

# **Analysis of Government Support for Public Broadcasting and Other Culture in Canada**

**Nordicity**

Prepared for

**CBC|Radio-Canada**

**October 2013**



## About Nordicity

Nordicity ([www.nordicity.com](http://www.nordicity.com)) is a powerful analytical engine with expertise in strategy and business, evaluation and economics, policy and regulation for the arts, cultural and creative industries. Because of Nordicity's international presence, it has become widely recognized for its ability to translate developments and best practices between markets for the private, public and third sectors.

## Table of Contents

<b>1.</b>	<b>Introduction</b>	<b>1</b>
<b>2.</b>	<b>International Comparison of Public Broadcasters</b>	<b>2</b>
2.1	Public funding for public broadcasters	2
2.2	Commercial revenues	3
2.3	Advertising revenues	6
2.4	Public funding by type of funding tenure	9
<b>3.</b>	<b>The Potential Benefits of Public Broadcasting</b>	<b>10</b>
<b>4.</b>	<b>The Federal Government's Economic Support for Culture</b>	<b>11</b>
	<b>References and Data Sources</b>	<b>13</b>
	<b>Appendix A - Statistics for Public Broadcasters</b>	<b>15</b>
	<b>Appendix B - Potential Benefits Analysis</b>	<b>19</b>
	<b>Appendix C - Estimation of Annual Revenue Impact of Simultaneous Substitution</b>	<b>25</b>
	<b>Appendix D - Estimation of Value of Section 19.1</b>	<b>29</b>
	<b>Appendix E - Statistics for Federal Government Expenditures</b>	<b>32</b>

## 1. Introduction

In the following report, Nordicity provides an update to the study entitled, *Analysis of Government Support for Public Broadcasting and other Culture in Canada*, first prepared for CBC|Radio-Canada in June 2006 and updated in January 2009 and February 2011.<sup>1</sup> This update also includes statistics and analysis of public broadcasters' commercial and advertising revenues, operating expenditures, and new-platform revenues and expenses.

The international comparisons in this report are based on 2011 funding levels. As such, it does not include changes to public funding levels already announced in subsequent years.

---

<sup>1</sup> Due to changes in data sources, methodology and exchanges rates, the public funding statistics for certain countries in this report are not comparable to statistics in previous editions of this report.

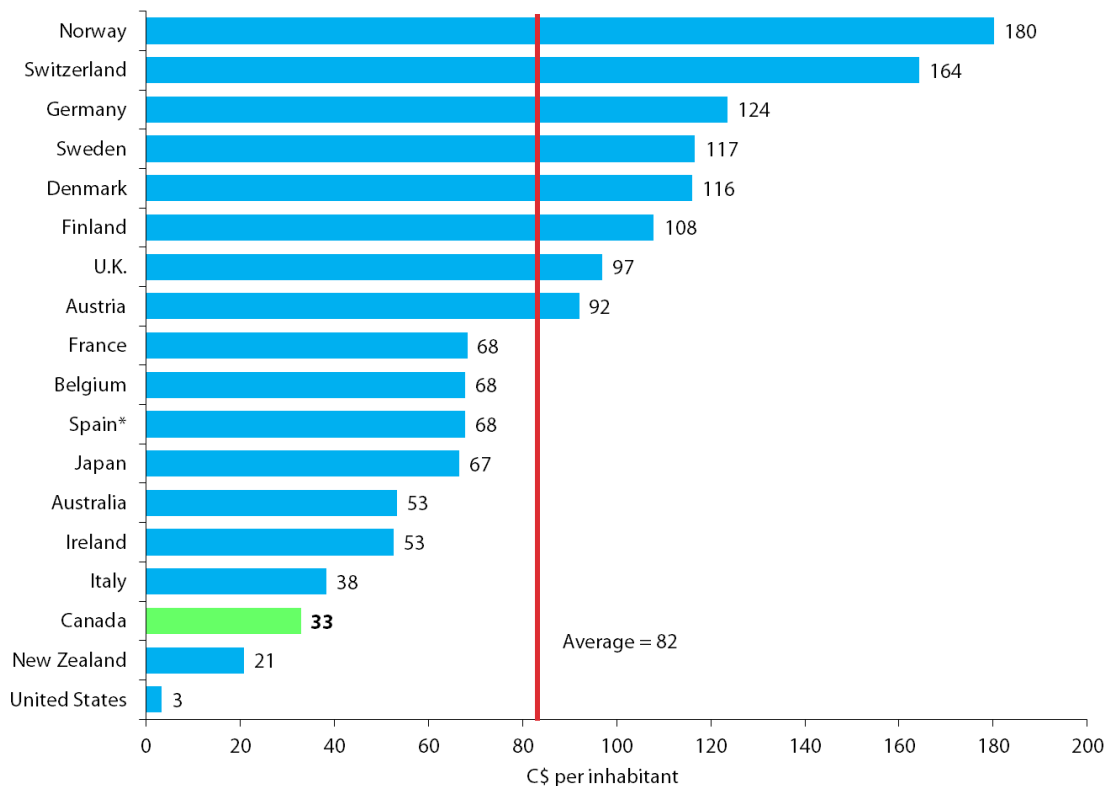
## 2. International Comparison of Public Broadcasters

### 2.1 Public funding for public broadcasters

Among 18 major Western countries, Canada was third in terms of the lowest level of per-capita public funding for public broadcasting in 2011. Only New Zealand and the United States (U.S.) posted lower levels. At \$33 per inhabitant<sup>2</sup> (all amounts in Canadian dollars, unless indicated otherwise), Canada's level of funding was 60% less than the \$82 average across the 18 Western countries. CBC|Radio-Canada is often compared to the BBC in the United Kingdom (U.K.), but notably CBC|Radio-Canada has only one-third of the level of per capita public funding as public broadcasters in the U.K. – BBC and S4C. Canada's level of funding was less than one-fifth of the level of the leading country in terms of public funding, Norway, where the public broadcasting, NRK, received the equivalent of \$180 per capita in 2011.

