Copyright Board Canada



Commission du droit d'auteur Canada

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Citation SODRAC 2003 Inc. v CBC, 2020 CB 001

Members The Honourable Robert A. Blair, Q.C. Mr. Claude Majeau Mr. J. Nelson Landry

Application to Fix Royalty Rates for the Reproduction of Musical Works in the Repertoire of the Society for Reproduction Rights of Authors, Composers and Publishers in Canada Inc. and SODRAC 2003 Inc. by Canadian Broadcast Corporation

[Redetermination (2008-2012)]

Reasons for decision

I. INTRODUCTION

[1] On November 26, 2015, the Supreme Court of Canada remitted to the Copyright Board of Canada (the "Board") for redetermination a portion of the Licence that the Board had set for the use by Canadian Broadcast Corporation (CBC) of the repertoire administered by SODRAC 2003 Inc. and the Society for Reproduction Rights of Authors, Composers and Publishers in Canada Inc. (collectively SODRAC) for the 2008-2012 period.¹ The Court left the Board's Licence in place for other aspects of CBC's activities, but ordered the Board to redetermine the fees it had set for "broadcast-incidental copies" (BICs) made by CBC in the course of preparing and preserving its broadcasts on conventional and Internet television.

[2] The Copyright Board dealt with the redetermination of the broadcast-incidental copying issues as part of a joint hearing held in September 2017. The other part of the joint hearing dealt with an application by SODRAC to set licences authorizing CBC to use the works in SODRAC's repertoire for production and broadcasting purposes for the period 2012-2018.

[3] These reasons relate only to the redetermination.

¹ Canadian Broadcasting Corp. v SODRAC 2003 Inc., 2015 SCC 57, [2015] 3 S.C.R. 615. [CBC v SODRAC]

[4] For the reasons that follow, we fix the Licence fees for the use of television BICs for the period 2008- 2012 at a flat rate of \$396,666 per year. In doing so, we have adopted a historical model based on the initial 1992 Agreement entered into between SODRAC and CBC, adjusted for various factors as explained below.

The rate for Internet television BICs is fixed at a top-up of 4 per cent over the television rate -a relationship to which the Parties have agreed.

II. BACKGROUND

[5] CBC, the Canadian public broadcaster, makes, for the purpose of its television, radio and Internet broadcasting activities, different types of copies of musical works protected by copyright, including BICs. The latter are essentially copies for internal use, designed to facilitate the actual broadcasting process and to preserve the work in the broadcaster's archives. Since the beginning of the 21st century, this process relies on digital technology and digital file-based workflows, which naturally involve making multiple copies.

[6] SODRAC, a collective society administrating the right to reproduce a portion of the works used by CBC in its programming, asked the Copyright Board to set the royalties for the authorization to make copies from November 14, 2008, to March 31, 2012.

[7] Until then, relations between SODRAC and CBC had been governed by agreements, particularly, one executed in 1992, which permitted the use of SODRAC's repertoire in radio and television programming and for certain incidental purposes. At the time, the technology did not rely on computers, yet it also involved "broadcast-incidental copies" for internal use, described back then as "ephemeral copies".

[8] The Copyright Board set the television broadcast-incidental copy royalty at 31.25 per cent of the royalties CBC pays to the Society of Composers, Authors and Music Publishers of Canada (SOCAN) to license performance rights. This 1:3.2 ratio was also used in several copyright tariffs setting the relative values of broadcasting-related copying and performance royalties in the commercial radio context. The Board in this case found the ratio to be equally applicable to the television context. Royalties for Internet television incidental copies were set at a 4 per cent top-up.²

[9] CBC applied for judicial review of the licence fee, and, ultimately, a majority of the Supreme Court held that the valuation method used by the Copyright Board to determine the royalty for broadcast- incidental copying was inconsistent with the principle of technological neutrality

² Applications to fix royalties for a licence and its related terms and conditions (SODRAC v. CBC/SRC), 2008-2012 (2 November 2012) Copyright Board. [2012 Decision]

because there was no comparison of the value contributed by the copyright-protected reproductions as between CBC's prior technology and its new digital technology. (*CBC* v SODRAC at paras 73, 81 and 86)

[10] As the Court determined, the Copyright Board must also have regard to factors that it considers relevant in striking a balance between the rights of users and rights holders. Relevant factors will include, but are not limited to, the risks taken by the user, the extent of the investment the user made in the new technology, and the nature of the copyright-protected works' use in the new technology. The Board must assess the respective contributions of, on the one hand, the risks taken by the user and the investment made by the user, and on the other hand, the reproductions of the copyright-protected works, to the value enjoyed by the user. (*CBC* v *SODRAC* at para 75) These considerations bear on the principle of "balance".

[11] Having reviewed the evidence and the Parties' arguments, we find that digital technology provides added benefits compared to analog technology and that those benefits cannot accrue without using SODRAC's repertoire. We also find, on the other hand, that CBC invested in this enhanced technology and bore associated risks. We finally confirm that the copies at hand are incidental in nature. The fees for conventional television BICs reflect these findings for the reasons set out below.

III. THE POSITIONS OF THE PARTIES

[12] It is SODRAC's position that the 1:3.2 ratio is still usable, provided that the principles of balance and technological neutrality are respected.

[13] SODRAC argued that the evidence indicates that, during the technological transition from analog to digital from 1992 to 2008, there was (i) an increase in the benefits linked to broadcast-incidental copies; (ii) a decrease in capital investments; and (iii) a minor risk factor. Furthermore, SODRAC submitted that broadcast-incidental copies are, despite their name, essential to the broadcasting process. However, in SODRAC's view, applying the two principles would not lead to an amount of royalties or even to a method for calculating it. SODRAC also recognized that it is difficult to quantify the added benefits due to digital reproduction technologies.³ Nevertheless, using SOCAN's rate-based ratio to set royalties would comply with the Supreme Court's directions, for several reasons.

[14] First, the 1:3.2 ratio allows the Board to apply the two principles in a reasonable and consistent manner using its experience and expertise, the ratios having been used to establish several royalty rates, in several industries, for years.

³ Exhibit SODRAC-1, *Statement of Case of SODRAC (2008-2012 Redetermination)* at paras 132(f) and 133.

[15] Second, the 1:3.2 ratio would take into account the principle of balance, if it is clearly accepted in the commercial broadcasting industry. CBC itself included the 1:3.2 ratio in its agreements with the collective societies responsible for granting licences for the reproduction of their repertoire. A price based on the 1:3.2 ratio that results from market negotiations in the relevant reference market is a clear indicator of a balance between users and rights holders.

[16] Likewise, the ratio would respect the principle of technological neutrality in that users of the same reproduction technology are treated equally. Indeed, since (i) the ratio is used both in commercial radio and by CBC; and (ii) radio and television use the same digital technology, the ratio would apply to television in a technologically neutral manner.

[17] In conclusion, the 1:3.2 ratio would make it possible to set royalties that take into account the value generated by digital reproduction technology and the increase in value of the copies compared with analog.

[18] By contrast, CBC considers that SODRAC has not demonstrated that the 1:3.2 ratio approach resulting from the Board's decisions on commercial radio complies with the principles of balance and technological neutrality. It refutes the hypotheses put forward by SODRAC in support of this method.

[19] In terms of value to the user, CBC argued that SODRAC has failed to demonstrate that BICs have economic value independent of other copies made by CBC. The principle of balance requires that rights holders demonstrate a causal link between the rights they control and the royalties they claim. Rights holders can only demand payment up to the contribution of their rights to the value from which the user benefits. The value generated by users' own actions or by their own investments eludes rights holders. If no causal link is established between the copyright and the added value that users derive from digital technology, then no value can be attributed to the copyright.

[20] CBC also argued that it has made extensive investments in digital technology and borne inherent risks in doing so.

[21] In terms of comparing benefits under old and new technology, CBC claimed that benefits, if any, are not different from one technology to another: CBC's activities remain functionally equivalent to those undertaken in 1992 and no new value has been created through the digital reproduction of works protected by copyright. Consequently, no increase in royalties is justified in the present case.

[22] Even if broadcast-incidental copies have an independent economic value (which is disputed), CBC submitted that the value cannot be established without taking into account the other royalties paid under the reproduction right, in this case the royalties for the right to synchronize music and images when creating audiovisual content for conventional and Internet

television programming. The hypothesis is that under economic theory, inputs (authorization to synchronize and to make incidental copies) that are both necessary for a certain output (broadcasting) must be accounted for and priced jointly.

[23] Using the CBC-SODRAC 1992 Agreement, which set a price for all reproductions made by CBC, and adjusting it to project its value into 2008-2012, CBC observed that the updated total value has already been compensated for through the synchronization licence fees. As a result, only a nominal amount is owed for BICs.

IV. ANALYSIS

[24] The framework for our analysis, as set out in *CBC v SODRAC*, involves two overarching propositions.

[25] First, the Board is to compare the value that BICs contribute when used in CBC's digital technology with the value that BICs contribute when used in CBC's analog technology (*CBC v* SODRAC at para 86).

