3.36 We consider each of these suggestions below when explaining how we will value the incremental costs and benefits associated with the licences. Our overall approach, however, allows for the inclusion of costs and benefits in the valuation to the extent that they arise as a direct consequence of holding the licence. Where, as part of their submissions, licensees present data or evidence indicating the existence of an incremental cost or benefit associated with holding a Channel 3 or Channel 5 licence, we will consider incorporating this into the valuation.

Valuing the rights and benefits associated with the licences

General approach

3.37 As set out in the consultation, in general, we consider that if a right similar to one associated with the licence could be acquired through another source, the value of the right would be equal to the cost of obtaining it from that source. However, if the right could not be replicated elsewhere, then the value would equal the total financial benefit to the licensee of having the right. Where a forecast cash flow is used then it may be relevant to apportion costs and revenues to broadcast platforms (e.g. DTT, Satellite, Cable) based on the share of viewing.

Reserved capacity on DTT – Channel 3

3.38 Channel 3 licence holders have the right to reserved capacity on Multiplex 2 as well as joint ownership of the multiplex alongside Channel 4. This means that Channel 3 licence holders only need to pay their share of the multiplex costs to secure carriage rather than the market rate on a commercial multiplex. An additional benefit associated with reserved capacity on a PSB multiplex is that they cover around 98.5% of the UK population, rather than the 90% achieved by commercial multiplexes.

3.39 For Channel 3 licences, we proposed that the value of the standard definition digital terrestrial television ("DTT") rights would be based on the costs of replicating those rights through purchase in the market, less the costs associated with operating Multiplex 2. Although there is a market for carriage on commercial multiplexes, there is only a limited market for carriage on PSB multiplexes. Therefore we proposed to proxy the cost of carriage on a PSB multiplex. We proposed to do this as follows:

3.39.1 In July 2010 Ofcom determined the price that Five needed to pay Digital 3 and 4 Ltd (the holder of PSB Multiplex 2) for carriage on that multiplex ("the 2010 Price Determination").[16]

3.39.2 The 2010 Price Determination was at a premium to the then market rate of carriage on a commercial multiplex. We proposed to calculate this premium (in percentage terms) and apply it to the current market value of a carriage on a commercial multiplex in order to estimate the current market value of carriage on a PSB multiplex.

3.40 ITV said it agreed with this approach and that since the price paid by Channel 5 for carriage on Multiplex 2 was an actual price, Ofcom's valuation should draw on this.

3.41 Another respondent did not agree with part of the methodology. The respondent said that the PSB premium[17] in the 2010 Price Determination was based on the costs to the multiplex operator of providing the additional coverage that Multiplex 2 offers compares to a commercial multiplex. The respondent therefore thought that Ofcom should calculate the benefit to Channel 3 by adding to the commercial benchmark the cost of providing the additional PSB coverage.

3.42 In the 2010 Price Determination, Ofcom said that "*it would be appropriate for the price of the incremental PSB coverage to include a reasonable contribution to the common costs incurred by the mux operator in the provision of the additional PSB coverage*".[18] We understand that the respondent is suggesting that Ofcom could use this method again to proxy what the market rate would be for carriage on Multiplex 2. However, given a market rate is currently available (i.e. the price currently paid by Channel 5 for carriage on Multiplex 2), we consider it is more consistent with our overall methodology to valuing rights to estimate the value of the benefit enjoyed by Channel 3 by reference to this market rate, rather than carry out an assessment of the costs of providing the additional coverage. We will therefore estimate the current market value of carriage on Multiplex 2 using the approach proposed in the consultation. However, if a more up-to-date estimate of the market value of carriage on Multiplex 2 becomes available prior to the determination, we will use this in our valuation.

3.43 Channel 5 said that Ofcom's valuation should take into account the total number of videostreams that it would be possible to deploy on the multiplex by the time the new licence period starts (which may be more than the number of videostreams currently available). Channel 5 noted that in 2008, Ofcom said that nine services could

[16] *Determination between Digital 3 and 4 Limited and Channel 5 Broadcasting on charges payable for services on DTT multiplex 2*, 28 July 2010. http://stakeholders.ofcom.org.uk/binaries/enforcement/competition-bulletins/closed-cases/all-closed-cases/754344/determinationd34.pdf

[17] i.e. the additional price paid by Channel 5 to reflect the fact that PSB Multiplex 2 has a larger coverage area than commercial multiplexes.

[18] The 2010 Price Determination, Paragraph 1.16.

feasibly be carried on Multiplex 2, at a time when the public teletext service was still occupying capacity on it.[19]

3.44 While we noted in 2008 that nine services could feasibly be carried on Multiplex 2, we also said that the multiplex operator is best placed to assess whether additional services could be supported, taking into account quality and commercial considerations.[20] When making our determination we will take any information into account that becomes available up to the point the determination is made, including any indications that additional videostreams could be reasonably expected to be introduced during the next licence period.

Reserved capacity on DTT – Channel 5

3.45 Capacity is reserved for Channel 5 on Multiplex 2 and on Multiplex A. Unlike the Channel 3 licence holders, however, Channel 5 is required to agree commercial carriage fees with the multiplex operators. This means that the value of the right to reserved capacity is lower for the Channel 5 licence than for the Channel 3 licences, but the right to reserved capacity does deliver long term security of carriage for the Channel 5 licence holder which we proposed to take into account in the valuation.

3.46 Channel 5 said it was in broad agreement with this approach. We will therefore include in the valuation an estimate of the benefit to Channel 5 of its reserved capacity. This will be informed by licensees' submissions and will be based on an estimate of the reduced contracting costs incurred by the Channel 5 licence holder.

Option to apply to broadcast in HD on DTT

3.47 The option to apply to broadcast in high definition using DTT capacity is available only as a consequence of holding a Channel 3 or Channel 5 licence. In the consultation we considered that a new entrant applying for a licence renewal would only take up the option of applying to broadcast a DTT HD service if it had a positive net present value (NPV) over the full licensing period (here 10 years). If the HD service was expected to have a negative NPV, the entrant would not take up the option. As in the 2010 Review, Ofcom will examine the existing business plans for licensees' HD operations when considering what value to attach to this option.

3.48 ITV was the only respondent to comment on the option to apply to broadcast in HD on DTT and it did not consider that the right had a material value. It agreed that the valuation of the option should be informed by an assessment of the NPV of broadcasting in HD on DTT over the licence period. However, it said even if the NPV was positive, it does not follow that the bidder would include the entirety of that NPV in its licence valuation, since the bidder would only be valuing the option and not the exercise of that option. ITV recognised however, that the option may have a value to a bidder even if the NPV of exercising the option was negative. ITV said that a number of market participants appear to believe that HD on DTT is not currently a value enhancing investment, noting that Channel 5 has not taken up its option of HD capacity. It also noted that Ofcom did not quantify the value of the option to broadcast in HD on DTT in its s229 report.

3.49 We agree that the Channel 3 and Channel 5 licences come with an option to apply to broadcast on HD, and that the value of this option does not equate to the NPV of exercising that option. However, we consider that an assessment of the NPV of

[19] *Digital Television: Enabling New Services*; 3 April 2008, paragraph 4.54.
[20] *Digital Television: Enabling New Services*; 3 April 2008, paragraph 4.54.

exercising the option informs the value of the option itself, since an option which, when exercised, gives the potential for a high NPV will be worth more than an option which only gives the potential for a low or negative NPV. We recognise that Channel 5 has not taken up the option and there are not currently any other HD channels on DTT (other than those provided by BBC, ITV and Channel 4), which may suggest that the NPV of exercising the option today and broadcasting on HD may be limited. To the extent that the NPV of exercising the option is limited, we do not consider a new entrant would place a significant value on the option. The value we put on the option will be informed by licensees' submissions on the NPV of operating a HD channel on DTT in the period 2015 to 2024.