CBC/Radio-Canada's funding will decline further as a result of the federal deficit reduction action plan (DRAP). When the cuts are fully implemented in 2014/15 fiscal year, CBC/Radio-Canada's per capita funding will decline from \$33 to \$29.

**Figure 1 Per capita public funding for public broadcasters, 2011**



Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

\* Statistics for Spain include an estimate for the autonomous region public broadcasters.

<sup>2</sup> This figure excludes the public funding of provincial educational broadcasters: TéléQuébec, TVOntario, TFO and Knowledge Network BC. The public funding for these broadcasters was equal to approximately \$4 per inhabitant in 2011.

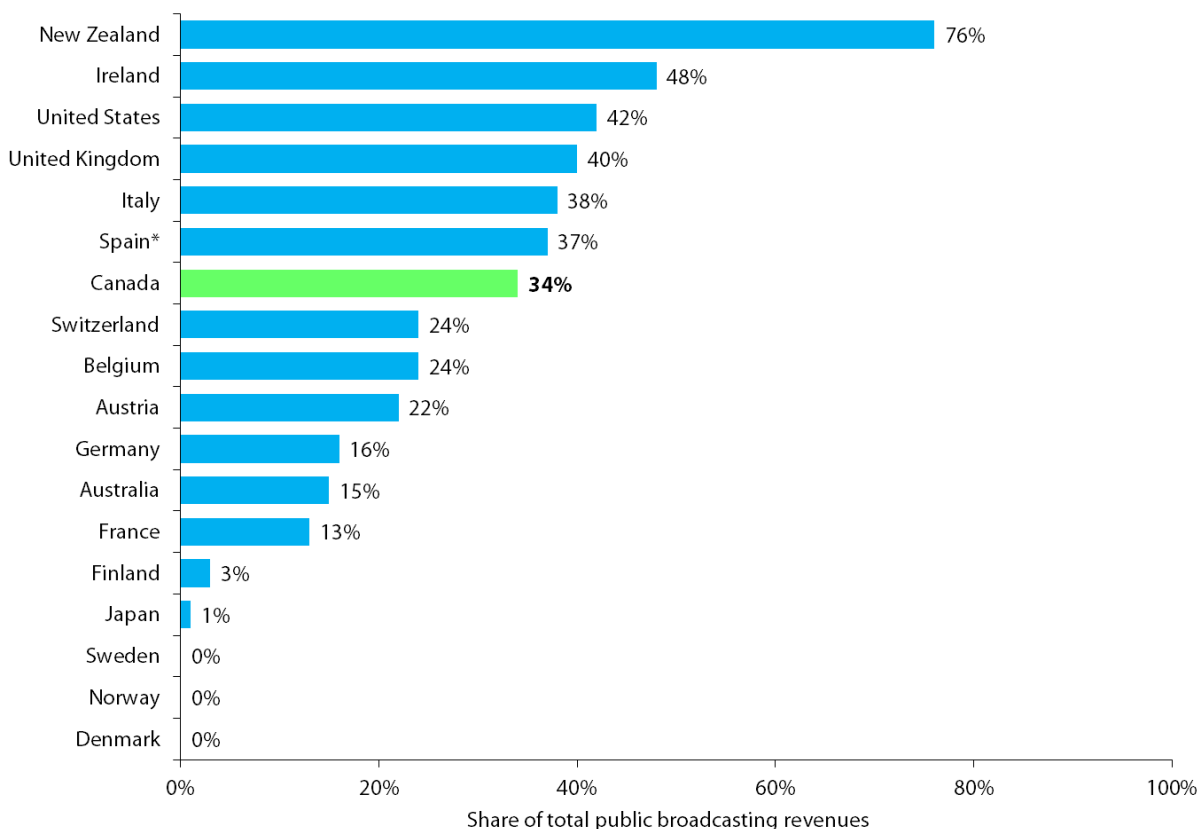
## 2.2 Commercial revenues

In this section, we examine the extent to which public broadcasters in the 18 comparison countries earned revenues from commercial sources in 2011, including the sale of television and radio advertising airtime, the sponsorship of television and radio programming, the licensing of programming to other broadcasters, publishing rights and merchandise sales.

Among the 18 comparison countries, there were three countries where public broadcasters did not earn any commercial revenues. Public broadcasters in Sweden, Norway and Denmark reported that they did not earn any revenues from commercial activities in 2011: all of their income was derived from public-funding sources, namely television and radio licence fees levied on households and businesses.

One-half of the comparison countries earned anywhere from 1% to 24% of their total revenue from commercial activities in 2011. Seven countries – Canada, Spain, Italy, the U.K., the U.S., Ireland and New Zealand – relied upon commercial activities to generate one-third or more of their total public broadcasting revenues in 2011.