[26] In this respect, added value from digital BICs "will imply a larger royalty" and no added value will imply that royalties for BICs remain the same as under analog technology. Added value may stem from functional differences or internal efficiencies, which can be assessed from a number of perspectives. For example, improved or more efficient broadcasting processes can be measured in terms of cost reductions, time saving or limiting of losses; the number of BICs is irrelevant and the benefits of BICs are not proportional to the number of copies made; BICs do not compete with the musical work or affect the market of the musical work. (paras 79, 84 and 85)

[27] Secondly, the Board is to take into account the relative contributions of the reproductions and the users' investment and risk in providing the new technology (para 86). In short, it is to identify factors to strike a balance between the interests of CBC and SODRAC: the principle of "balance".

[28] Balancing factors will include – but are not limited to – the extent of the investment CBC made in the new technology, the risk taken by CBC, and the nature of the use of the works in the new technology (para 75).

[29] In addition, while addressing these overarching propositions the Court observed that, where the financial risks of investing in and implementing new technology were undertaken by CBC and the use of the reproductions of copyright-protected works was incidental, the balance principle would imply relatively low licence fees to the copyright holders. The Court did not explain what it meant by "relatively low" and did not have a record dealing with that notion. It did note that it will never be the case that, because a user makes a significant investment in

technology or assumes substantial risk, royalties for the rights holders will amount to zero. (paras 75 and 77)

A. HOW DO DIGITAL AND ANALOG TECHNOLOGY GAINS COMPARE?

[30] Under analog technology, the Supreme Court of Canada described copies made to facilitate the broadcasting process as "highly useful": *Bishop v Stevens*, [1990] 2 S.C.R. 467 at 483 [*Bishop*]; such copies ensured the quality of broadcasts, across five different time zones, and saved costs when programs were rebroadcast: *Bishop* at 480.

[31] Technologically speaking, it is no secret that the digitization of tools for managing and processing information has overtaken analog technology. A key difference is the increased centralization and automation of the tasks necessary for economic activity in many sectors flowing from the exponential acceleration of information processing speed and digital information storage capacities. In the context of television broadcasting, part of this information consists of musical works.

[32] A brief reminder of how the various digital copies fit into the broadcasting process is helpful here.

[33] Once CBC is in possession of the master copy of a program, whether it has been produced in-house or by an independent producer, the master copy is uploaded into CBC's digital contentmanagement system, a practice that has become widespread among broadcasters in recent years. Digital systems involve the storage of copies as electronic files on hard drives, while older analog systems stored copies on physical tapes. CBC makes use of its digital, contentmanagement system to perform a number of functions that help prepare a program for broadcast.

[34] These processes result in the creation of several copies including BICs. BICs are made for several purposes, such as to reformat the master copy to suit CBC's technical requirements, or to edit the copy for timing, language or closed-captioning purposes. One or more additional copies may also be made to allow for screening of the program by various teams within CBC before broadcast.

[35] SODRAC adduced a technical report prepared by Michael Murphy, a full professor at Ryerson University, comparing technologies deployed in 1992 vis-à-vis the 2008-2012 period, in terms of functional and efficiency differences.⁴

[36] The technical report showed significant changes in production and distribution between 1992 and 2008-2012, which intensified as analog technology was replaced. The fundamental

⁴ Exhibit SODRAC-4.

change throughout this period was the abandonment of the use of analog tape-related equipment in the processes, in favour of digital media, digital video servers, digital storage systems ("Content Storage Management"), and file- based workflows.⁵

[37] Dr. Murphy provided the definitions that he, as a technical expert, has adopted for the terms "functional differences" and "internal efficiencies" used by the Supreme Court. After describing in detail these differences and efficiencies, he concluded that there were indeed significant technical "functional differences" as well as numerous "internal efficiencies" when comparing the digital technologies deployed during the 2008-2012 period with the analog technologies deployed in 1992.

[38] Functional differences emerged, including better broadcast quality (HD), greater centralization of resources, faster time-to-air, and the ability to reach audiences anywhere, anytime and in different ways using new Internet and mobility services.

[39] In Dr. Murphy's opinion, "revolutionary" was the appropriate word to describe the transition to file- based workflow.⁶ The use of digital technology and the use of digital copies on servers has been at the centre of this revolution allowing various efficiencies such as savings in terms of staff reductions, maintenance, and operating costs, as well as increased productivity and increased revenue streams.⁷

[40] SODRAC also adduced a report prepared by economists Marcel Boyer, professor emeritus of Economic Sciences at the *Université de Montréal* and associate researcher of the Department of Economics at the *École Polytechnique de Paris*, and Pierre-Yves Crémieux, president of the *Groupe d'analyse* and associate professor at the *Université du Québec à Montréal*, analyzing the economic factors relevant to the implementation of the two principles referred to by the Supreme Court.

[41] These experts reviewed cost-benefit analysis conducted by CBC in terms of various business cases involving digital technology. In their opinion, the business cases describe the benefits associated with the new copy-dependent technology in terms of savings in costs, jobs and time but while some are quantified, most are described in qualitative terms only.⁸

[42] Also acknowledging the conclusions reached by Dr. Murphy in terms of processes yielding efficiencies and other added benefits associated with digital technology compared to analog

⁵ Exhibit SODRAC-4 at para 53: "an end-to-end workflow, from ingest to playout, where digital media is contained in files (unlike digital videotape which only records media digitally, but not as a file)".

⁶ See part of Exhibit SODRAC-4 at p 21 and Appendix D: Peggy Dau, "Implementing File-Based Workflows" (Grass Valley White paper 2011).

⁷ Exhibit SODRAC-4 at para 125.

⁸ Exhibit SODRAC-27 at para 96ff.

systems, the economists expressed the view that it is not possible to quantify the "surplus" or added benefit due to digital technologies.⁹

[43] We accept this evidence, and CBC's own perspective is consistent with it. For example, CBC explains that it chose to "embrace File-based Workflow throughout the Corporation's Television and Digital operations in the interest of increasing economic efficiency, making content available across a variety of platforms, as well as simplifying its distribution and archiving".¹⁰

[44] Indeed, in its 2007-2008 Annual Report (Vol. 1), CBC reported that it was "generating efficiencies of \$82 million annually through streamlined business processes, the introduction of digital and satellite technologies and more cost-effective content distribution systems, and better use of our real estate portfolio."¹¹ CBC was asked in this proceeding to provide a breakdown of those efficiencies and submitted what is Exhibit SODRAC-24 (A023) in response. In that document, it described the expenses and the savings associated with a list of projects and showed that it would be able to recoup its expenses in approximately three years. Some of those savings were directly related to digital technology.¹²

[45] In spite of this, CBC argued that there is no causal link between the copyright-protected works and the added value CBC has obtained from its investment in digital technology; and, even if there were, that the link relates to the public performance rights managed by SOCAN, not SODRAC or, at the very least, the value of the BICs is more than compensated for in SODRAC's existing synchronization licence.

[46] We do not accept this argument. Drs. Boyer and Crémieux convincingly explained the obvious link between the use of SODRAC's repertoire and the added value obtained by CBC through the making of BICs. While they and SODRAC were unable to establish in which proportion the value to the user stems directly and exclusively from interaction with its repertoire *per se*, it defies credibility to claim (as CBC did) that none of the technological benefits and improvements interact with SODRAC's repertoire.

[47] The Supreme Court has made it clear that incidental copying is infringing if carried out without authorization: See *CBC v SODRAC* at para 16, confirming its decision in *Bishop* where it held that reproductions made to facilitate broadcasting (i.e. BICs) need to be authorized.

⁹ Exhibit SODRAC-27 at para 121.

¹⁰ Exhibit SODRAC-5A, "File-based Workflow", SYNC: Issue 2 – 2012 at p 7.

¹¹ https://site-cbc.radio-canada.ca/documents/impact-and-accountability/finances/2007-2008-ar-p1.pdf at p 39.

¹² Exhibit SODRAC-27 at para 41.

[48] Under current conditions, without BICs containing SODRAC's repertoire, CBC would not be able to carry out its broadcasting activities effectively. This would still hold true where CBC has the authorization to synchronize SODRAC's repertoire or where SODRAC has been compensated for acts of synchronization carried out by third parties. As the Federal Court of Appeal noted in *Bishop v Stevens* (1987),¹³ "[i]f the appellant recorded Bishop's work, it did so because it was in its interest to do so. It thereby ensured that its broadcasts would be of better quality and could later be rebroadcast more cheaply". As SODRAC's evidence shows, today's benefits far more exceed these.

[49] In the present circumstances, the *CBC v SODRAC* framework calls for increased royalties. We now turn to the other factors related to investment and risk.

B. WHAT WERE THE FINANCIAL RISKS OF INVESTING IN AND IMPLEMENTING NEW TECHNOLOGY?

[50] The second step in the analysis is to assess and balance the "contributions of the risks taken by the user and the investment made by the user" or "the financial risks of investing in and implementing new technology"¹⁴ in relation to the foregoing contributions made by the new technology.

[51] SODRAC has assessed the risk from the perspective of a user who does not convert its analog infrastructure to digital. The risk so identified is the risk of running obsolete technology and not being able to maintain its market position in the broadcasting sector. This is the risk of "inaction".¹⁵

[52] While not investing in digital technology may carry a high risk in that sense, we do not believe this is the point made by the majority of the Court. Rather, it was directing us to consider the more granular link between cost and risk, and to ensure that any copyright fee in relation to new reproduction technology is not so high that it acts as a deterrent to investing in that technology. (See *CBC v SODRAC* at para 76)

[53] From that perspective, while inaction may have been risky, it does not follow that investing in copy- dependent technology was risk-free from a financial viewpoint: Returns on investment are not guaranteed. There is an evident link between costs and risks. Importantly, the assessment

¹³ 80 N.R. 302, 18 C.P.R. (3d) 257, 16 C.I.P.R. 243.