Right to appropriate prominence on EPGs

3.50 The Channel 3 and Channel 5 licences carry with them the right to an appropriate degree of prominence on electronic programme guides (EPGs).

3.51 In the consultation, we said that the right to appropriate EPG prominence is likely to carry some value but that estimating that value is difficult and there are reasons why the right may have different values to existing broadcasters compared to the value that would be conferred on it by a new entrant. In the 2010 Review we said that a new entrant would not necessarily assume that they would be granted a particular channel number, since there may be alternative ways of interpreting the right to due prominence on the EPG.[21]

3.52 We noted that in our report to the Secretary of State published in May 2012, we said that "*the size of this benefit is difficult to quantify"* but that, based on a consideration of the available evidence, "*the value of the right to appropriate prominence to ITV plc is likely to range from £5m to £40m per annum"[22].* We specified that this was an estimate of the possible value to one of the incumbent Channel 3 licence holders (ITV plc) and we invited views on what evidence exists that could help quantify the value of this right to a new entrant for both the Channel 3 and Channel 5 licences.

3.53 Three respondents commented on the right to appropriate EPG prominence. STV agreed that it was a benefit, but that it did not have any data to put a value on it. STV considered that the emergence of new platforms could diminish the value of the right.

3.54 ITV said that the right to appropriate prominence does not guarantee a particular slot. It said that it thought the value of appropriate prominence had some value for incumbent licence holders (although it queried the £5-40m range referred to in paragraph 3.52) but that the key issue for the licence valuations was the value to a hypothetical new entrant. ITV also said that Ofcom's consultation implied that the value of EPG prominence would only be calculated by reference to DTT since Ofcom said at paragraph 3.25 that "*digital satellite and cable services are not part of the licensed service. They are therefore not included in the valuation*". ITV thought that Ofcom's implicit assumption was that a new entrant would simply transition its existing business into a PSB-licensed business. Although this may be the case, our counterfactual, as stated above is of a new non-PSB business rather than a new PSB version of an existing channel.

[21] 2010 Statement on the methodology, paragraph 3.75.
[22] http://stakeholders.ofcom.org.uk/binaries/broadcast/tv-ops/c3_c5_licensing.pdf, paragraphs 6.73 and 6.74. An estimate for Five was not published in the non-confidential version of this document.

3.55 Channel 5 thought that the right to EPG prominence had considerable value to incumbent operators, although the size of the value would depend on the counterfactual. It considered that the value to a new entrant would be less than the value to the incumbents. Channel 5 said it was developing two approaches that could help assess the value of the right to appropriate EPG prominence.

3.56 We consider that a new entrant would attach a value to the right to appropriate EPG prominence. The value will depend on the entrant's expectations over what EPG position it would occupy if it won the licence and the audience and revenue uplift it considers would be associated with such a position, compared with the EPG position it would occupy if it did not hold a Channel 3 or Channel 5 licence. We will take into account the lack of certainty over the final EPG position in our licence valuation. Our valuation will be informed by a number of sources of information, including:

3.56.1 Actual prices paid for EPG positions. On the Sky platform there have been a number of acquisitions of EPG slots, typically for positions lower down the EPG.

3.56.2 Reports commissioned by Ofcom, for example the 2013 report by FEH Media Insight ("2013 FEH-MI Report")[23] and the 2010 report by Attentional ("2010 Attentional Report")[24].

3.56.3 Submissions by licensees (including the approaches suggested by Channel 5 in paragraph 3.55).

3.56.4 Other publicly available reports, for example the 2012 report by Technologia for the DCMS[25].

3.57 To clarify, the £5-40m range quoted in paragraph 3.52 was an estimate of the value of the right to appropriate EPG prominence for the incumbent licence holder ITV plc. This range was based on the audience analysis from the 2010 Attentional Report which Ofcom converted into a revenue impact by reference to ITV plc's published net advertising revenue (NAR). The revenue impact from a change in audience associated with a move up or down the EPG is difficult to quantify, and the £5-40m range for ITV plc could be refined. However, this range should not be read as our estimate of the valuation that a new entrant might place on the right to appropriate EPG prominence, although it might serve as a helpful reference point, subject to updating the calculations of the range with more up-to-date and precise revenue data, and factoring in the conclusions of the 2013 FEH-MI Report. This is because, in the extreme, the benefit (additional revenue) to a new entrant of obtaining the level of prominence enjoyed by the incumbents could be proxied by estimating the revenue loss the incumbents could suffer if they lost prominence. However, we consider that the upper end of the range from such an estimate is likely to represent the maximum value a new entrant could place on the right if it was guaranteed the same level of prominence as the incumbents.

3.58 We also confirm that since the right to appropriate prominence applies to all EPGs, our valuation will take into account the benefit of this right across all platforms, i.e. DTT, cable and satellite.

[23] http://stakeholders.ofcom.org.uk/consultations/c3-c5-finance/analysis/
[24] http://stakeholders.ofcom.org.uk/consultations/review_c3_c5_licences/attentional
[25] *The value and optimal management of channel position and prominence on electronic programme guides*, 4 July 2012. http://dcmscommsreview.readandcomment.com/wp-content/uploads/2012/07/The_value_and_optimal_management_of_channel_position_and_prominence_on_electronic_programme_guides.pdf

Legacy brand value

3.59 COBA considered that the licence valuation should take into account the legacy brand value that it argues the incumbent licence holders enjoy.

3.60 The incumbent licence holders have built sizeable audiences and profitable businesses from their historic ownership of the Channel 3 and Channel 5 licences. However, we do not agree with COBA that a new entrant bidding for the licences would consider that one of the benefits of holding a Channel 3 or Channel 5 licence would be access to a 'legacy brand value' that it would enjoy simply by virtue of holding a Channel 3 or Channel 5 licence. Whether or not a new entrant could create a successful brand out of holding a Channel 3 or Channel 5 licence would depend, amongst other things, on the investment it made in marketing and content. Acquiring a Channel 3 or Channel 5 licence may help *enable* the winning entrant to build a successful brand and business, but this is not a benefit that follows automatically from holding the licence without investment on the part of the licence holder. We therefore do not intend to factor an allowance for 'legacy brand value' into the valuation.

Cross promotional value

3.61 COBA argued that another benefit associated with the Channel 3 and Channel 5 licences was the value of cross promoting with other channels within the corporate portfolio of the licence holder. A report commissioned by COBA in 2012[26] suggests that the incumbent Channel 3 and Channel 5 licence holders enjoy a benefit of £22m per year because they are able to cross promote onto their portfolio channels. COBA said that it believed the growth in PSB portfolio channels had been driven by the relationship with the PSB main channels, reflecting the benefit of cross promotion through advertising but also repeats of shows that have had exposure on the main PSB channels. We recognise that a cross promotional benefit may arise from operating multiple channels, a benefit that may be realisable whether or not a PSB licence is held. However, in the case of a PSB licence holder, the cross promotional benefit could be enhanced by virtue of the 'appropriate' EPG prominence accorded to the PSB channel. Any such enhancement will be reflected in our valuation of the right to appropriate EPG prominence.

3.62 A cross-promotional benefit could also arise because one of the benefits of holding these licences is that capacity on DTT is reserved, which, given current compression techniques, is currently broadly equivalent to three or four videostreams for Channel 3 and Channel 5 licence holders.[27]

3.63 In our counterfactual, a non-PSB broadcaster may wish to launch 'family' channels, although in order to do this it would need to acquire additional DTT videostreams. This may take time to achieve. In contrast, we recognise that winning bidders for Channel 3 and Channel 5 licences will have immediate access to multiple videostreams upon licence grant. Therefore, we consider that a licence bidder would place a value on the cross promotional benefit arising from having multiple videostreams only insofar as they intended to make use of their access to multiple videostreams. This benefit would only accrue for as long as the bidder would be unable to acquire additional videostreams in a non-PSB counterfactual. We note that the incumbent licence holders launched their 'family' channels over a period of years.