**Figure 2 Commercial revenues as a share of total public broadcaster revenues, 2011**

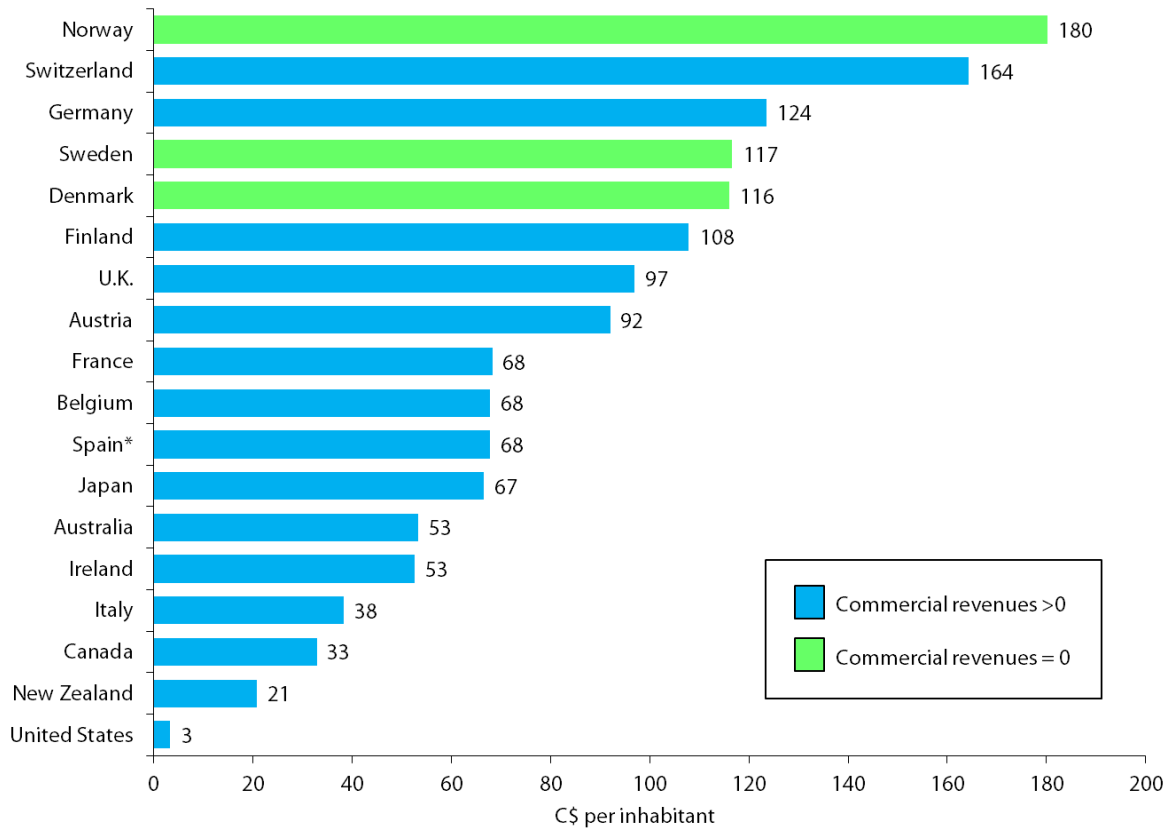


Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

\* Statistics for Spain include an estimate for the autonomous region public broadcasters.

The three countries where public broadcasters did not earn commercial revenues in 2011 – Norway, Denmark and Sweden – were in the top half of countries in terms of public funding per capita.

**Figure 3 Commercial revenues and public funding per capita, 2011**



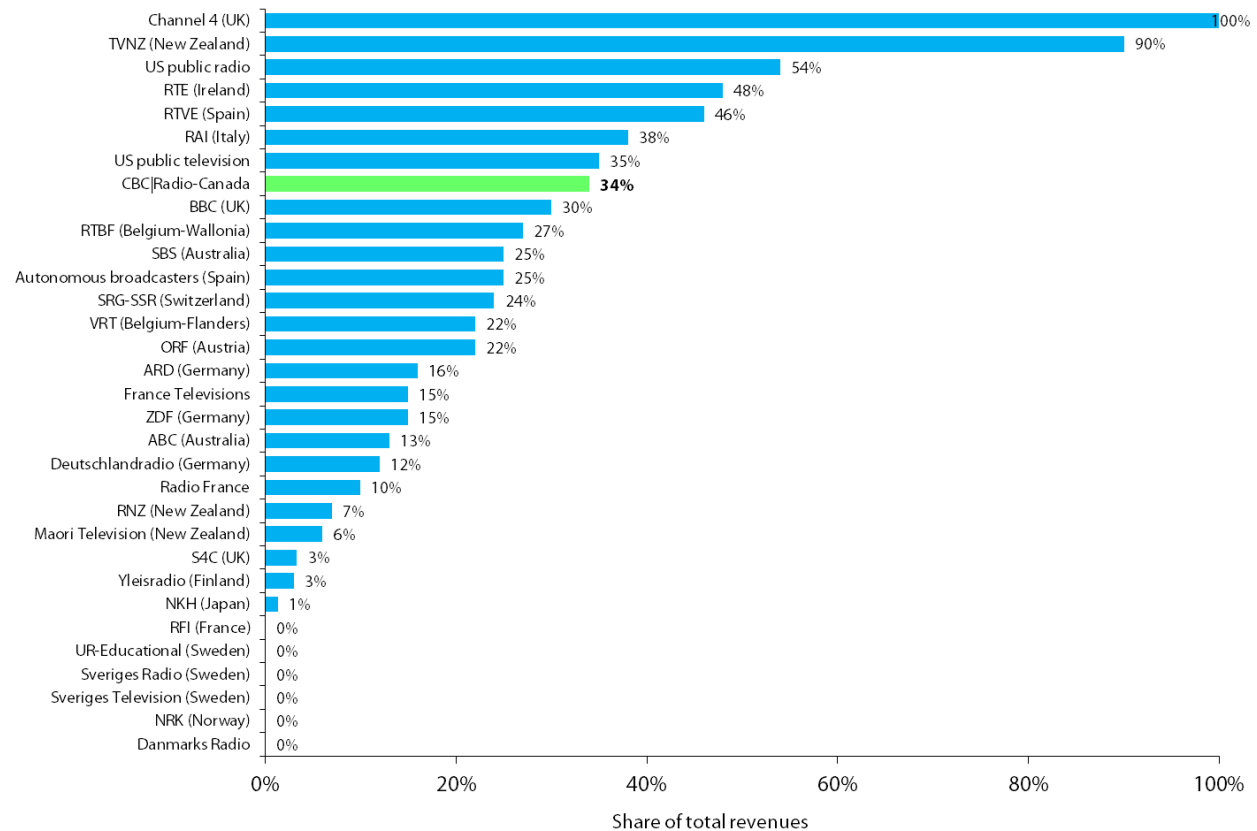
Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

\* Statistics for Spain include an estimate for the autonomous region public broadcasters.