¹⁴ *CBC v SODRAC* at para 75.

¹⁵ Exhibit SODRAC-4, *Digital Broadcast Technology Adoption at CBC 1992-2012 and Appendix A to* D, by Dr. Michael J. Murphy, March 9, 2017, at para 127; Exhibit SODRAC-27, *Economic perspective on the Re-examination of licence fees payable for Broadcast-incidental Copies for television and Internet*, Marcel Boyer, Pierre-Yves Crémieux, Analysis Group, March 23, 2017, at para 77.

of such risk must not be made with hindsight. Instead, the Supreme Court requires us to assess that risk from the perspective that existed before any investment is made.

[54] In this respect, we agree with CBC that SODRAC has underestimated the investments in the digital system rolled out by CBC and the concurrent risks associated with that investment.

[55] SODRAC relied very heavily on CBC's business cases to measure the extent of CBC's investment for these purposes. However, CBC has persuaded us that not all technology-related costs are captured in a business case because of CBC's internal accounting threshold for information technology (IT) hardware. IT items below that threshold may therefore not appear in a business case, yet, in the aggregate, they represent significant investments. We accept CBC's evidence, as well, that the business cases focus on capital investments whereas IT costs are increasingly operational in nature (e.g., cloud infrastructure; software-as-a-service; storage; multiple format compatibility and distribution management; troubleshooting; digitization costs; and technical personnel).

[56] In addition, the business cases filed in support of SODRAC's risk analysis span from 2006 to 2012, whereas CBC had been making investments in digital technology since the mid-1990s.¹⁶ CBC rightly points out that SODRAC's experts did not account for the significant risks that CBC had to incur during its initial transition from analog to digital broadcasting technologies, a period not covered by the business cases.¹⁷

[57] There was a debate between the Parties about the additional evidence tendered by CBC in relation to the business cases, which had been provided to SODRAC as part of the interrogatories process. SODRAC rightly points out that it had asked, in that process, for financial and economic documents related to CBC's acquisition of technology for use in radio/television/Internet broadcasting, and that CBC had assured SODRAC that it had "more than enough information for the 2008-2012 file."¹⁸ As a result, SODRAC submitted that CBC should not be able to take advantage of SODRAC's heavy reliance on the business cases if CBC did not communicate other available and relevant information.

¹⁶ Exhibit SODRAC-6A, *Report on Contemporary Technology*, by Dr. Michael J. Murphy, Feb. 1st, 2010, at paras 9, 11, 25, 30, 61; Exhibit SODRAC-6A, Appendix D: "CBC/Radio Canada's Move to Centracasting"; Exhibit SODRAC-4, *Digital Broadcast Technology Adoption at CBC 1992-2012 and Appendix A to D*, by Dr. Michael J. Murphy, March 9, 2017, at paras 42, 73-74.

¹⁷ Exhibit SODRAC-6A at para 30-31, explaining that CBC was in 1998 the largest digital audio and broadcast system to have been implemented in the world, operating 2000 computer workstations and servers networked across Canada. Given the similarities of technologies in television and radio, it is easy to see that the risk existed for radio but also for television. For example, in relation to television, see Exhibit SODRAC-6A, Appendix D: "CBC/Radio Canada's Move to Centracasting".

¹⁸ Exhibit SODRAC-17B at para 9.

[58] While CBC may not have been as forthright as SODRAC would have liked, CBC was entitled to put forth its own witnesses and its own case on its risks and costs associated with its IT investments. SODRAC could have challenged that evidence through cross-examination, and reply evidence if so advised, but chose not to do so.

[59] In view of all the evidence, we are satisfied that CBC invested in sophisticated digital technology in the early 2000s¹⁹ and necessarily faced risks in terms of competitiveness and returns on that investment.

C. WHAT IS THE NATURE OF BROADCAST-INCIDENTAL COPIES?

[60] SODRAC takes the view that while BICs are incidental, they are not optional:

The use of the word "incidental" in the phrase "broadcast-incidental copies" is misleading. In fact, while BICs are created as part of, and are therefore incidental to, the CBC's broadcast operations, they are not optional to those operations. To the contrary, they are an essential input to the CBC's broadcasting activities in a digital world. Without the ability to rely on the new copy-dependent technology, the CBC would struggle in the broadcasting market, losing revenue and market share to its competitors. In fact, the Business Cases suggest that, in time, the CBC would not be able to operate at all. The Business Cases show that the new copy-dependent technology is central both to broadcast operations and to meet consumers' demand and realize new monetization initiatives.²⁰

[61] We accept that submission. BICs clearly play an important role in facilitating more effective broadcasting operations. If a copy facilitates the broadcasting system in an important, albeit incidental fashion, it might have more value to the user that if it were merely incidental but not important. We have determined above that BICs have enhanced value to the user compared to analog technology. However, even if BICs are "essential" their nature as "incidental" copies does not change, in our view. In fact, the *Copyright Act* recognizes that copies can be both essential and incidental, in the sense that while essential to a process, their only purpose is to facilitate it.²¹ Here, we are dealing with broadcast incidental copies, i.e. "copies [that are...] made to facilitate broadcasting". (*CBC v SODRAC* at para 1)

D. CAN THE BOARD USE THE RATIO APPROACH?

[62] As explained above, in its 2012 Decision, the Board used the "ratio" approach to establish the price for BICs. SODRAC argues that fees, which are based on the ratio method, are balanced and technologically neutral. We first consider whether we may again set the fees for BICs in this redetermination on the basis of a 1:3.2 ratio with the SOCAN tariffs. We conclude that we

¹⁹ See for example, Exhibit SODRAC-6A, Appendix D: "CBC/Radio Canada's Move to Centracasting".

²⁰ Exhibit SODRAC-27, *Boyer Crémieux Report (Licence 2008-2012)* at para 97.

²¹ R.S.C., 1985, c. C-42 at s 30.71, Temporary Reproductions for Technological Processes.

cannot use it alone. We then consider whether agreements embedding the 1:3.2 SOCAN ratio approach can warrant a 1:3.2 ratio-based price.

i. Can the *CBC v SODRAC* criteria be met using the "ratio" approach?

[63] As described by the Supreme Court,²² the ratio method has its origins in the *CSI Commercial Radio, 2003* decision.²³ In that decision, the royalty rate for reproductions of musical works made by commercial radio stations was determined by accepting the rates proposed by the parties as forming the range within which the appropriate rate is to be found: See Commercial Radio, 2003 at p 12. The Board then considered various factors and concluded that the appropriate rate is approximately halfway between the two rates proposed by the parties. The Board then went on to observe that this rate for the reproduction of musical works "is roughly one third of the royalties that [commercial radio] stations pay to SOCAN" for the public performance of those works: See *Commercial Radio, 2003* at p 14.

[64] It is worth noting that the "roughly one third" ratio was only an observation, and the rate for reproduction of musical works was not set as a function of the SOCAN tariff. As such, it could not be said that this ratio represented a fundamental underlying value relationship between reproductions and public performances carried out by a specific user. Furthermore, it was not the methodology used to determine the rate for CSI. Ultimately, the one per cent of revenues fixed by the Board must stand or fall not on this *obiter* by the Board, but on the reasoning given in that decision, namely, the use of the interval approach.

[65] In its decision, the Court cast an unfavourable light on the "ratio" method, emphasizing that this method and its underlying reasoning are not consistent with the principles of balance and technological neutrality:

Neither the record nor the Board's Statutory Licence [2012] Decision, in which it used a ratio based on the royalties CBC pays to the Society of Composers, Authors and Music Publishers of Canada ("SOCAN") to license performance rights to determine SODRAC royalties, gives any indication that the Board considered balance and technological neutrality in arriving at a valuation of the copyright-protected work. There is no indication that the relative value derived from the use of copyright-protected works in CBC's digital technology as compared to its prior analog technology, or the relative contributions of CBC and SODRAC to the analog and digital technologies were considered. (*CBC v SODRAC* at para 75)

[66] After reassessing the ratio method originally employed in light of the valuation principles outlined by the Supreme Court, we conclude that utilizing the ratio method in the circumstances

²² CBC v SODRAC at paras 88-90.

²³ *CSI* – *Reproduction of Musical Works 2001-2004* (28 March 2003), Copyright Board. [*Commercial Radio, 2003*] See, in particular, pp 12-14.

of this case would not be consistent with those principles. We say that because, in our view, the ratio does not offer any comparison of BICs' contributions in both technologies. In fact, the ratio base was established for new digital technologies already adopted by radio stations by 2003 and did not account for the digital/analog comparison.²⁴ Furthermore, the ratio does not measure added value from digital television BICs compared to analog technology for CBC; does not account for functional differences or internal efficiencies; does not account for balancing factors such as risk and investment related to the implementation of digital technology; and, does not lead to lower licensing fees as signalled by the Court.

ii. Is the 1:3.2 ratio used in agreements?