[26] *Valuing the benefits of Channel 3 and Channel 5 licensing,* Communications Chambers, February 2012.
[27] We explained in paragraphs 3.38 to 3.46 how we will value the benefit of this reserved capacity.

3.64 In conclusion, for the purposes of the valuation, we will consider evidence supporting the possibility that a winner of a Channel 3 or Channel 5 licence is likely to launch services on multiple DTT video streams in quicker succession than it would otherwise have been able to do, and the value of any cross promotional benefit to which such an act may give rise.

Valuing the costs and obligations associated with the licences

Cost of meeting PSB programming obligations

3.65 The valuation of the licence should also reflect the incremental costs that the licence implies as a result of the obligations it imposes. In the consultation we said that the primary cost is the cost of meeting the PSB programming obligations listed in Table 2. The cost of meeting PSB obligations is equal to the additional costs associated with providing such programming (compared with the costs of alternative commercial programming). The cost of meeting PSB obligations may also include the opportunity costs of lost advertising revenue if the PSB programming attracts less advertising spend than alternative commercial programming. We proposed to take the opportunity cost of lost advertising revenue into account where stakeholders were able to present data or evidence to support the incremental revenues that could be generated by alternative commercial programming.

3.66 As in the 2005 and 2010 reviews, we said that the expected cost of PSB obligations would be forecast and considered separately. The PSB cost calculation will include both the increased programming cost and, where evidence is available, the reduction in advertising revenue received as a result of showing PSB programming that attracts less advertising revenue than might otherwise be received.

3.67 We asked whether stakeholders agreed with this approach to assessing the opportunity costs associated with PSB programming obligations, and if not, what alternative approaches would be available.

3.68 Four respondents commented on this question and all agreed with this approach. ITV noted that the PSB programming opportunity cost would include capital costs associated with studio equipment, start up costs and, in the case of Channel 3 licences, standalone costs. Channel 5 said that, over the course of the licence period, the programming schedule could change, but it would make sense to work on the basis of a steady state programme schedule.

3.69 The opportunity cost of meeting PSB obligations will be included in the valuation. This opportunity cost will be equal to the additional costs associated with providing PSB programming compared with an alternative commercial schedule. The opportunity cost will also include the revenue foregone as a result of showing PSB programming over the same alternative commercial schedule, where this is supported by data and evidence in the licensees submissions.

3.70 To the extent the nature of some opportunity costs means that they would apply in a launch period, such costs will be included in the valuation. Capital costs will be included to the extent that they are incurred as a result of the obligation to provide PSB programming and would not be incurred under the alternative commercial schedule. In relation to Channel 3, where our methodology requires us to value each licence on a standalone basis, standalone costs may be more likely to relate to some of the non-programming costs discussed later (for example regulatory oversight costs in paragraph 3.88) than the PSB programming costs discussed here.

3.71 Ofcom published a consultation on proposals to amend the PSB obligations applicable to Channel 3 and Channel 5 licences on 21 February 2013. A statement setting out changes to the PSB obligations was published on the same day as this statement (the statement is called *Channel 3 and Channel 5: Statement of Programming Obligations*). Our assessment of the costs of PSB programming obligations will be based on those set out in that statement.

Extra restrictions on advertising minutage

3.72 The amount of advertising UK television broadcasters are allowed to show is determined by Ofcom, based on European legislation, the AVMS Directive and implemented by Ofcom's Code on the Scheduling of Television Advertising (COSTA). The COSTA sets limits on the amount of advertising for PSB channels (including Channel 3 and Channel 5) and all other commercial broadcasters. Ofcom's December 2011 Statement on "*Regulating the quantity of advertising on television*"[28] provided a summary of the COSTA rules:

Table 3: Summary of COSTA rules

	PSB	Non PSB
Maximum average number of minutes of advertising per hour for hours broadcast	7mins/hour	9mins/hour
Maximum number of minutes of adverts in any single hour	12mins/hour	12mins/hour
Maximum average number of minutes per hour in peak (6pm – 11pm)	8mins/hour	Rule does not apply
Teleshopping allowance	Included in advertising allowance and only allowed midnight – 6pm	3mins/hour in addition to advertising. Can be any time of day.

Source: Regulating the quantity of advertising on television, Figure 1

3.73 The effect of the COSTA rules is to reduce the maximum number of advertising impacts that are available for sale on a Channel 3 or Channel 5 licence compared to a non-PSB alternative.

3.74 In the consultation we said that we considered that a new entrant was likely to consider in the round any impact on revenue from holding a Channel 3 or Channel 5 licence. In particular, we considered that a new entrant would take into account the restrictions on advertising minutage at the same time as the right to appropriate EPG prominence. This was because the right to appropriate EPG prominence and restrictions on advertising minutage both affect the number of advertising impacts available for sale, albeit in different directions – appropriate EPG prominence increasing the number of impacts (via a higher audience share) and the advertising restrictions reducing the number of impacts (via limiting how much advertising can be shown in any hour).

3.75 We invited views on what data or evidence exists to indicate the extent of the impact the COSTA rules could have on the number of advertising impacts a Channel 3 or 5 licence holder can sell (and what revenue impact this might have), compared to a non-PSB alternative. We proposed that to the extent that data or evidence was available, the restrictions on advertising minutage would be taken into account when

[28] http://stakeholders.ofcom.org.uk/binaries/broadcast/Advertising_minutage.pdf

considering the impact of the right to appropriate EPG prominence. However, we invited views on what alternative approaches might be available.

3.76 Two respondents did not think we should take into account the minutage restrictions. ITV said that it did not consider a potential bidder would consider the differential to be of material relevance to the licence valuations. STV said that there was no ground or measurable basis on which to take the minutage restrictions into account.

3.77 In contrast, two other respondents considered that the minutage restrictions should be taken into account. One of these said that a new entrant would take into account the opportunity cost of more restrictive advertising allowances, and attempted to quantify the impact on one of the incumbent licensees if they were permitted to broadcast an average of nine minutes of advertising an hour rather than an average of seven minutes. The respondent said that the incumbent would be able to achieve more commercial impacts, with the range depending on whether or not the effect of a more commercial programme schedule was taken into account. The respondent also attempted to translate these impacts into a revenue effect. The respondent also thought that the impact of the minutage restrictions should be considered separately from the issue of EPG prominence.

3.78 In light of comments received, we will consider the minutage restrictions separately from the right to appropriate EPG prominence. While both of these are capable of affecting the revenue a new entrant could generate from holding the licence, we will separately consider their impact on the licence valuation.

3.79 For the purposes of the valuation, we will include an opportunity cost associated with the minutage rules where this is supported by data or evidence that would allow us to quantify the size of this cost from the point of view of a new entrant bidding for a Channel 3 or Channel 5 licence. In this context, we do not consider that a new entrant would necessarily consider that the opportunity cost would be equal to the benefit (in terms of additional revenue) an incumbent would enjoy if it was able to broadcast an average of nine minutes per hour rather than seven. However, we consider that such a calculation would provide a helpful reference point when considering the size of the opportunity cost applicable to a new entrant.

Higher Ofcom licence fees

3.80 We agree with ITV and Channel 5 that there are a number of additional costs that Channel 3 and 5 licensees incur as a result of holding their licences. One of these is a higher Ofcom licence fee tariff on PSB broadcasters.[29] The Ofcom licence fee for a PSB licence holder is between two and four times higher than for a non-PSB licence holder generating the same amount of revenue. The difference depends on the absolute amount of revenue generated. We will include an estimate of the impact of this higher tariff, from the point of view of a hypothetical bidder, in the licence valuation.