Across the 18 comparison countries, we obtained data for 32 individual public broadcasters or organizations of public broadcasters.<sup>3</sup> On a broadcaster-by-broadcaster basis, five broadcasters earned 46% or more of their revenues from commercial activities in 2011. This group of broadcasters included the government-owned Channel 4 in the U.K., which relied entirely upon advertising and commercial activities to fund its broadcasting operations. This group also included public television and radio broadcasters in the U.S., which collected the majority of their revenues from individual, corporate and institutional donations, and program sponsorships.

The majority of public broadcasters – 21 in total – earned between 1% and 38% of their total revenues from commercial activities in 2011. Seven public broadcasters, including the three public broadcasters in Sweden, earned no commercial revenues in 2011.

**Figure 4 Commercial revenues by individual public broadcaster or organization, 2011\***



Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

<sup>3</sup> Examples of organizations of public broadcasters include the group of autonomous region public broadcasters in Spain and the public broadcasting system in the U.S. comprised of local PBS affiliates (public television) and National Public Radio (NPR) affiliates (public radio).

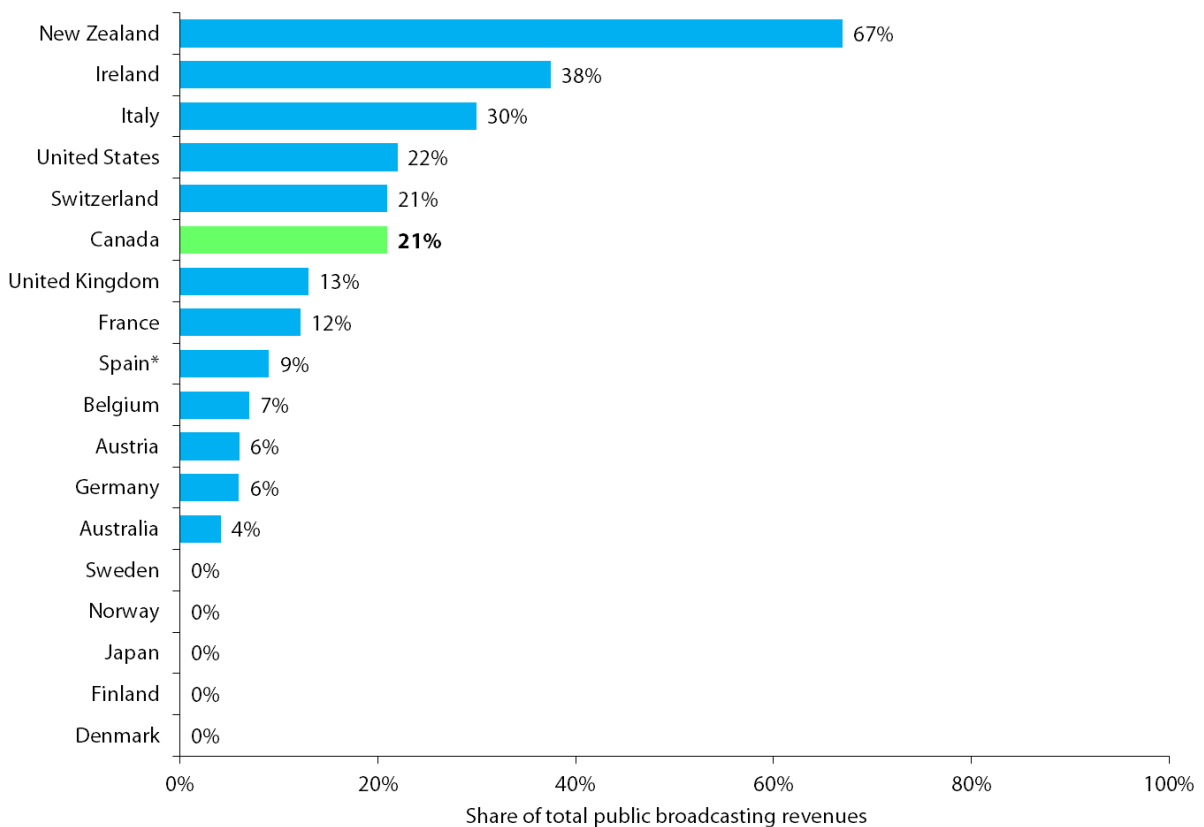


## 2.3 Advertising revenues

In this section, we confine our analysis of public broadcasters' commercial revenues to **advertising and program-sponsorship revenues**. We exclude the revenues earned from other commercial activities, such as program licensing and merchandise sales. While public broadcasters in 15 of the 18 comparison countries earned some amount of commercial revenues in 2011 (see Figure 2), a slightly smaller subset comprised of 13 countries were home to public broadcasters that earned commercial revenues from the sale of advertising airtime or program sponsorships. The Scandinavian countries – Sweden, Norway, Finland and Denmark – along with Japan were the only countries where public broadcasters did not earn any advertising and sponsorship revenues in 2011.

New Zealand's public broadcasters were the most reliant on advertising and sponsorship revenues in 2011; these sources accounted for 67% of total revenues. Advertising and sponsorship revenues were also important for public broadcasters in Ireland and Italy. For 10 of the 18 comparison countries, advertising and sponsorship revenues contributed between 4% and 22% to public broadcasters' total revenues.