[67] Both Parties recognize that the *CBC v SODRAC* criteria may be factored into an agreed price. For example, Dr. Reitman stated that "[t]he use of a negotiated agreement theoretically incorporates all the information available to the parties about risk, costs, investments and returns to investments, and the relative role of music in the creation of value for [television] broadcasters".²⁵

[68] SODRAC accepts this proposition but urges the Board to take it one step further: If the Board were to find that the 1:3.2 ratio is commonly used in the marketplace, it could set a price based on that ratio, and assume that the *CBC v SODRAC* criteria have been met.

[69] We reject this latter argument, for the following reasons.

a. Insufficient evidence of the ratio used in the marketplace

[70] Given that the Court in *CBC v SODRAC* has called into question the validity of the ratio approach, we have significant reservations about whether agreements entered into prior to that decision, and which are based on the Board's 1:3.2 ratio approach, such as the 2009 agreement between the Canadian Musical Reproduction Rights Agency Ltd. (CMRRA) and CBC, remain valid indicators of the marketplace. On the contrary, we expect that had parties to those agreements known the Supreme Court's view of the ratio and the factors to be considered when pricing incidental reproductions, those agreements would have been entered into on different terms.

²⁴ Exhibit SODRAC-6A at paras 19ff.

²⁵ Exhibit CBC-2, Dr. Reitman Report at para 128.

[71] Having considered all agreements on the record, we find that except for the 1992 Licence, all either predate *CBC v SODRAC*,²⁶ or are intended to be revised based on the Board's redetermination in accordance with the *CBC v SODRAC* factors.²⁷

[72] Accordingly, while there is evidence that the ratio approach is being used in the marketplace, we conclude that this evidence remains unreliable.

b. The evidence does not bear-out a marketplace ratio of 1:3.2

[73] SODRAC argued that the 2009 CMRRA-CBC Agreement that adopts the 1:3.2 ratio for radio reproductions is a valid benchmark for television BICs. SODRAC further argued that the fact that users did not contest the ratio in the context of commercial radio is an indication that the ratio is balanced.

[74] However – leaving aside our reservations about whether the 2009 CMRRA-CBC Agreement is representative of the marketplace, as expressed above – we are not persuaded that it is evidence that the ratio of market price for the broadcasting of musical works and the market price for the making of BICs is 1:3.2.

[75] The 1:3.2 ratio purports to measure the relative value of all reproductions of musical works made by the user and of the communication of those by that user. To be sure, BICs are included in the numerator of this ratio, but so are all other reproductions. For BICs to be equated with the entire numerator "1" would require that the value of all other reproductions is zero, such that the ratio measures the relative value of BICs to communication. However, we have no evidence for such an economically unorthodox claim.

[76] SODRAC claimed that the scope of this agreement and other similar reproduction licence agreements between CBC radio and collective societies do not include "master copies", implying that they cover BICs only.²⁸ We disagree.

[77] In the television context, a "master copy" is the final synchronized product that is uploaded into CBC's digital content management system. CBC makes use of its digital content management system to perform several functions that help prepare a program for broadcast. These processes result in the creation of BICs.

²⁶ The 2009 CMRRA-CBC Agreement (Exhibit SODRAC-32A) was extended in August 2015 whereas the *CBC v SODRAC* decision was issued in November 2015. The other radio agreements (Exhibits SODRAC-32B, 32C, and 32D) also predate the *CBC v SODRAC* decision.

²⁷ For ex., see Lavallée (Chief), Transcripts, Vol. 7 (H. Conf.) 617:18-25, 618:1-6.

²⁸ Exhibit SODRAC-31, art 2.1; Exhibit SODRAC-32A, art 2.1; Exhibit SODRAC-32B, art 3.1; Exhibit SODRAC-32C, art "Grant of Licence".

[78] In the radio context, the equivalent of the "master copy", the "source copy" or "ingest copy", is uploaded into CBC's digital content management system and BICs are made from this source copy in the same fashion as BICs are made from the "master copy" in the television context. In addition, CBC is described as one of the largest producers of radio content in Canada. CBC not only makes BICs, but also production incidental copies (PICs), such as pre-recorded programming and audio projects, in the radio context.²⁹

[79] CBC pointed out that the Board had specifically rejected the use of television contracts to set radio royalties, since "the right may be the same, but the use made of it and the context in which this is done are very different" (quoting *Commercial Radio*, 2003, at p 9). CBC claimed that these differences cut both ways: if television agreement cannot reliably set radio royalties, then radio agreements cannot be an effective proxy for television royalties either. We believe this applies in the present case.

[80] In addition, we have no information on the value allocation among all categories of copies covered by this licence agreement.³⁰ Accordingly, we consider that the 2009 CMRRA-CBC benchmark is not a usable proxy to support a rate based on the 1:3.2 ratio.

[81] SODRAC further argued that the agreements filed as Exhibits SODRAC-100A, SODRAC-100B, SODRAC-100C, SODRAC-100D, SODRAC-100I and SODRAC-100L concern broadcasters that do not produce audiovisual programs internally, thereby suggesting that, even if the language of the licences permits copies other than BICs, the price is for BICs only.

[82] Again, we do not agree. Even if the broadcaster-parties to those agreements do not actually produce content internally, this does not mean that they did not negotiate a price that gives them the option to do so.³¹ Having to assume an option price of zero would be a very unusual situation, for which we do not have supportive evidence or information.

[83] After carefully reviewing the language of the agreements filed by SODRAC in support of the 1:3.2 ratio and the argument that only BICs are licensed, we conclude that none of these agreements license only BICs. While they may include various restrictions, none limits reproductions to BICs alone. All of the agreements allow production copies and all, particularly

²⁹ See, generally, Exhibit SODRAC-6A, *Report on Contemporary Broadcasting Technology* at s 4.31 and paras 21-36; Exhibit SODRAC-6D, *Report on Contemporary Radio Broadcasting Technology* at paras 32ff.

³⁰ For reference, in its 2012 Decision, at para 117, the Board rejected benchmarks from other markets (online vs. television) because of the lack of similarities due notably to the absence of synchronization in the benchmark market: "the similarities between the online music services and television markets are far from obvious, if only because no synchronization copies are made in delivering downloads or streams over the Internet. We agree."

³¹ TV5 wrote to the Board on May 31, 2010, copying SODRAC's counsel, and indicating notably that [translation] "the fact that TV5 decided, for its own reasons, to exercise or not this right to produce internally, has in our opinion no effect on the rights which have been granted to us and based on which the value of the royalty has been established".

the 2009 CMRRA-CBC, are drafted in such a broad way that all categories of copies (e.g., Ingest Copy, PICs, BICs) made for the purpose of broadcasting are permitted.

iii. Summary

[84] Based on the foregoing analysis, we conclude that it is not appropriate to use the ratio method approach to determine the royalties payable for BICs in these proceedings. We now turn to the historical approach.

E. SHOULD THE BOARD USE THE HISTORICAL APPROACH?

i. Overview

[85] Our task is to fix royalties for broadcast copies that are incidental and facilitative, keeping in mind the Court's observation that where the risks of investing and implementing the new technology are undertaken by CBC, and the use of the reproductions is incidental, the balance principle would suggest relatively low licence fees to the copyright holders. "Relatively low" in relation to what, and based on what criteria, the Court did not say.

[86] We recognize that the increased benefits derived by CBC from the use of BICs in the new digital technology, as compared to its former analog technology, favour increased licence fees, while at the same time the risks undertaken by CBC and its investment in the new technology – and the incidental nature of the BICs – work in the contrary direction and favour lower licence fees.

[87] The Court noted that the 1992 licence agreement between SODRAC and CBC flowed from the *Bishop* decision (*CBC v SODRAC* at para 17). This agreement therefore covers broadcast-incidental copying prior to the change in digital technology. The licence fee is adjusted in various ways by the Parties to project it into the digital period and this approach has been called the "historical method".

[88] We prefer and adopt this method in arriving at what we find to be a balanced and technologically neutral price for the use by CBC of SODRAC's repertoire in CBC's television BICs.

[89] In examining and applying the historical approach, we use as a starting point a price of \$420,000 for television. The Parties agree on this price, which is on average 85 per cent of the royalties for television and radio set out in the original 1992 Agreement between SODRAC and CBC. As noted, this price includes the making of all reproductions, not only BICs.

[90] From that starting point, the analysis requires us to make adjustments (i) for changes in the use of SODRAC's repertoire since 1992; (ii) for inflation since that time; and (iii) to account for

increased technological gains that result from the move from analog to digital systems. The result of these steps is to arrive at a price that encompasses the making of all copies for broadcasting purposes. A further analysis is therefore required to isolate the price of BICs and determine their share of the total price.

[91] Finally, to conclude our analysis, we bring extra-model balancing considerations to bear to arrive at a price for BICs that is fair and equitable, and proportionate to the fact that BICs are incidental, albeit useful, to the broadcasting process.

ii. Repertoire Use

[92] Both Parties updated the 1992 Agreement to reflect changes in repertoire use in the 2008-2012 period. We determine an adjustment that differs from the Parties' and find that there has been a 133 per cent increase in the use of SODRAC's repertoire since 1992.