Contributions to the National Television Archive

3.81 Section 185 of the Broadcasting Act 1990 sets out that Channel 3 and Channel 5 licence holders must contribute to the costs of the National Television Archive. We agree with ITV and Channel 5 that such contributions represent an additional cost to

[29] See Table 5 in Ofcom's 2013/14 tariff table: http://www.ofcom.org.uk/files/2013/03/tariff-tables-2013-14.pdf. The Ofcom licence fee applies to the relevant turnover of channels, as defined in Ofcom's document *Statement of Charging Principles*, dated 8 February 2005.

Channel 3 and Channel 5 licence holders and we will include these contributions in the licence valuation.

Channel 3 subtitling targets

3.82 ITV said that Channel 3 licence holders are subject to higher targets for the percentage of programming that is required to carry subtitles[30]. Where Channel 3 licensees provide estimates of these additional subtitling costs in their submissions, we will include them in the licence valuations.

Code of Practice governing commissioning relations with independent producers

3.83 Channel 5 considered that there were additional costs to Channel 3 and Channel 5 licence holders associated with the Code of Practice governing commissioning relations with independent producers ("Code of Practice")[31].

3.84 Channel 5 said that the Code of Practice represents an additional cost to being a PSB licence holder because non-PSB broadcasters are not bound by the same code and have greater flexibility in negotiating with producers. We would expect the outcome of negotiations with producers to reflect the conditions in which those negotiations are made. If, due to the Code of Practice, a PSB broadcaster has less flexibility in negotiating than a non-PSB alternative, and it felt that this represented an additional cost, we would expect this cost to be reflected in the agreed contract (for example via a lower price, or in other contractual conditions). As a result we do not consider that the Code of Practice is likely to represent a significant additional cost to being a PSB broadcaster. However, as set out at paragraph 3.36, when making the determination we will consider any data or evidence presented by licensees in their submissions that demonstrate that the Code of Practice represents an additional cost and that allows us to quantify the amount of the cost.

'Must offer' obligations

3.85 Channel 5 considered that there were additional costs to Channel 3 and Channel 5 licence holders associated with the must offer' obligations in respect of major platforms[32].

3.86 Channel 5 did not elaborate on why the 'must offer' obligations represented an additional cost to holding a Channel 3 or Channel 5 licence. In the 2010 Methodology Statement, we said that "*to the extent that a new entrant would want his service widely distributed, the must offer obligations do not represent an incremental cost*"[33]. We consider that a new entrant is likely to want its channel widely distributed in a non-PSB counterfactual, and as a result we are not persuaded that the 'must offer' obligations would represent a significant additional cost to a new Channel 3 and 5 licence holder. However, as set out in paragraph 3.36, when making the

[30] Ofcom's Code on Television Access Services sets out that most broadcasters are required, from 2014, to subtitle 80% of their output. Channel 3 is required to subtitle 90%. http://stakeholders.ofcom.org.uk/binaries/broadcast/other-codes/ctas.pdf

[31] Section 285 of the Communications Act requires PSBs to have in place Codes of Practice for commissioning from independent producers which have been approved by Ofcom.

[32] Sections 272 and 273 of the Communications Act 2003 came into force on 31 January 2010. These sections set out the "must offer" obligations in relations to networks and satellite services. The purpose of these obligations is to secure that each relevant PSB is offered as available in digital form on every network including satellite, is broadcast or distributed on those networks without charge and is available for reception by as many members of its intended audience as practicable.

[33] 2010 Methodology Statement, paragraph 3.93.

determination we will consider any data or evidence presented by licensees that demonstrate that the 'must offer' obligations represent an additional cost and that allows us to quantify the amount of the cost.

Party Political Broadcasts (PPBs).

3.87 Channel 5 noted that Channel 3 and Channel 5 licence holders are required to transmit PPBs, although it said that the costs of doing so can be easily absorbed within the normal running costs of a broadcaster's business. For this reason, we do not intend to include the costs of broadcasting PPBs in the valuation.

Regulatory oversight costs.

3.88 ITV considered that additional 'regulatory oversight' costs would be incurred by Channel 3 and Channel 5 licence holders by virtue of the number of additional obligations faced compared to a non-PSB broadcaster. We agree that additional staff may be required to manage the regulatory relationship that would not be required in a non-PSB counterfactual, and we will include a reasonable allowance for such costs in the valuation, based on the data or evidence provided by licensees in their submissions. Since we are valuing each Channel 3 licence on a standalone basis, a reasonable allowance for regulatory oversight costs will be included in the valuation of each Channel 3 licence.

Start up costs

3.89 We will also take into account any start up costs that a hypothetical new entrant would incur and which would be associated with the additional costs described in this section. For example, staff employed for regulatory oversight purposes may need to be employed several months prior to launch.

Dealing with uncertainties for the purposes of the review

3.90 Valuation of licences on a forward looking basis involves taking account of a number of uncertainties, including the following:

- Future trends in television advertising revenues and programming costs.
- Future trends in the proportion of homes that are DTT homes (relevant for setting the PQR).
- The regulatory environment, including the long term path of PSB obligations and the implementation of administered incentive pricing (AIP).

3.91 Replicating the outcome of a hypothetical single-round sealed-bid auction adds a further layer of complexity. Neither the exact circumstances of the auction, the identity of bidders, their business plans nor their bidding strategies can be predicted with certainty.

3.92 Ofcom is unable to eliminate these uncertainties. Therefore, in order to fulfil its statutory duty to determine the financial terms applicable to each licence, it is necessary for Ofcom to make a series of assumptions on many issues. Ofcom recognises that there may be alternative approaches to individual elements of the valuation methodology. However, Ofcom believes that, when considered together as part of a coherent methodology, the overall approach provides a fair and reasonable basis for Ofcom to determine the financial terms for each licence.

3.93 As with all such uncertainties, Ofcom will need to form a reasonable view of the way in which such factors should be taken into account in the valuation exercise so as to achieve a fair and reasonable outcome for the licence valuation, consistent with Ofcom's statutory duties.

3.94 Furthermore, in order to determine a value for those elements of the licence which are explicitly modelled, Ofcom may need to project revenues and costs forward.

3.95 Ofcom's view will therefore be informed by a number of sources, including:

- evidence presented by stakeholders, such as forward looking financial projections;
- evidence to be provided by stakeholders to Ofcom, including consideration of the relevant part of pre-existing business plans and forward looking projections;
- market reports and externally generated analysis of cost, revenue and technological trends;
- public policy developments and statements; and
- findings from Ofcom's work and research in relevant and related fields.

3.96 In the consultation, we asked stakeholders whether they agreed with our approach to dealing with uncertainties.

3.97 In general, respondents recognised that valuing a licence over a 10 year period is inherently subject to significant uncertainty.

3.98 ITV said that, given this uncertainty, a hypothetical bidder would not be over optimistic in its assumptions and would avoid being bullish about developments where the evidence is ambiguous. UTV outlined several factors with regards to the uncertainties of the future market place which, in their view, are relevant to the valuation of the licence (for example, factors related to the geography and economics particular to the licence area).

3.99 We consider that it is appropriate for Ofcom to take into account a range of possible outcomes before judging what would be a reasonable overall assessment. However, Ofcom will be cautious about incorporating new sources of income or expenditure that depend upon uncertain external factors, and we will consider carefully what a new entrant would reasonably incorporate into their forward looking assessment when considering a bid for the licence.