**Figure 5 Advertising and sponsorship revenues as a share of total public broadcaster revenues, 2011**

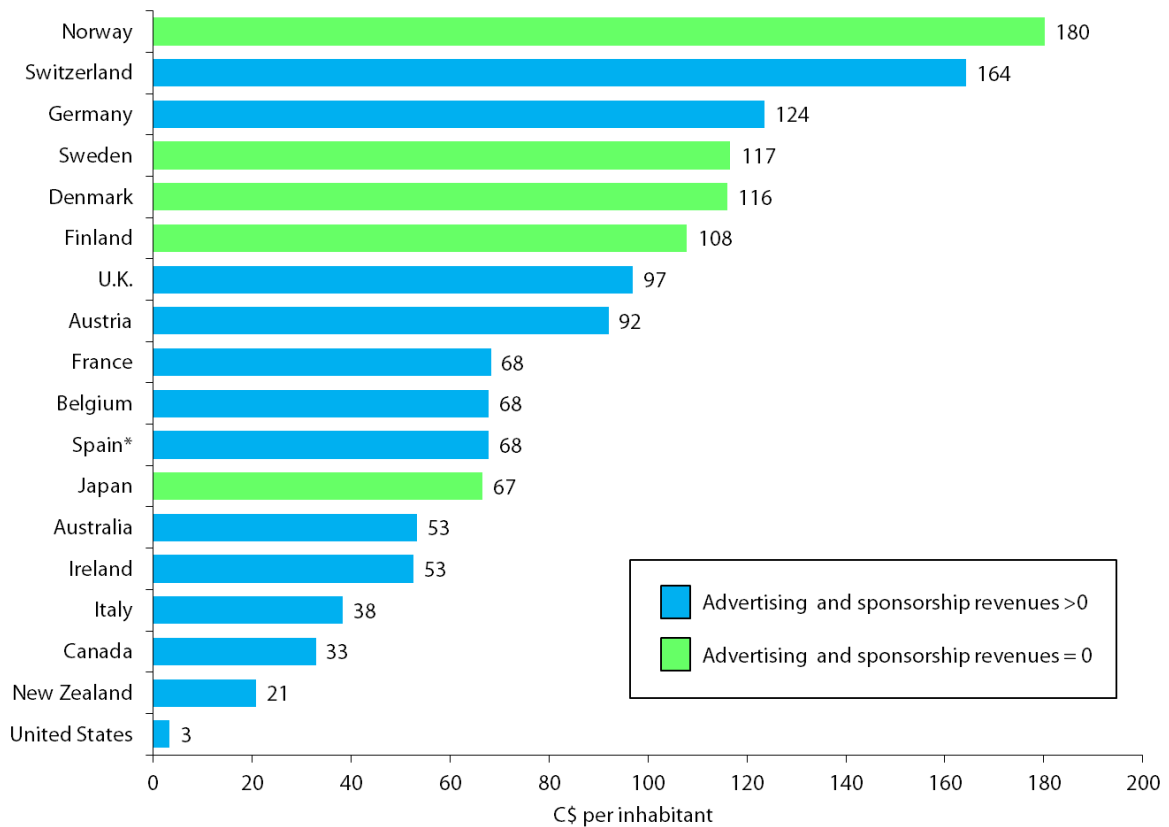


Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

\* Statistics for Spain include an estimate for the autonomous region public broadcasters.

While the countries where public broadcasters did not earn advertising and sponsorship revenues also tended to have higher rates of per capita public funding for their public broadcasters, the correlation was not perfect. Indeed, several countries with very high rates of public funding, including Switzerland, Germany, the U.K. and Austria, also permitted their public broadcasters to earn advertising revenues.