[93] CBC's calculations are as follows. It begins with the figure of 52,289 minutes of SODRAC music used by CBC in 1992-1994. (The source of this figure is Exhibit SODRAC-29.A at para 31)

[94] Dr. Reitman indicates (Exhibit CBC-2 at para 133) that it relies on data reported by SODRAC regarding the quantity of music used for 2006-2008. He calculates 84,054 minutes of SODRAC music. However, this figure does not appear anywhere in SODRAC's data, which instead indicates 130,017 minutes. (Exhibit SODRAC-29.A at para 31) Furthermore, even if this figure were correct, it would imply a growth in repertoire use of 61 per cent.

[95] CBC then takes the 46.33 per cent SODRAC repertoire share from the 2012 Decision and tries to use it to compute the new repertoire share.

[96] In sum, CBC's analysis suffers from two flaws. First, it seems to confuse repertoire shares with the growth in the use of the repertoire. The former is used for converting a rate set for the entire published repertoire to one for a collective society representing a fraction thereof. The latter is used for measuring the growth in the repertoire used, as in the historical approach. Second, while the initial datum used by CBC is accurate, its final one is not. It is found nowhere in the evidence and may simply be an oversight. The growth rate between a correct figure and an incorrect one is *per se* improper, relative to the calculation using two correct figures.

[97] SODRAC calculates an increase in repertoire use of 117 per cent. We use the same underlying data but apply a different method to calculate the increase in repertoire use; our figure is 133 per cent. The paragraphs that follow explain the difference between our calculations and SODRAC's.

[98] SODRAC begins by calculating the average second used of its repertoire by CBC in two periods -1992 to 1995 and the year 2008. The growth rate between the period 1992-1995 and the year 2008 is 117 per cent. However, this calculation suffers from two problems.

[99] First, the calculation consists of comparing an average of four years with a single year. If that single year represented an unusually high or unusually low use of SODRAC's repertoire, the choice of that year would tend to bias the calculation.

[100] Second, even had SODRAC chosen a period of several years with which to compare the period 1992- 1995, it would still have been mathematically incorrect.

[101] This is because there are two calculations to be performed: a calculation of an average and a calculation of a growth rate. Since a growth rate is not a linear calculation, the order in which the two calculations are done matters. In particular, the non-linear calculation must be done first.

[102] We calculate the (net) growth rate, year-over-year, for the years from 1992 to 2008. That is, for each year, we compute the percentage change in seconds of SODRAC's repertoire used by CBC, relative to the preceding year. The average of these growth rates is 7.4 per cent. We are interested in an 18-year period from 1993 to 2010, since 1993 is the midpoint of the 1992 Agreement (1991 to 1995) and 2010 is the midpoint of the licence the Board is now fixing (2008 to 2012). Multiplication yields the answer: $7.4 \times 18 = 133$. In other words, we calculate the average of growth rates. SODRAC calculates the growth rate of averages.

iii. Inflation

[103] SODRAC submits that an inflationary adjustment be applied to convert the royalties from their value during the 1992 Agreement to their value during the licence period (2008-2012). CBC does not contest SODRAC's calculations in this regard but argues that the only required adjustment is a 9 percent increase, which is how much the royalties owed by CBC to SOCAN grew from 1992-1995 to 2008-2012. In CBC's view, this 9 percent increase covers inflation, as well as other factors.

[104] We conclude that an inflationary adjustment is appropriate and fix the rate at 38.2 per cent.

[105] Contrary to SODRAC's submissions, CBC does not convert the royalties from their value during the 1992 Agreement to their value during the licence period (2008-2012). It argues that the 9 per cent increase in SOCAN royalties during the period covers inflation and other aspects of technological-progress growth.

[106] We reject that argument because it is not credible. If there has been 38.2 per cent inflation over a given period – as we find to be the case – a 9 per cent increase cannot account for that inflation unless it also accounts for another factor that has decreased by about 29 per cent during

the same period. CBC did not name any such factor. Furthermore, we found that there is improved technology; this is another factor to raise rates, not lower them. All the indications we have in this matter suggest that 9 per cent is an underestimate of inflation experienced by CBC.

[107] SODRAC submits that an inflationary adjustment be applied to convert the royalties from their value during the 1992 Agreement to their value during the licence period (2008-2012).

[108] The calculation by Drs. Boyer and Crémieux relates to the years 1995 through 2010. We redo the calculation, however, using the years 1993 through 2010. This is because the repertoire calculation uses the same years. Principles of statistics suggest that using the same years for these calculations is a "best practice". We adopt this approach for the following reasons. First, since inflation is measured frequently and usage of SODRAC's repertoire by CBC is measured infrequently, it is natural to choose a year for inflation to match a repertoire year. Second, there is nothing in the historical model to suggest that matching years would be an inaccurate description of CBC's decision process. Put differently, CBC chooses what to broadcast and, implicitly, how much of SODRAC's repertoire to use; CBC neither chooses nor sets inflation. This also tends to lean towards matching years.

[109] We follow the method used by the Board in *CBC Radio*, 2011.³² The all-items consumer price index (CPI) for January 1993 was 85.0. The all-items CPI for December 2010 was 117.5. The ratio of the latter number to the former is 1.382; it follows that the inflation adjustment is 38.2 per cent. This figure is somewhat higher than SODRAC's of 34 per cent.

iv. Technological Gains

[110] The Parties have presented divergent views on the relationship between technological change and the value of BICs and on how to determine the factor to be applied in adjusting the historical rate for that change. After careful analysis, we found neither of the Parties' approaches helpful in these circumstances and, instead, we have adopted an approach based on the concept of total factor productivity (TFP). We did this after seeking and considering the submissions of the Parties. This approach yields an adjustment factor of 17.32 per cent to account for technological change.

a. The Parties' Measures of Technological Gain

[111] As part of its own historical approach, SODRAC proposed to use a 0.8/0.35 ratio as a factor for determining the appropriate adjustment. That ratio originates from the Board's March 31, 2006, decision that set a marginal rate of 0.35 per cent of revenues for stations that do not keep copies on a computer hard disk and a marginal rate of 0.8 per cent of revenues for other

³² SOCAN and Re: Sound Tariffs 1.C (CBC Radio), 2006-2011 (8 July 2011) Copyright Board at paras 82ff.

stations.³³ This option suffers from the fact that SODRAC itself does not believe it has a strong empirical foundation.³⁴ Furthermore, because of the way in which the 0.8/0.35 ratio was constructed, it depends implicitly on the repertoire adjustment for CSI in 2003.³⁵ It is not sound to have a measure of technological improvement depend on repertoire adjustments in any way.

[112] We do not consider this option any further.

[113] From CBC's perspective, there is no causal link between the copyright-protected works and the added value CBC has obtained from its investment in digital technology and therefore there should be no adjustment. We disagree and reiterate that the technological benefits and improvements necessarily interact with SODRAC's repertoire. (See *Bishop* and paragraphs 47-49 of these reasons, above)

[114] In the alternative, CBC proposed to take into account the value of BICs to CBC in terms of inflation and risks, investments and costs of converting to new technologies. The measure of this aggregate value was to be provided by the increase in CBC payments to SOCAN between 1992-1995 and 2008-2012, a 9 per cent increase. The assumption was that the impact of the factors, such as productivity gains, that determine the value of music for CBC, in accordance with the principles of balance and technological neutrality, is reflected in any change in a private sector company's profits or, in the case of CBC which is not for profit, in the change of the royalties paid to SOCAN.

[115] Drs. Boyer and Crémieux critique this measure of technological change extensively, arguing that there is nothing to link technology to this tariff increase. Even if there were a link, they say, the benefits of this technology need not have been in the same magnitude for the reproduction right as for the communication right.³⁶

[116] There is merit in these critiques, and we add the following.

³³ Statement of Royalties to be Collected by CMRRA/SODRAC Inc. for the Reproduction of Musical Works, in Canada, by Commercial Radio Stations (2005 and 2006) (31 March 2006) Copyright Board at p 9.

³⁴ Exhibit SODRAC-27 at para 138.

 $^{^{35}}$ The figure 0.8 represents the repertoire share of CSI, which is the repertoire share of CMRRA plus the repertoire share of SODRAC minus any overlap. The figure 0.35 is a 44 per cent share of 0.8, based on the agreement between CSI and CAB that radio stations that make low use of CSI's repertoire should pay less. The Board adapted the 44 per cent figure to stations that do not make many reproductions, at CSI's suggestion, but over CAB's opposition. If the Board had been certifying two sets of rates – one for CMRRA and one for SODRAC – instead of one joint rate for CSI, there is no guarantee that the ratios would be the same as they were for CSI. In particular, since SODRAC's repertoire is relatively small compared to that of CMRRA, logic analogous to a minimum fee would likely have created a non-linearity in the ratio of fees for stations that do not make many reproductions to the fees for those who do.

³⁶ Exhibit SODRAC-94 at para 46.

[117] First, the SOCAN-CBC television royalties have always been set as a fixed amount, rather than as a percentage of revenues. Fixed sums cannot respond to changes in technology until the tariff is next considered and fixed anew.

[118] Furthermore, the history of the SOCAN-CBC television tariff is inconsistent with the assertion that the SOCAN rate has captured technological gains. From 1992 to 2002, the amount payable was \$6,350,000 per year. From 2006 to date, the amount payable was \$6,922,586 per year. The 9 per cent increase between \$6.35 million and \$6.92 million was pursuant to an agreement between SOCAN and CBC; the parties gave no reasons at the time.