3.100 Since our methodology requires that each licence is valued individually, we consider that this offers sufficient scope to take account of licence-specific factors. Consideration of the forward looking expectations of existing licensees via use of their long term business plans should also help ensure that licence-specific factors are reflected in the licence valuations.

3.101 In the consultation we also considered the particular uncertainties identified in paragraph 3.90. These are summarised below, along with views from respondents.

Future trends in television advertising revenues and programming costs

3.102 For the first three years of the renewed licence period (up to the end of 2017) we proposed to put particular weight on licensees' forward looking financial projections, since existing five year plans will run until the end of 2017. For the remainder of the renewed licence period we sought views from stakeholders on how advertising revenues and programming costs could be forecast.

3.103 Advertising revenue forecasts potentially have two roles in the determination process. First, they may feed into our assessment of a number of rights and obligations associated with the Channel 3 and Channel 5 licences; for example the right to appropriate EPG prominence and revenue foregone as a result of PSB programming obligations. Second, if Ofcom sets a positive PQR, this will be applied to revenues associated with DTT, which will in turn depend, in part, on total advertising revenues for each licence. Forecasts of programming costs are relevant to the estimate of the opportunity cost of PSB programming.

3.104 No respondent made a suggestion about how advertising revenues and programming costs could be forecast beyond 2017 (Ofcom will put particular weight on licensees' business plans in the period to 2017). ITV thought that a new entrant would assume real terms decline in TV advertising revenue. Channel 5 thought that there was evidence that overall advertising spend tracks GDP, though recognised that there was a question about whether there would be growth in the economy or not over this period. UTV wanted Ofcom to provide future growth rates for advertising.

3.105 Given the lack of long term advertising forecasts specific to each of the Channel 3 and Channel 5 licences, our base case assumption will be that advertising and programming costs stay constant in real terms after 2017. However, we will take into account submissions made by licensees where they adopt a different assumption.

Future trends in the proportion of homes that are DTT homes

3.106 As explained below, any PQR determined by Ofcom will apply to revenues associated with DTT only. Therefore, should Ofcom decide to set a positive PQR, it will be necessary to forecast revenues associated with DTT. This will be done by multiplying total revenue associated with the Channel 3 or Channel 5 licences by the proportion of homes that are DTT homes. We invited views from stakeholders on how the proportion of homes that are DTT homes could be forecast in the period 2015 to 2024.

3.107 ITV and Channel 5 said that their forecasts would be informed by a consultancy company that provides forecasts of DTT penetration to its clients. ITV said it may draw on other forecasts as well, but did not specify which ones. UTV requested that Ofcom provides forecasts of DTT penetration.

3.108 Ofcom will use available information to sense check the forecasts used by licensees in their submissions. Where licensees reference alternative forecasts in their submissions, those forecasts should be provided.

Future costs associated with PSB obligations

3.109 In respect of the future costs associated with public service broadcasting obligations Ofcom said in the consultation that it would take a cautious view about future changes in PSB obligations. However, we proposed to assume that neither the regulator nor licensee will engage in economically irrational behaviour; the valuation will therefore assume that PSB obligations will not be maintained at a level that makes holding the licence no longer commercially viable.

3.110 ITV said that it understood that Ofcom was obliged to set the terms for the licence with obligations as set out at the date of the determination. It said that unless a clear and unambiguous commitment had been made to reduce future PSB obligations, Ofcom should value the licences with the obligations as at the date of the determination held constant.

3.111 The methodology requires that the licences be valued from the perspective of a hypothetical new entrant that is bidding for the licences. We assume that the new entrant would factor into the valuation any information that becomes available up to the point that the bid is finalised. We agree with ITV that in the absence of any information indicating that the value of the rights associated with the licence will reduce significantly in future, a bidder is likely to assume that the PSB obligations set out by Ofcom in its July 2013 Statement will continue for the duration of the licence. This is the assumption we will make for the purposes of the valuation.

Introduction of AIP

3.112 In its 2012/13 annual plan Ofcom said it "w*ill undertake analytical work to enable it to consult on the implementation of administered incentive pricing (AIP) assessing the potential level of fees, the potential impact of these fees on broadcasting output and the appropriate timetable over which they should be introduced*"[34] Ofcom subsequently published a consultation on Spectrum pricing for terrestrial broadcasting on 13 March 2013 ("the broadcast pricing consultation).[35] The broadcast pricing consultation proposed to introduce AIP on broadcasting from around 2020, with smaller cost-based fees applying before then. A consultation on cost-based fees will be published shortly. Ofcom noted in the broadcast pricing consultation that a commitment had been given in 2007 to consider the impact of AIP on broadcasting content (particularly PSB content), and the steps available to mitigate those effects, before applying AIP. However, given the proposal to delay the introduction of AIP until at least 2020, Ofcom has not considered at this stage the potential effect on broadcast content.[36]

3.113 The broadcast pricing consultation provided indicative estimates of the level of AIP that might be applied to DTT multiplexes from 2020. These estimates ranged from £10m to £40m per multiplex per annum.[37] The broadcast pricing consultation also set out a working hypothesis of a phased approach to introducing AIP, so that AIP fees would start at a lower level and increase to the full amount over a five year period from around 2020, although no decisions on this will be taken until nearer the date of introduction.[38] Ofcom also said that when AIP is introduced, it would consider whether there are compelling arguments for differentiating between PSB and non-PSB services.

3.114 In our consultation we said that our methodology would be able to take into account Ofcom's proposals on AIP to the extent that they would affect the valuation that a

[34] http://www.ofcom.org.uk/files/2012/03/Annual_Plan_2012-13.pdf, paragraph 4.23
[35] *Spectrum pricing for terrestrial broadcasting,* 13 March 2013.
http://stakeholders.ofcom.org.uk/binaries/consultations/aip13/summary/aip.pdf
[36] Broadcast pricing Consultation, paragraph 1.30.
[37] Broadcast pricing Consultation, paragraph 5.11.
[38] Broadcast pricing Consultation, paragraph 5.15.

hypothetical new entrant would place on a Channel 3 or Channel 5 licence. We considered that a new entrant would only factor in future AIP fees into its bid to the extent that PSB licence holders and non-PSB licence holders would face different costs as a result of the introduction of AIP (and the entrant was able to quantify that difference). If the new entrant expected that in future both PSB and non-PSB licence holders were likely to face the same level of costs associated with AIP, then we did not consider that it would include any costs associated with AIP in its bid. This was because the introduction of AIP would not give rise to any material incremental cost or benefit associated with holding a Channel 3 or Channel 5 licence, i.e. the level of costs associated with AIP would be effectively the same for holders of PSB licences and non-PSB licences.

3.115 Four respondents provided comments on AIP.

3.116 EE considered that the methodology for valuing the rights associated with the licences was set out in a way that was agnostic to the level of AIPs applied to the multiplexes, i.e., the licence would be valued in the same way irrespective of the level of AIP applied. We do not agree that this is necessarily the case. We consider a new entrant would only be indifferent to the level of AIP for the purposes of valuing the licences insofar as it expected it to be introduced in such a way that the level of costs associated with AIP was the same whether it held a PSB or a non-PSB licence. If the new entrant did not expect the level of costs to be the same for PSB and non-PSB licence holders, it would take this expected difference into account in its valuation.

3.117 Channel 5 did not believe any cost associated with AIP could be sensibly included in the valuation given the large number of uncertainties surrounding its introduction. Channel 5 did not agree, however, that if AIP was introduced for all channels on DTT that it would have no impact on the cost of the licence, or that if a PSB waiver was introduced, this would count as a benefit. The rationale for this view was that the DTT platform is crucial, and any AIP charges that increased the cost of DTT would add directly to the costs of the business. STV expressed a similar view in its response. We do not agree with this view. Under our methodology, a broadcasting cost that could be avoided by holding a PSB licence would be considered an incremental benefit of holding the licence, in the same way as a cost that is only incurred as a result of holding the licence would be considered an incremental cost. While the introduction of AIP would clearly increase the costs of the *business* (in the same way as an increase in wages or corporation tax would), if the cost could not be avoided by holding a non-PSB licence rather than a PSB licence, we do not consider that it would represent an incremental cost of holding a PSB licence.