**Figure 6 Advertising and sponsorship revenues and public funding per capita, 2011**

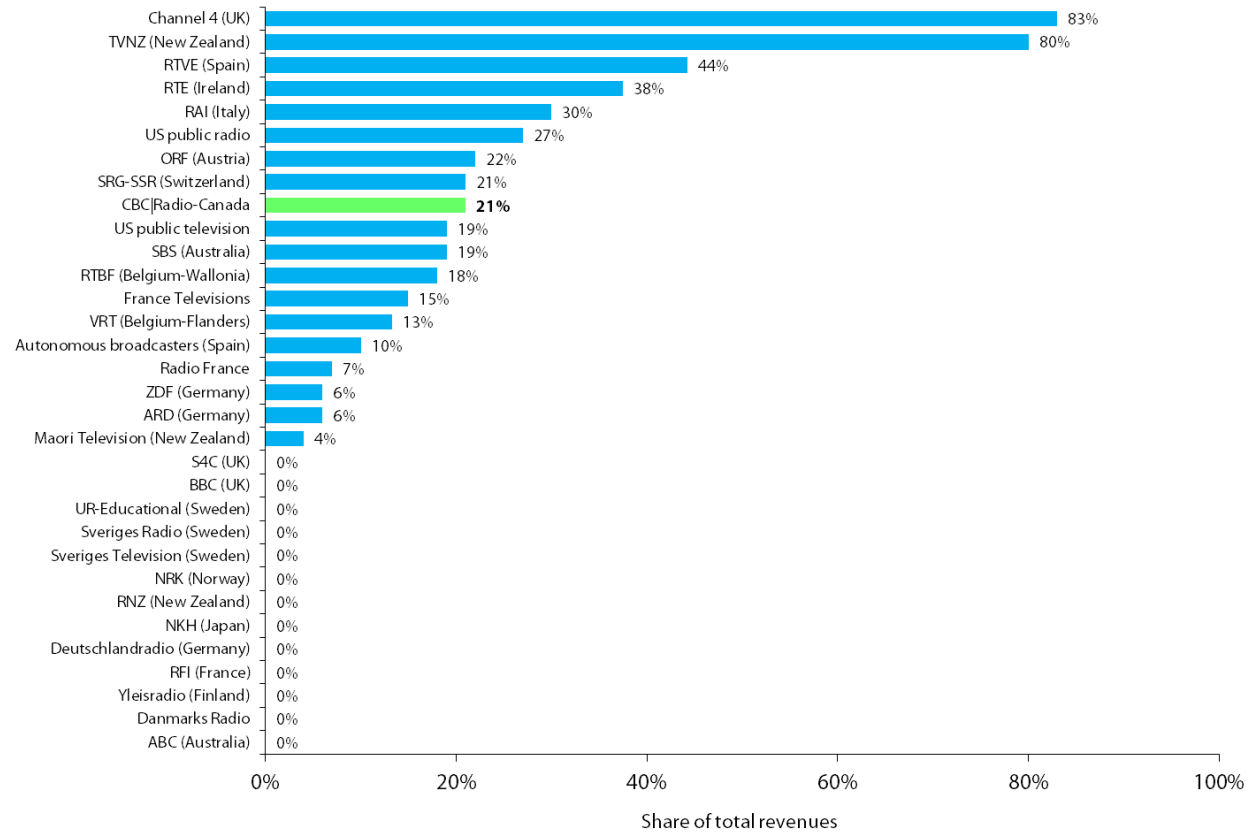


Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

\* Statistics for Spain include an estimate for the autonomous region public broadcasters.

Among the 32 individual public broadcasters in the 18 comparison countries, 19 earned advertising or sponsorship revenues in 2011. The government-owned Channel 4 in the U.K. had the highest share of revenues, 83%, from advertising and sponsorship. Advertising and sponsorship revenues also accounted for 80% of total revenues at TVNZ (New Zealand), and 30% or more of revenues at RTVE (Spain), RTE (Ireland) and RAI (Italy). For approximately one-half of public broadcasters, advertising and sponsorship revenues comprised between 1% and 27% of total revenues.

**Figure 7 Advertising and sponsorship revenues by individual public broadcaster, 2011**



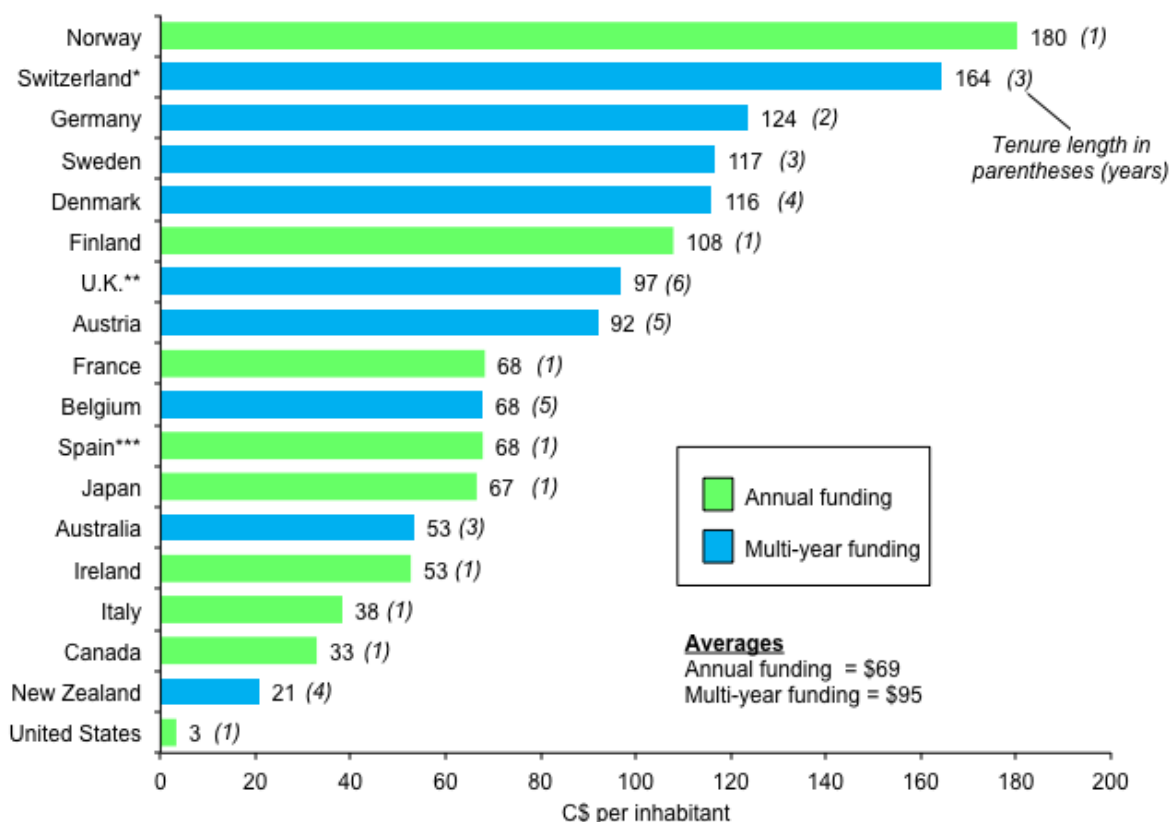
Source: Nordicity analysis of annual reports of public broadcasters; see References and Data Sources and Appendix A for additional detail.

## 2.4 Public funding by type of funding tenure

In this section, we compare the per capita public funding for public broadcasters in terms of the type of funding-settlement tenure they operate under. We classify each public broadcaster into one of two funding-settlement categories: annual or multi-year. We find that four of the top five countries in terms of per capita public funding operated with multi-year funding settlements for their public broadcasters in 2011; only Norway operated with an annual funding settlement. We also find that four of the bottom five countries in terms of per capita public funding operated with annual funding settlements in 2011; only New Zealand operated with a multi-year funding settlement.