[119] The agreement between SOCAN and CBC may have reflected the increased efficiency in communications that came from CBC's new automation system. Or it may have reflected an increased efficiency in reproduction technology. Or both, or neither. The two are not the same. We simply don't know.

[120] Second, this option is characterized by uncertainty because the 9 per cent royalty growth of the SOCAN rate cannot account for both positive technological change and 38.2 per cent inflation. It follows that the inflation embedded in the 9 per cent price growth is somewhere between 0 per cent and 9 per cent but is not based on the Consumer Price Index (CPI). It is possible that SOCAN buys different goods and services than the typical Canadian consumer, but there is no evidence as to which goods and services it buys. Put differently, we do not know if SOCAN-inflation was 3 per cent, 6 per cent, 8 per cent or some other figure. This uncertainty makes the option unsuitable for our use here.

[121] Accordingly, we reject this approach as well.

b. Productivity as a Measure of Technological Gain

[122] In order to adjust the 1992 price to account for enhanced benefits associated to digital technology, we consider the use of TFP.

[123] TFP is a generalized measure of productivity. It is formed by measuring total output (for an industry, or for the whole economy) and dividing by the measure of total inputs. Productivity growth is an increase in output, holding fixed the inputs used to produce the output. In Canada, TFP was routinely calculated by Statistics Canada for various industries. The definition of those industries is given according to the North American Industrial Classification System (NAICS). NAICS is the standard used by Canadian, American, and Mexican statistical agencies in classifying business establishments for purposes of collecting, analyzing and publishing statistical data relating to the business economy. It is used to measure sectoral output, inflation, and productivity, among other things, which facilitates both the understanding of inter-sectoral relationships and the enactment of sector-specific policies.

[124] On August 7, 2018, the Board requested comments on the possible use of TFP of the "broadcasting and telecommunications" industry (NAICS code 513) from 1993 to 2010 as a proxy for CBC's efficiency gain in television broadcast-incidental copying as a result of the improvement in technology during this period.³⁷ The growth rate for this industry is 26 per cent. The Parties responded.

[125] CBC provided two main responses, which we address each in turn.

[126] First, CBC provided, via its economist Dr. Reitman, a proposal for a measure of TFP for the broadcasting industry on its own, that is without the telecommunications industry. He proceeded, quite naturally, to measure the inputs and outputs of the broadcasting industry, as well as the prices of these inputs and outputs.

[127] However, Dr. Reitman observes that some of these calculations are problematic.

The difficulty in computing real inputs and outputs for the TV sector is in finding appropriate price indices for the TV industry. On the input side, I make the assumption that prices for inputs such as labour and capital for the TV industry rise at the same rate as input prices for the overall market.³⁸

[128] Dr. Reitman's assumption of equal rates of growth for input prices is likely the only logical way for him to proceed; it is, however, incorrect in our opinion. To see this, it suffices to look at the labour market. Economists frequently refer to the labour market as if there were only one, where suppliers and demanders of labour meet to negotiate a price in a competitive manner. It suffices to observe that this characterization is a gross oversimplification. The Canadian economy consists of many industries: natural resource extraction and processing, manufacturing, retail trade, financial services, to name a few of the largest. The nature of the labour demanded by each of these industries is rather different and quite specialized. A person working in manufacturing does not necessarily possess the skills required to work in broadcasting, and vice-versa. These considerations make the use of a single, economy-wide index for labour prices, or input prices in general, inappropriate for use in a TFP calculation for a particular industry.

[129] For this reason, we are not able to give effect to Dr. Reitman's proposal in this regard.

[130] CBC's second proposal was to adjust TFP for NAICS 513 downward by 50 per cent to account for several factors. Of these two are noteworthy: changes in economies of scale and the composition of the industry itself.

³⁷ Notice [CB-CDA 2018-178].

³⁸ Exhibit CBC-129 at para 9.

[131] As CBC explains, increases in economies of scale tend to drive TFP growth upwards. This is a natural consequence of the fact that TFP calculations are made based on the assumption of perfect competition. Any deviation from perfect competition, including economies of scale, shows up in TFP. Any change in economies of scale, therefore, shows up in TFP growth.

[132] CBC cited a paper by Gu and Lafrance (2014).³⁹ This paper, written by two Statistics Canada employees, considers the specific industry the Board mentioned in its notice. The paper notes that economies of scale are a significant driver of TFP in NAICS 513.

While technical progress was the most important contributor to overall MFP growth, accounting for 1.3 to 1.4 percentage points annually, scale economies also made a significant contribution of about 0.5 percentage points, or 30% to 40% of the total. (p 24)

[133] Table 7 of the Gu and Lafrance paper shows the details. From 1984 to 1998, scale economies amount to 0.5/1.4 of TFP growth, or 35.7 per cent. From 2000 to 2008, scale economies amount to 0.6/1.9 of TFP growth, or 31.6 per cent. The weighed average of these two figures is 33.4 per cent.

[134] The composition of the industry is a more problematic factor for which to adjust. CBC claims that 90 per cent of the industry output is based on the telecommunications subsector, a fact for which they cite Gu and Lafrance again.⁴⁰ However, Gu and Lafrance do not make this claim.

[135] It is certain that there are some firms engaging in telecommunications in this sector; ideally, their contribution could be removed from TFP growth. However, this is not possible.

[136] Members of both the telecommunications industry and the broadcasting industry appear regularly before the Board. As a result, the Board follows developments in both industries closely. We take note of the following facts.

[137] Both the telecommunications and the broadcasting industries are concentrated.

[138] There has been significant concentration in both industries during the period of interest that is 1993 to 2010.

[139] Among the firms in both industries that contribute the most to their sector-specific GDP, many are owned by holding companies that own both a telecommunications firm and a broadcasting firm. This implies the possibility of share input costs between the two "sides" of the holding company.

³⁹ Exhibit CBC-129 at para 5, note 5.

⁴⁰ Exhibit CBC-129 at para 5, note 5, quoting Gu and Lafrance at p 7.

[140] Considering these facts, we believe that TFP for NAICS 513, stripped of its economies of scale, grew at the same rate in its telecommunications and broadcasting subsectors. If the rate of growth is the same, it does not matter if the relative size of the subsectors is as different as CBC claims. The linearity of growth rate calculations makes this consideration redundant.

[141] Considering the points raised by CBC, we feel it is appropriate and reasonable to adjust TFP for NAICS 513 downwards by 33.4 per cent for economies of scale; no further adjustments are required or appropriate. This yields a rate of 17.32 per cent to account for technology gains.

c. Summary

[142] Using TFP growth in NAICS 513 to proxy for technological change is the best option we have. It is not CBC-specific, but neither are any of the other options. The TFP model suffers from the fewest and least relevant imperfections, as compared to the other options. We note that CBC proposed a number of adjustments to TFP-measured growth, but we retained only one. As a result, the technological gain adjustment is 17.32 per cent.

v. Isolating BICs

[143] The foregoing application of the historical method leads us to an adjusted price for *all* reproductions made by CBC related to television, using SODRAC's repertoire, without separating royalties for BICs from royalties paid for other copies (masters and production-incidental copies). To complete the application of the model, we must do that exercise.

[144] The total adjusted price is \$1,586,665 for the 2008-2012 period. We arrive at that total by adjusting the television portion of the 1992 Licence, that the Parties have agreed is \$420,000, by 38.2 per cent for inflation, increased by 133 per cent to account for the increase in the use of SOCRAC's repertoire, and adjusted further by 17.32 per cent to account for technological gains attributed to the switch from analog to digital systems.

[145] Two options are put forward in this proceeding to isolate BICs from the total price for all reproductions: (i) subtracting the actual fees paid by CBC for the authorization to synchronize music and images or (ii) relying on a notional internal allocation performed by CBC or SODRAC.

a. The Actual Fees Paid by CBC for Synchronization

[146] Dr. Reitman proposes a subtraction method that takes as its starting point the synchronization fees established in *CBC v SODRAC*:

[i]n this proceeding, my understanding is that the synchronization fee for the 2008-2012 period has already been determined by the Board's 2010 judgment,⁴¹ so only the fee for BIC is at issue. Thus, there is no need to determine the optimal allocation between synch and broadcast incidentals for SODRAC and CBC. Rather, the principle of balance implies that one can use models or benchmarks to determine the appropriate compensation to SODRAC by CBC for all reproduction rights. Then, by subtracting the amount of compensation for synchronization rights, the residual would be the appropriate compensation for BIC.⁴²

[147] In its 2012 Decision, the Board set yearly synchronization fees at \$832,479.⁴³ These fees were only for internal productions and, as such, did not include commissioned productions. Dr. Reitman assumes that synchronization fees for programs purchased by CBC from third parties are the same as those made by CBC and that these fees pass through one for one to CBC when purchasing those programs. He therefore divides by 54.8 per cent to obtain a "total" synchronization amount of \$1,519,122.⁴⁴ This fee accounts for synchronization in CBC's internal productions, productions commissioned by CBC and pre-existing productions. Because the 1992 Licence covered only internal and commissioned productions, we make a correction to carve out pre-existing productions. After correction, the total synchronization amount would be \$1,467,287.⁴⁵

[148] Dr. Reitman's subtraction method can lead to a negative number for royalties. A negative number is treated by CBC as a zero or a nominal price. In this case, we obtain a total amount of \$1,586,665 for the 1992 Agreement projected for the 2008-2012 period. This implies royalties for BICs of \$119,378using the subtraction method.