3.118 ITV agreed with the principle that the licence valuation should reflect the incremental costs incurred by the licence holder. However, it did not agree that a new entrant would necessarily incur comparable AIP costs whether it held a PSB licence or a non-PSB licence. This is because a Channel 3 licence holder would have to bear its share of the running costs of Multiplex 2 (which it incurs as a result of holding a Channel 3 licence), and these running costs would increase once AIP was applied to multiplexes from 2020.

3.119 We agree with ITV that AIP, if introduced, will be applied to multiplexes, and the holders of Channel 3 licences are obliged to contribute to the running costs of Multiplex 2 by virtue of holding a Channel 3 licence. Therefore, if AIP is introduced, these running costs may increase.

3.120 However, Channel 3 licence holders also benefit from not having to acquire multiplex capacity in the market (we explain how we will take this benefit into account in paragraphs 3.38 to 3.44 above). If the cost of acquiring multiplex capacity increases following the introduction of AIP, and multiplex operators are able to pass on the additional cost in full to channel operators, then the introduction of AIP may have a neutral effect on the valuation of a Channel 3 licence. This is because the benefit of avoiding paying for multiplex capacity has increased (since the market price a Channel 3 operator avoids paying has gone up), but this is offset by the additional costs of operating Multiplex 2. However, we recognise that this outcome only holds true if the multiplex operators are able to pass on the AIP costs to channel operators, and this is likely to depend on a number of factors, such as the availability of capacity and contractual arrangements. We note EE's comment in this regard that "*market rates are determined by the demand for and supply of slots on the muxes, independently of the level of spectrum fees mux operators pay*", which suggests it may be difficult for multiplex operators to pass on the costs of AIP in full.

3.121 Consequently, in respect of Channel 3 licences, when considering the potential impact of AIP on licence valuations we will take into account a number of factors based on the information available at the time of our determination, including: the likelihood of AIP being introduced; its expected level; the expected timing of its introduction; the likelihood that any specific allowances or adjustments may be made to the level, timing or other terms for Channel 3 licence holders; the possible impact AIP may have on videostream pricing; and any other relevant factors.

3.122 The same process does not apply to Channel 5, because the licence holder does not incur costs of running a multiplex by virtue of holding the licence. Instead, it is required to pay a market rate for its reserved DTT capacity. Therefore, whether the new entrant was to pay for DTT capacity through holding a Channel 5 licence or through a non-PSB licence, it would need to pay a market rate. This would be the same whether the market rate reflects the introduction AIP or not beyond 2020, i.e. there is no reason to believe that the market rate for a Channel 5 licence holder would be different to that paid by a non-PSB licence holder following the introduction of AIP.

Setting financial terms

3.123 Ofcom will calculate financial terms that will allow for the recovery of the combined net present value of the rights and obligations associated with the licence. However, as explained above, no guidance is given in the Act as to how Ofcom should set the PQR or indeed the relative sizes of the PQR payments and cash sums.

3.124 In terms of setting the PQR, Ofcom defines qualifying revenue in its 2004 document "Qualifying revenue and multiplex revenue: Statement of Principles and Administrative Arrangements under the Broadcasting Act 1990, the Broadcasting Act 1996 and the Communications Act 2003"[39]. It says "*the service provided on both analogue and digital terrestrial will constitute the licensed service and revenues from provision of the service on both platforms will comprise qualifying revenue. Revenue from the provision of a service on cable and satellite will continue to fall outside the definition of qualifying revenue*".[40] Following completion of digital switchover there are no revenues associated with analogue so any PQR determined by Ofcom will apply to revenues associated with DTT only.

3.125 In terms of the relative sizes of the PQR payments and cash sum, Ofcom said in the 2005 Determination that it "*considered that the PQR should be calculated to recover*

[39] http://stakeholders.ofcom.org.uk/binaries/broadcast/other-codes/qualifying_revenue.pdf
[40] At paragraph 1.10.

as close to 95% of the value of the licence as possible, without exceeding this proportion whilst being consistent with setting the PQR as an integer" and "the level of the cash bid was then set to recover the balance of the value of the licence".[41] Where our review indicates that a licence has significant value we consider that this remains a reasonable basis on which to set the PQR and cash bid. However, where our review indicates that a licence has a small value we may, for administrative convenience, recover the value of the licence solely through the cash bid, with the PQR being set to zero.

3.126 As with the 2005 and 2010 Determinations, if our review indicates that a hypothetical new entrant would not be prepared to make payments as well as deliver PSB programming in return for the rights attached to the licences, we would conclude that the incumbent licence holders could retain their licences in a hypothetical auction for a nominal amount.

Discount rate

3.127 As set out above, our view is that the value of the winning bid in a hypothetical auction can be approximated by the valuation of the second highest bidder and that the second-highest bidder would be an existing television company. In order to be consistent with the proposed circumstances of the hypothetical auction, Ofcom's proposed discount rate is intended to reflect the opportunity cost of investment faced by a hypothetical entrant that is assumed to be an existing television company.

3.128 In the consultation, Ofcom proposed using a real, pre-tax rate of 9.2% (a nominal pre-tax rate of 12.5%), which was meant to reflect the weighted average cost of capital (WACC) of a hypothetical entrant. The calculation was largely based on data and estimates relating to the existing licensees. We asked stakeholders whether they agreed that a real, pre-tax discount rate of 9.2% was appropriate, and if not, what other factors Ofcom should take into consideration.

3.129 STV and one other respondent agreed that the discount rate was appropriate, while ITV and UTV thought it should be higher. We have considered these responses in detail in Annex 1 and have decided to use a real pre-tax rate of 9.1% (equivalent to a nominal pre-tax rate of 12.4%, assuming inflation of 3.0%). This is slightly lower than the discount rate in our consultation document because it takes into account the reduction in corporation tax from 2015 which was announced in March 2013.

Cut-off date

3.130 As in the 2005 and 2010 reviews, Ofcom considers that it is necessary for it to be able to take into account any information relevant to deciding the revised licence payments that is or becomes available up to the date of determination.

[41] 2005 Determination, paragraph 2.12.

Annex 1

Discount rate

Summary

A1.1 Ofcom's view is that the value of the winning bid in a hypothetical auction can be approximated by the valuation of the second-highest bidder and that the second-highest bidder would be an existing television company. In order to be consistent with the assumed circumstances of the hypothetical auction, Ofcom's discount rate is intended to reflect the opportunity cost of investment faced by a hypothetical entrant that is assumed to be an existing television company.

A1.2 Ofcom has previously considered calculating discount rates on a licence-by-licence basis. However, consistent with the approach taken in the 2005 Review and the 2010 Review, we consider that to the extent that there are material differences between licences that may impact the discount rate (e.g. smaller licensees may have a higher proportion of fixed costs), they would be prohibitively difficult to estimate in a robust manner.

A1.3 Ofcom has calculated a real, pre-tax rate of 9.1% (equivalent to a nominal pre-tax rate of 12.4%), which is meant to reflect the weighted average cost of capital (WACC) of a hypothetical entrant. The calculation is based on data and estimates relating to the existing licensees. This is slightly lower than the discount rate in our consultation document because it takes into account the reduction in corporation tax from 2015 which was announced in March 2013.