Overall, 9 of the 18 countries maintained annual funding settlements for their public broadcasters in 2011. The average per capita funding across these nine countries was \$69. The other nine countries maintained multi-year funding settlements for their public broadcasters. Across these countries, the average rate of per capita public funding was \$95.

**Figure 8 Per capita public funding, by tenure of funding-settlement 2011**



Source: Nordicity analysis of annual reports of public broadcasters and interviews with representatives from public broadcasters; see References and Data Sources and Appendix A for additional detail: Rodney, Benson and Matthew Power, *Public Media and Political Independence: Lessons for the Future of Journalism from Around the World*, February 2011, accessed November 26, 2013, <http://www.freepress.net/sites/default/files/stn-legacy/public-media-and-political-independence.pdf>.

\* Data for Switzerland on the length of current tenure unavailable; the estimate of tenure length is based on the previous settlement tenure, 2008-2010.

\*\* Annual parliamentary approval required.

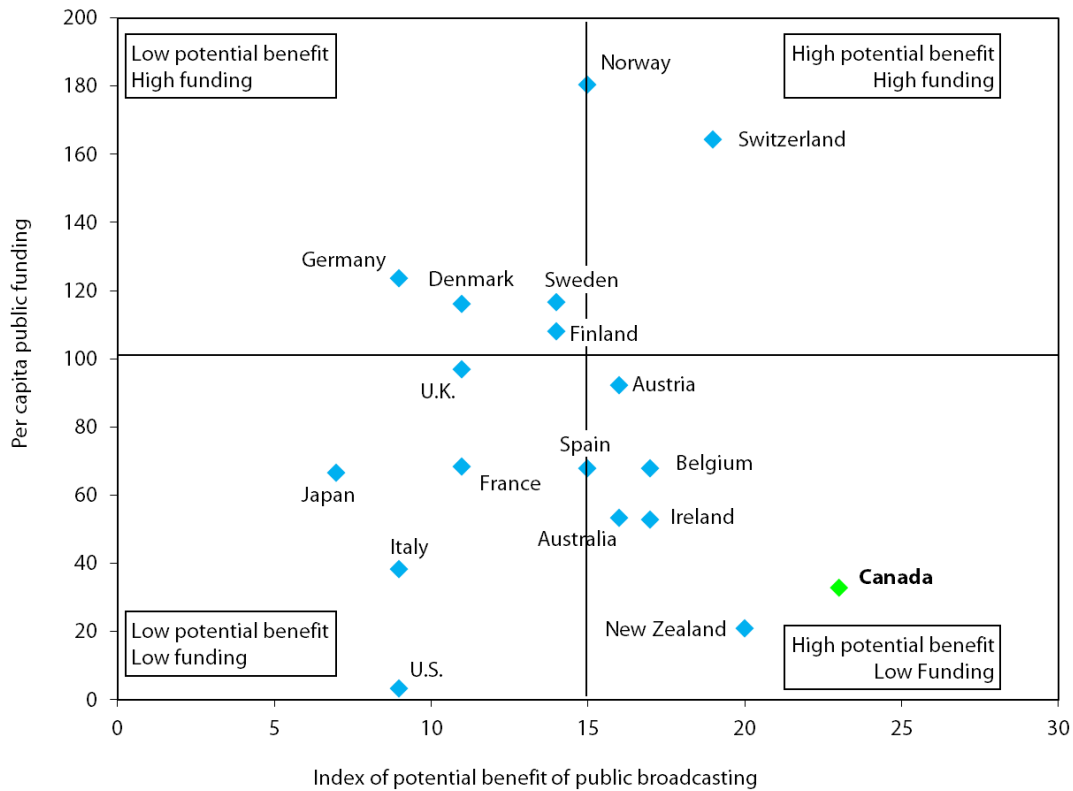
\*\*\* Per capita funding statistics for Spain include an estimate for the autonomous region public broadcasters. Tenure information applies to RTVE only.

### 3. The Potential Benefits of Public Broadcasting

As a further element in making an international comparison, Nordicity assessed the sociocultural environment in each of the 18 Western countries included in its analysis and postulated the potential benefits that a public broadcaster could provide to a country. Nordicity then rated each of the 18 Western countries in terms of how valuable these benefits would be to that country. Nordicity’s numerical scoring of these potential benefits from public broadcasting is presented in Figure 9 (below); additional details on the scoring methodology can be found in Appendix B.

We compared each country’s potential-benefits rating to its per-capita level of public funding for public broadcasting. The resulting plot (Figure 9) shows that Canada has one of the lowest levels of government financial support for public broadcasting, despite the fact that it has a sociocultural environment that is likely to generate relative high potential benefits from public broadcasting.

**Figure 9 Comparison of potential benefit and funding of public broadcasting**



Source: Nordicity analysis, PRS Group Inc. and EurodataTV.