[149] Our primary concern with the subtraction method is that the two elements to be subtracted one from another come from two different models. The gross-up amount is based on the 1992 Agreement, whereas the amount set by the Board for synchronization (including the Master copy) was not based on the 1992 Agreement. Had we re-examined the synchronization price in

⁴¹ Dr. Reitman means the Board's decision in 2012, not 2010.

⁴² Exhibit CBC-2 at para 61.

⁴³ Copyright Board 2012 Decision at para 130.

⁴⁴ Exhibit CBC-2 at para 142.

⁴⁵ Based on CBC's evidence on the shares of internal and "external" productions in CBC and SRC (Exhibit CBC-48), Dr. Reitman concluded that 54.8 per cent of CBC's productions are internal and the rest (45.2 per cent) are external (Exhibit CBC-2 at para 142). However, this external production includes both CBC's commissioned production and "off-the-shelf" production (i.e. productions with no CBC's involvement). The share of "off-theshelf" productions is 13 per cent of CBC's French programming and 3 per cent for the English network (CBC, Closing Submissions (2008-2012 Redetermination) at para 115 and footnote 216). Based on this evidence, we deducted CBC's off-the-shelf content to calculate the shares of internal and "commissioned" productions in CBC and SRC. After this adjustment, we estimated that 58.2 of CBC's productions are internal (instead of Dr. Reitman's 54.8 per cent) and the rest (41.8 per cent) are commissioned (instead of Dr. Reitman's 45.2 per cent). Accordingly, we obtained \$832,479 * 41.8/58.2 = \$634,808 for CBC's synchronization payments for commissioned production.

these proceedings, we may have arrived at a different conclusion based on the method we use here.

[150] In addition, using two separate methodologies increases the margin of error of the calculation.

[151] For these reasons we decline to apply the subtraction method here for the purpose of isolating the price for BICs from the price for all reproductions.

b. The Imputed Fees

[152] Rather, we choose to adopt the second option referred to above involving an imputed or notional allocation as between SODRAC and CBC. Our calculations lead us to adopt a figure of \$396,666 per year for BIC royalties. We obtain this figure as a 25 per cent share of the total adjusted price of \$1,586,665 for the 2008-2012 period, as computed above. We arrive at a 25 per cent share for the following reasons.

[153] Drs. Boyer and Crémieux assume that the price split between BICs and synchronization copies is 50-50. They do not give any justification for the choice of 50 per cent to each of the types of reproductions, however. Their assumption is arbitrary. Implicit in this assumption of a 50-50 sharing rule is some sort of conclusion that BICs and synchronization are equally "important". While SODRAC asked CBC numerous questions regarding the relative importance of various types of BICs,⁴⁶ it did not ask any questions about the relative value of BICs and synchronization copies.

[154] The Court emphasized that it is important for the Board to account for the "value to the user". (*CBC v SODRAC* at para 79)

[155] Because BICs are "incidental" by nature, their value to the user is evidently lower than that of non- incidental copies. In its 2012 Decision, the Board highlighted this characteristic, noting that "an incidental copy is necessary or helpful to achieve an intended outcome but is not part of the outcome itself." (para 12) The incidental nature of these copies is not coherent with the assertion that BICs should have identical value to synchronization. We therefore reject a 50-50 split and the proposition that BICs should represent 50 per cent of total royalties.

[156] In its closing submissions, however, CBC put forward an alternative way to determine the allocation of royalties for BICs from the total royalties:⁴⁷

⁴⁶ See Exhibit SODRAC-59, Appendix I.

⁴⁷ CBC, *Closing Submissions* (2008-2012 Redetermination) at paras 137-140.

The "1" in the ratio must be apportioned between three types of copies: BICs, PICs, and the synchronization or Master copy. The Master copy is clearly the most valuable category, and should be attributed 50% of the value. The remaining 50% should be evenly divided between BICs and PICs. This results in BICs receiving 25% of the total value, while PICs and Masters receive 75%. This 25-75 split reflects several important facts about how the reproduction right is used in the television industry: (i) there are many more copies made during production than broadcast; (ii) producers pay substantial synchronization royalties, showing that most of the value is in the synchronization copy; (iii) broadcasters pay performance royalties to SOCAN; (iv) the reproduction right has a lower essentiality/greater optionality in TV as compared to radio.⁴⁸

[157] We find this submission persuasive, not only from a common-sense point of view but also because it can be justified in economics terms by re-characterizing the submission in the context of generalized Nash bargaining principles. Consider the following.

[158] There are three players: the Master (synchronization) Copy, all PICs, and all BICs. Each of these three players nominally represents three "Departments" of SODRAC in the game. In this game, the Master Copy is essential, while PICs and BICs are not.⁴⁹ Prior to the beginning of the game, CBC and SODRAC agree that the total amount to be paid by CBC to SODRAC for all reproductions (production and broadcast) is the amount of the 1992 Agreement grossed up. This surplus (to use the language of Nash bargaining) is bargained over sequentially.

[159] In the first stage, the BICs and PICs bargain together with the Master Copy (the Master Copy is privileged as essential). In a negotiation between the Master Department and the All-Other-Copies Department, neither party has excess bargaining power. Either party could decide to leave the negotiations and cause the agreement between CBC and SODRAC to fall apart. It follows that both parties have symmetric "threat points". The result of the bargaining is immediate (due to Nash): the Master Copy receives 50 per cent and the All-Other-Copies receive 50 per cent.

[160] In the second stage, the All-Other-Copies Department splits back into the BICs and PICs Departments. The BICs and PICs are equally important. Once again, both parties have equal bargaining power and symmetric threat points. The Nash bargaining solution yields a 50-50 split of the remaining 50 per cent, or 25 per cent apiece.

[161] It should be noted that experts for SODRAC and for CBC both used Nash bargaining games in their expert reports. The games they present differ both from one another and from the

⁴⁸ CBC, *Closing Submissions* (2008-2012 Redetermination) at para 139.

⁴⁹ In Nash, an input is essential if it cannot be substituted by another input, regardless of the cost (including loss of efficiency, etc.).

one suggested above. The Nash bargaining game put forward by SODRAC is a bargaining game between CBC and SODRAC. As Dr. Boyer explains:

The additional monetary pie generated by CBC's use of BICs in a new technological environment should be equally shared between the CBC and the rights holders. This solution is applied after the investments and risks incurred by the CBC as well as by the rights holders are properly covered. It is the residual value that should be shared 50-50 among the agents.⁵⁰

[162] Given the way Dr. Boyer defines his game, he does not have data to determine the residual value.⁵¹ He does not proceed further with Nash bargaining, despite concluding that a properly characterized bargaining game would be ideal.

[163] Similarly, Dr. Reitman identifies a number of key variables:⁵²

- The revenues earned by CBC on an audiovisual product that is synched with SODRAC music;
- The incremental costs to CBC of producing and broadcasting the product, other than payments to SODRAC;
- The net revenues earned by CBC on the next best alternative (a production without SODRAC music) should no deal be reached with SODRAC;
- The total costs to CBC of the production, including opportunity costs;
- The opportunity costs to SODRAC of use of its repertoire in the CBC production;
- The payment to SODRAC for synchronization of music into the audiovisual product; and
- The payment to SODRAC for broadcast-incidental copies of the audiovisual product.

[164] Dr. Reitman then addresses three games. In his first game, the parties bargain over synchronization alone. In his second game, the parties bargain over synchronization and BICs in an unconstrained way. In his third game, the parties bargain over synchronization and BICs subject to the total payment being fixed outside the model. He solves all three games in algebraic form but neither calibrates nor econometrically estimates the values arising from them.

[165] In our view, however, the Nash "game" as outlined by us above can provide a useful model for calibrating and estimating the appropriate share of total royalties attributed to BICs. We rely on it and allocate 25 per cent of the total value, namely \$396,666, to BICs. It is not insignificant that this percentage is also CBC's own assessment of the portion of the value attributable to BICs, as noted above.⁵³

⁵⁰ Exhibit SODRAC-27 at para 27.

⁵¹ Exhibit SODRAC-27 at para 103.

⁵² Exhibit CBC-2 at para 18.

⁵³ CBC, *Closing Submissions* (2008-2012 Redetermination) at para 139.

[166] We recognize there may be some element of notional double payment in this approach. The sum of the royalties now being fixed for BICs together with the royalties that CBC has paid for synchronization will be greater than the Board's present assessment of the price for both BICs and synchronization. We do not see this as leading to BIC royalties that are not fair and equitable, however. The risk of double payment is always present where the Board is not considering all relevant prices at the same time. That is the case here, and we do not believe it to be sufficiently significant here to warrant discarding this model.

[167] Compared to the other methods of allocation put forward by the Parties, we prefer this option. It represents an assessment of the relative value of BICs in relation to all reproductions, thereby recognizing the incidental nature of BICs, whereas the arbitrary method of allocation does not. Moreover, it is consistent with the pricing model used in the rest of our analysis, whereas subtracting royalties for synchronization is not.