Introduction

A1.4 The discount rate applied to the forecast cash flows in an NPV analysis should reflect the opportunity cost to all the relevant capital providers, weighted to their relative contribution to the company's total capital base. This is approximated by calculating the firm's Weighted Average Cost of Capital (WACC). The opportunity cost that is borne by a class of investor is equal to the rate of return that investors could expect to earn on other investments of equivalent risk.

A1.5 A number of different asset pricing models exist for calculating the cost of capital. The Capital Asset Pricing Model (CAPM) measures market risk via a single beta coefficient measured relative to a market portfolio. In addition, there are other models, for example, multifactor models which measure market risk using multiple risk coefficients estimated relative to different factors.

A1.6 Ofcom's preferred approach is to use the CAPM. The CAPM has a clear theoretical foundation and its implementation is simple and well established relative to that of other asset pricing models. This results in the continued wide use of the CAPM by the UK's economic regulators, and its wide use amongst practitioners.

A1.7 Under the CAPM the WACC is calculated according to the following formulae:

- WACC = (cost of equity x (1 - gearing)) + cost of debt x gearing;
- gearing = debt / (debt + equity);
- cost of equity = risk free rate + ({equity risk premium} x beta); and

- cost of debt = risk free rate + debt premium

Estimating discount rates

A1.8 Some of the parameters that influence the WACC calculation, specifically gearing ratios, equity betas, and debt premia may vary on a firm-by-firm, and hence potentially on a licence-by-licence, basis. However, Ofcom has decided to apply a single discount rate in its NPV analysis for all of the licences. In theory, it may be desirable to make assumptions regarding the financial/operational leverage and debt premia of generic bidders for each relevant licence. However, in practice, any such assumptions are likely to be difficult to calculate. The most relevant data available to Ofcom to support its calculations relates to some of the existing licensees: ITV, STV and UTV.

A1.9 Data is unavailable on a licence-by-licence basis. Any adjustments made to this data to reflect licence-by-licence variations would be highly subjective. Ofcom has therefore based its analysis on country-wide indicators, erring on the side of conservative (i.e. high) estimates where appropriate in order to reflect any regional or national variations.

A1.10 In our consultation we estimated a single discount rate to be used in the licence valuations, being a real pre-tax WACC of 9.2%. This was based on the parameters explained further below. Two respondents agreed with this estimate.

A1.11 UTV thought that the discount rate used should be at least as high as that used in its statutory accounts. We note the discount rates published by licensees in their statutory accounts but understand that these are pre-tax nominal rates so would be comparable to the pre-tax nominal estimate of 12.5% in the consultation rather than the pre-tax real rate of 9.2%. The discount rates published by ITV plc, UTV plc and STV plc in their 2012 annual reports range from 9.6% to 14.0%. The pre-tax nominal rate proposed in the consultation of 12.5% sits within this range.

A1.12 Other comments received related to specific parameters of the CAPM calculation, and we consider these below.

Risk free rate

A1.13 In the consultation Ofcom proposed to use a 4.3% nominal risk free rate (1.3% real, based on an assumed inflation rate of 3.0%). This was based on estimates of yields on nominal gilts and forward interest rates as a proxy for the real risk free rate.

A1.14 We said that we had estimated a real risk free rate of 1.4% in the WBA charge control statement in July 2011[42]. We updated our analysis of the risk free rate estimates in December 2012[43]. This is shown in the table below.

[42] See paragraph 6.50 of the WBA charge control statement: http://stakeholders.ofcom.org.uk/binaries/consultations/823069/statement/statement.pdf

[43] For the purposes of the Business Connectivity Market Review Statement, 28 March 2013. See Annex 14, paragraphs A14.63 to A14.71. http://stakeholders.ofcom.org.uk/binaries/consultations/business-connectivity/statement/annexes8-17.pdf

Table A1.1 Average yields on five and ten year gilts (real terms)

Average period	Ten year gilts (%)	Five year gilts (%)
6 December 2012	-0.7	-1.4
1 month	-0.6	-1.4
3 months	-0.6	-1.4
1 year	-0.2	-1.0
3 years	0.1	-0.7
5 years	0.6	0.2
10 years	1.2	1.0

Source: Ofcom based on Bank of England on 6 December 2012

A1.15 We said that the average yields on both five and ten year gilts had continued to fall, however we believed that a degree of caution was required when interpreting the current data, because of the high level of uncertainty which had persisted. In addition, the effects of quantitative easing and a flight to safety still remained.

A1.16 Although we noted that estimates of the real risk free rate had continued to fall, we also considered the implications of this for the equity risk premium (ERP). If we believe that the risk free rate has fallen because equities have become more risky or because investors are becoming more risk averse, then we would expect an increase in the ERP to reflect this.

A1.17 We consider that there is a relationship between the risk free rate and the ERP. Therefore, we were reluctant to make a significant change in the risk-free rate without considering an increase in the ERP, something which is not supported by current evidence.

A1.18 We therefore reduced our estimate of the risk free rate from 1.4% to 1.3% to reflect the continued downward trend in estimates of the risk free rate.

A1.19 For the purposes of calculating a real WACC, we assumed an inflation rate of 3%, which was in line with the Treasury's November 2012 medium term RPI forecasts.[44] We said that the inflation assumption in the cash flow modelling to assess the value of each licence should be consistent with this figure.

A1.20 No respondents commented on the risk free rate or on the assumed rate of inflation. We have therefore decided to calculate the pre-tax real WACC using a risk free rate of 1.3% and an inflation assumption of 3.0%.[45]

Equity risk premium

A1.21 The equity risk premium is the difference between the overall return on equities and the nominal risk free rate. Its value in the UK reflects the risk of investing in UK equities generally. Ofcom proposes to use a value of 5% for this calculation.

A1.22 This reflects recent work by Professors Dimson, Marsh and Staunton (DMS) from the London Business School, which tracks the average premium that investors have

[44] http://www.hm-treasury.gov.uk/d/201211forcomp.pdf, page 18.
[45] We note that the HM Treasury medium term inflation forecasts show forecast RPI above 3%; however the impact on the real risk free rate is negligible.

earned from equities (as opposed to bonds or gilts) over time.[46] The latest historical ERP evidence reported by DMS, in the 2013 sourcebook, showed that the historic premium of equities over bonds for the UK was 5%. In addition, in the 2013 report, DMS suggested a long-run arithmetic mean premium for the world index of around 4.5%-5%.

A1.23 ITV suggested that a figure of 5.8% should be used rather than 5%. The figure of 5.8% proposed by ITV was based on analysis published by Professor Damodaran of Stern Business School at New York University.

A1.24 In the Business Connectivity Market Review Statement ("BCMR Statement") published on 28 March 2013, Ofcom considered a number of UK-specific indicators when evaluating the appropriate ERP to use when estimating a WACC. This included consideration of the latest historical evidence reported by DMS, survey evidence and evidence on the volatility of the FTSE All Share index.[47] We understand that Professor Damodaran's estimate of 5.8% is based on US data, specifically the S&P500, and assumes that this is a reasonable proxy for other mature markets such as the UK.

A1.25 We consider that UK indicators of the type considered in the BCMR Statement are more relevant to the WACC calculation that we are considering here because we are considering the discount factor that is applicable to a bidder for a UK-based Channel 3 or Channel 5 licence. We have therefore decided to adopt an ERP estimate of 5%, consistent with that used in the BCMR Statement.

Equity beta

A1.26 The value of a company's equity beta measures the movements in returns (as measured by the sum of dividends and capital appreciation) from its shares relative to the movement in the return from the equity market as a whole. For a detailed discussion of issues relating to beta estimation, see, for example, *Issues in Beta Estimation for UK Mobile Operators, The Brattle Group, July 2002*[48].

A1.27 A number of beta estimates are shown below based on unadjusted two year daily rates[49] against the FTSE All share index.

Table A1.2: Equity betas for television broadcasters

	Dec-10	Jun-11	Dec-11	Jun-12	Dec-12	Jun-13
ITV	1.27	1.34	1.33	1.35	1.40	1.38
STV	0.45	0.70	0.51	0.33	0.24	0.27
UTV	0.69	0.40	0.49	0.48	0.46	0.37
BSkyB	0.62	0.52	0.61	0.50	0.59	0.63

A1.28 In the consultation, we were inclined to give most weight to ITV's equity beta, which had been in a range of 1.27-1.40 in the period to December 2012. This is because ITV's shares are relatively liquid and provide a reasonably robust beta estimate,

[46] Dimson, Marsh and Staunton "Credit Suisse Global Investment Returns Sourcebook 2013" Credit Suisse Research Institute. See paragraph 6.79-6.96 WBA Statement for further detail which refers to the 2012 Sourcebook.
[47] BCMR Statement, paragraphs A14.46 to A14.53.
[48] http://www.ofcom.org.uk/telecoms/ioi/g_a_regime/sce/ori/beta/
[49] Estimates are taken at the end of the month.

whereas those of UTV and STV are more thinly traded, and therefore may be an unreliable estimator of those companies' equity betas. We also considered that, as a free to air broadcaster, the equity beta of ITV was more relevant to the Channel 3 and 5 licences for which we are required to determine financial terms than the BSkyB equity beta.

A1.29 We proposed to adopt a point estimate of 1.40 from the above range, giving more weight to the most recent observation of ITV's equity beta.[50] No stakeholders commented on our estimate of the equity beta. However, two respondents considered that Ofcom should include a small company premium in the cost of equity of between 1% and 1.5%. This would represent the additional equity return required by investors to compensate for the additional risk attaching to investments in smaller companies compared to larger companies.

A1.30 If the cost of equity for smaller firms is expected to be higher, for example, as a result of proportionately smaller profits (higher operational gearing) and hence greater exposure to risks, including systematic risks, then this would be taken account of in the CAPM framework by small firms tending to have a higher equity beta than large firms (where such beta estimates are available).Therefore no adjustment would be required to ITV's beta if the bidder were a comparable size to ITV plc.

A1.31 In estimating a beta where no market data is available, firm size might be a qualitative factor to take into account in estimating a WACC. However, as noted by the CC in its Bristol Water Determination, the UK evidence to support a higher cost of capital for small firms is limited:

> *"We do not consider that there is robust UK empirical evidence of small firms being more risky and hence having a higher cost of capital..."*[51]

A1.32 If Ofcom believed that the second highest bidder would be a smaller company than ITV plc (the company against which we have benchmarked the equity beta), then it might be reasonable to consider whether an uplift to the equity beta used in the CAPM calculation would be appropriate. We do not, however, consider that this would necessarily be the case, and in any event, we are not convinced that there is sufficient evidence to support such an adjustment. Furthermore, we note that a beta of 1.40 is higher than the beta of ITV plc's peers STV and UTV, and is the highest rate observed in Table A1.2.

A1.33 Since the most recent equity beta for ITV plc is in line with our consultation estimate, we have decided to use an equity beta of 1.40 in our calculation of the WACC.

Optimal gearing

A1.34 Under the standard Capital Asset Pricing Model a firm can potentially lower its overall cost of capital by increasing its gearing. This is because debt is generally cheaper than equity as a result of tax advantages to debt.

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[50] We note that a number of European broadcasters currently have betas close to 1. For example, the two year daily unadjusted beta as at 30 June 2013 for Metropole television was 0.84, for TF1 it was 0.97 and Telecinco 1.08.

[51] Paragraph 131, Annex N, Bristol Water Determination, 2010 http://www.competition-commission.org.uk/assets/competitioncommission/docs/pdf/non-inquiry/rep_pub/reports/2010/fulltext/558_appendices.pdf

A1.35 Our approach to gearing is to assume an optimal level of gearing, which is that at which the cost of capital is minimised and the value of the firm is maximised. Since the cost of debt is lower than the cost of equity, this suggests that the optimal rate would favour debt financing. However, if the level of debt gets too high the risk of financial distress increases very quickly, and equity investors recognise that their claim on the assets of a firm in financial distress comes after the claims of debt holders. Therefore, equity holders will be wary of high levels of gearing, particularly in firms where there are limited fixed assets (which could be liquidated in the event of distress).

A1.36 We would expect investors in a Channel 3 or Channel 5 licence, which would have relatively few assets to sell in the event of financial distress, to want lower levels of gearing than those of a company like BT, where substantial valuable fixed asset investments might help to insulate investors from the risk of losing their investment.

A1.37 In the 2010 Review, we used an optimal gearing level of 30%. This was estimated on the basis that investors should want a gearing rate that maximises the benefit from cheaper debt financing, but without jeopardising the financial viability of the firm. This was not dissimilar to ITV's average gearing over the two years to June 2009.

A1.38 More recent estimates of ITV's gearing show that it has fallen substantially. However, for the reasons set out in the 2010 Review, we proposed in the consultation to continue to use an optimal gearing level of 30% to calculate the WACC for a hypothetical operator. No respondents commented on this proposal and we have decided to use a gearing ratio of 30% in our WACC calculation.

A1.39 For information, our estimates of ITV plc's recent gearing levels are show below:

Table A1.3: ITV plc's recent gearing levels

	Dec 2009	Dec 2010	Dec 2011	Dec 2012	Simple average
Net debt £m	858	418	120	(51)	
Market cap	2,036	2,724	2,650	4,115	
Gearing	29.6%	13.3%	4.3%	(1.3%)	15.8%

Debt premium

A1.40 The cost of corporate debt is made up of a risk free component and a company specific risk premium. In the consultation we said that ITV's recently issued debt maturing in 2017 has traded at around 3.5%-4.5% above equivalent government gilts over the past 6 months, while the same figure for Sky's 2017 debt is around 1.5-1.75%.

A1.41 We note that yields on both ITV's and Sky's traded debt over and above benchmark yields fell during the period from consultation to this statement, but began to recover in June 2013.

A1.42 For the purposes of a hypothetical new entrant, Ofcom proposed using a debt premium figure of 4%; the mid-point of ITV's recently issued debt. This is because we consider that, as a free to air broadcaster, the debt premium of ITV is more relevant to the Channel 3 and 5 licences for which we are required to determine financial terms. No respondent commented on the debt premium figures and we have decided to use a debt premium figure of 4% in our WACC calculation.

Corporate tax rate

A1.43 In the consultation we assumed a corporate tax rate of 21%. In the 2013 Budget the Chancellor announced that the corporate tax rate will be 20% from 1 April 2015 so we have updated our WACC estimate accordingly.

Conclusion

A1.44 In the consultation we estimated a single discount rate to be used in the licence valuations, being a real pre-tax WACC of 9.2%, equivalent to a nominal pre-tax rate of 12.5%. The only parameter we have changed is the corporate tax rate from 21% to 20%, giving a real pre-tax WACC of 9.1%, or a nominal pre-tax WACC of 12.4%.

A1.45 A summary of the components of the WACC calculation is as follows:

Table A1.4: WACC calculation

Variable	Statement
Inflation assumption	3.0%
Nominal risk free rate	4.3%
Equity risk premium	5.0%
Equity beta	1.40
Cost of equity (nominal, post-tax)	11.3%
Debt premium	4.0%
Cost of debt (nominal, pre-tax)	8.3%
Corporate tax rate	20.0%
Cost of debt (nominal, post-tax)	6.6%
Gearing	30.0%
WACC (nominal, post-tax)	9.9%
WACC (nominal, pre-tax)	12.4%
WACC (real, pre-tax)	9.1%