[168] Because this price is a flat fee based on the 1992 Agreement as updated, including repertoire usage, it no longer requires a discount for incidental reproductions of programming containing works that are part of SODRAC's repertoire and which are source licensed.

F. WHAT SHOULD BE THE PRICE FOR INTERNET BROADCASTING-INCIDENTAL COPYING?

[169] In terms of BICs carried out for Internet broadcasting, in this specific case, the Parties have agreed that 4 per cent is the approximate relationship of importance of Internet broadcasting in relation to conventional television broadcasting. Accordingly, we leave that 4 per cent top-up unchanged from the original licence. The annual amount payable is, therefore, \$15,867.

V. THE REVISED LICENCE FEES FOR CONVENTIONAL AND INTERNET TELEVISION BICS: CONCLUSION

[170] Since the Supreme Court directs the Board to compare digital and analog pricing, and the 1992 Licence is the only price indicator for analog copies on file, it is our view that the Court's decision (which acknowledges the 1992 Licence) logically requires the Board to include the 1992 Licence in its analysis. For that reason, the historical approach, which uses the 1992 Licence as a proxy and makes adjustments to account for differences between it and the licence at issue, is the better approach put forward by the Parties.

[171] As outlined above, we have determined that the ratio approach, as developed by SODRAC, was infused with too many problems for use in these proceedings, either in terms of complying with the *CBC v SODRAC* criteria or from a methodological viewpoint. We note however, as did the Parties, that ratios are commonly used in economic analysis and can be a valid approach under certain circumstances. For example, a rate in the target market can be determined by

considering a rate in an appropriate benchmark market times the ratio of reliable adjustment factors in the target and benchmark market.

[172] The Board enjoys a certain margin of discretion in arriving at fair and equitable royalties where those royalties are not capable of precise calculation. As the Court observed:

Whenever the Board engages in the valuation of a licence or tariff, it arrives at a determination by applying its experience and expertise to weigh evidence that may not be reducible to an objective economic valuation. This difficulty, however, should not mean that the Board cannot carefully consider expert evidence, the availability of any suitable proxies, and other relevant considerations in arriving at a reasonable valuation. (*CBC v SODRAC* at para 93)

[173] We have determined the appropriate royalties for BICs in the conventional television context to be \$396,666 per year, before deduction of fees paid under the 2009 interim licence, if any, and before interest (which we address in the next section). Royalties for BICs relating to Internet broadcasting remain at a top- up of 4 per cent over that amount.

[174] The request for a licence from SODRAC covers the period from November 14, 2008, through March 31, 2012. As a result, we identify four periods and their royalties:

- November 14, 2008, to November 13, 2009: \$396,666
- November 14, 2009, to November 13, 2010: \$396,666
- November 14, 2010, to November 13, 2011: \$396,666
- November 14, 2011, to March 31, 2012: \$149,972.50 (this is prorated for the portion of the year covered by this period)

[175] In our view, these royalties are fair and equitable and proportionate to the incidental nature of BICs – "relatively low" in the language of the Majority – in relation to the full synchronization price for all reproductions utilizing SODRAC's repertoire. We believe that our use of the Nash bargaining theory, and the weights we applied in doing so, have permitted us to find an allocation, and therefore a resulting dollar amount, that are consistent with this approach and with the principles of technological neutrality and balance.

VI. INTEREST

[176] The Board recognizes the time value of money and, as such, may provide for interest factors and post-decision interest. The Parties were consulted on these issues.

A. POST-DECISION INTEREST

[177] The Parties agreed on post-decision interest. On consent, royalties after deductions of fees paid under the March 31, 2009, interim licence, if any, and increased by using the multiplying interest factors set out below, shall be due 90 days from the date of this decision. If an amount is

not received by this due date, it shall bear interest from that date until the date the amount is received. Interest shall be calculated daily, at a rate equal to 1 per cent above the Bank Rate effective on the last day of the previous month (as published by the Bank of Canada). Interest shall not compound.

B. PRE-DECISION INTEREST

[178] The Parties were not able to agree on pre-decision interest in terms of the period that should be covered. CBC considers that 12 years of interest (i.e. from the beginning of the licence until the date of this decision) represents a windfall for SODRAC rather than a reasonable compensation for lost time. In CBC's view, it is unfair for CBC to pay a time premium when most of the delay in question can be attributed to SODRAC's own litigation strategy. CBC also points out that this case has undergone a series of long deliberations at the Board level, with both the initial Board ruling and the redetermination involving roughly two years of deliberations each. CBC argues that interest should start with the Supreme Court's judgment. This would effectively allocate the burden of interest during one deliberation to each party. SODRAC would bear the burden of interest for the initial deliberation period, while CBC pays interest during the second deliberation period. This 50/50 split of the burden of interest from institutional delay is a fair solution that requires neither party to alone bear the full cost of interest during Board deliberation.

[179] We view it differently. Depending on the final amount, either SODRAC or CBC may be owed money. For example, SODRAC may have not received any payments from CBC since 2008 in consideration of BICs of its repertoire, or CBC may have paid an amount under the interim licence that exceeds the final amount fixed by the Board. In either case, uses of the dollar owed are foregone while the creditor is waiting for it.⁵⁴ This means that the only relevant issue is whether money is owed; litigation strategies⁵⁵ or institutional delays⁵⁶ are not relevant. It is clear that BICs are compensable and that compensation will never amount to zero. (*CBC v SODRAC* at paras 5 and 77)

[180] Moreover, the period for which opportunity costs are incurred should be relatively neutral for the party owing money if that party provisions for an amount, which will yield interest readily available to compensate the creditor for its opportunity costs, once a final decision is issued. In the present case, CBC was subject to the terms of the interim licence issued by the Board on March 31, 2009, which in effect applies the regime set out in the 1992 Agreement: an

⁵⁴ Bank of America Canada v Mutual Trust Co., [2002] 2 S.C.R. 601, 2002 SCC 43 at para 22.

⁵⁵ Pre-decision interests are not costs; they are meant to compensate, not punish a party. See by analogy *Bank of America Canada v Mutual Trust Co.*, [2002] 2 S.C.R. 601, 2002 SCC 43 at para 36.

⁵⁶ Deliberations delays are not normally excluded from the interest period. See by analogy *R. v K.G.K.*, 2020 SCC 7 at para 56.

annual fee of \$520,000 paid on a quarterly basis. This interim licence applies until the Board renders its final decision, which – as a result of the remand order by the Supreme Court – is this decision. The interim licence was never challenged by the Parties. If CBC did not make any payment under the interim licence since 2009, the amount owed will have notionally yielded sufficient interest to cover the opportunity costs for SODRAC or its members in relation to the principal we fix. If CBC paid the interim licence fees, SODRAC will then owe CBC interest to account for the time value of money for the difference between the final and interim licence fee.

[181] In light of the foregoing, the interest factors cover the period from the beginning of the licence period (November 14, 2008) to the date of this decision. For the purpose of calculating interest factors, we need to set the frequency of the payments that *would have been made*, had the licence been issued on November 13, 2008, instead of the date of this decision. To be consistent with the model we use (which is based on the 1992 Agreement) and the 2009 interim licence, we set payments on a quarterly basis.

Payment Number	Payment Date	TV BICs Royalty	Interest Factor	Gross Payment	Interest
1	13-Feb-09	\$99,166.58	1.1343	\$112,484.65	\$13,318.07
2	15-May-09	\$99,166.58	1.1324	\$112,296.24	\$13,129.66
3	14-Aug-09	\$99,166.58	1.1311	\$112,167.32	\$13,000.74
4	14-Nov-09	\$99,166.58	1.1299	\$112,048.32	\$12,881.74
5	13-Feb-10	\$99,166.58	1.1286	\$111,919.40	\$12,752.82
6	15-May-10	\$99,166.58	1.1274	\$111,800.40	\$12,633.82
7	14-Aug-10	\$99,166.58	1.1254	\$111,602.07	\$12,435.49
8	14-Nov-10	\$99,166.58	1.1225	\$111,314.49	\$12,147.91
9	13-Feb-11	\$99,166.58	1.1194	\$111,007.07	\$11,840.49
10	15-May-11	\$99,166.58	1.1162	\$110,689.74	\$11,523.16
11	14-Aug-11	\$99,166.58	1.1131	\$110,382.32	\$11,215.74
12	14-Nov-11	\$99,166.58	1.1100	\$110,074.90	\$10,908.32
13	13-Feb-12	\$99,166.58	1.1069	\$109,767.49	\$10,600.91
14	31-Mar-12	\$51,077.58	1.1037	\$56,374.33	\$5,296.75
		1	-		-
	Total	\$1 340 243 12		\$1 503 928 73	\$163 685 61

[182] Interest factors are as follows:

[183] Using the above table, it suffices to add 4 per cent to each payment to cover the right to make Internet TV BICs.

[184] Finally, to avoid any confusion as to what parts of the original licence are modified retroactively, we have decided to not issue a revised licence. For all intents and purposes, this decision is self-sufficient and the Parties shall only refer to it for the purpose of identifying their respective obligations.

2

Reasons certified by the Secretary General, Lara Taylor