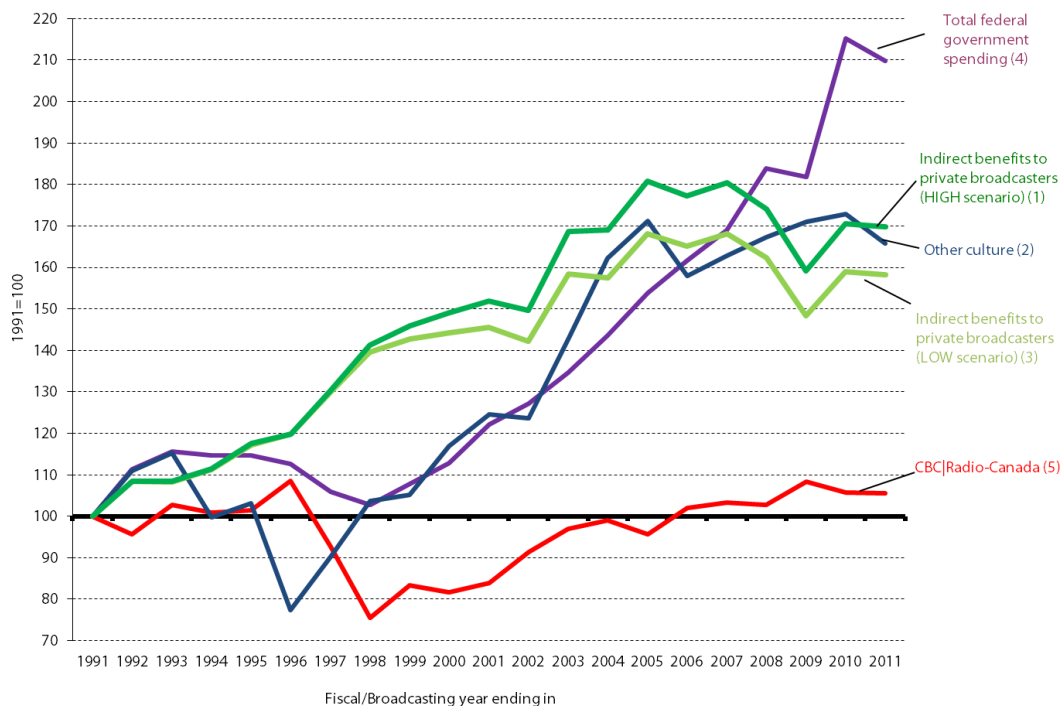
## 4. The Federal Government's Economic Support for Culture

A comparison of the trends between 1991<sup>4</sup> and 2011 in overall federal government program spending (excluding national defence and debt payments) and different types of federal government support for culture, including CBC|Radio-Canada indicates that:

- Federal government support for the **CBC|Radio-Canada** (including direct and indirect support) **increased by 5%**.
- Federal government **spending on other culture** (excluding the CBC|Radio-Canada) increased by **66%**.
- **Total federal government spending** (excluding national defence and debt payments) grew by **110%**.
- The total revenue impact of **indirect government support for private broadcasters** (under the high-impact scenario) grew by **70%**; under the low-impact scenario, the revenue impact grew by **58%**.

Note that the value of **indirect government support for private broadcasters** fell between 2007 and 2009 as a result of the drop in the advertising revenues of English-language private conventional television broadcasters during this period.

**Figure 10 Federal government expenditures and economic support of culture, 1991 = 100**



Source: Nordicity calculations based on data from Statistics Canada, *CANSIM*, matrix 325-0002; *Public Accounts for Canada*; CRTC; Donner and Lazar; and CBC|Radio-Canada.

(1) Indirect benefits to private broadcasters (HIGH scenario) are the sums of estimates for simultaneous substitution and section 19.1.  
 (2) Other culture includes all federal government expenditures on culture and broadcasting, excluding payments to CBC|Radio-Canada.  
 (3) Indirect benefits to private broadcasters (LOW scenario) are the sums of estimates for simultaneous substitution and section

<sup>4</sup> In this section we have reverted to single-year denominations, e.g., 1996, to account for different year-ends for federal government financial statistics and broadcasting sector statistics. The former have a March 31 year-end; the latter have an August 31 year-end. The term 1996, therefore, refers to statistics from the government fiscal and broadcasting years ending in 1996.

19.1.

(4) Total federal government spending includes all spending except for national defence and debt payments.

(5) CBC|Radio-Canada includes annual parliamentary appropriation and estimate of indirect benefit of section 19.1.

## References and Data Sources

- Benson, Rodney and Matthew Power. *Public Media and Political Independence: Lessons for the Future of Journalism from Around the World*. February 2011. Accessed November 26, 2013.  
<http://www.freepress.net/sites/default/files/stn-legacy/public-media-and-political-independence.pdf>.
- Donner, Arthur and Fred Lazar. *An Examination of the Financial Impacts of Canada's 1976 Amendment to Section 19.1 of the Income Tax Act (Bill C-58) on U.S. and Canadian Broadcasters*. Department of Communication. January 1979.
- Donner, Arthur and Mel Kilman. *Television Advertising and the Income Tax Act: An Economic Analysis of Bill C-58*. Prepared for the Department of Communications, November 1983.
- Donner, Arthur. *An Analysis of the Importance of U.S. Television Spillover, Bill C-58 and Simulcasting Policies for the Revenues of Canadian TV Broadcasters*. Taskforce on Broadcasting. February 1986 (mimeograph).
- Donner, Arthur. *The Financial Impacts of Section 19.1 of the Income Tax Act (Bill C-58) and Simultaneous Substitution*. Her Majesty the Queen in Right of Canada as represented by the Minister of Communications. 1990.
- Donner, Arthur and Fred Lazar. *Cable, Canadian Program Production and the Information Highway*. Discussion paper prepared for the CCTA. August 1994.
- Donner, Arthur and Fred Lazar. *The Financial Effects of Simulcasting on Canadian TV Broadcasters*. June 1997.

**Table 1 Data sources for international comparison**

Country	Data Sources
Australia	Australian Broadcasting Corporation, <i>Annual Report 2011</i> Special Broadcasting Service, <i>Annual Report 2010/11</i>
Austria	ORF, <i>Geschäftsbericht 2011</i>
Belgium	VRT, <i>Jaarverslag 2012</i> RTBF, <i>2012 En Chiffres</i>
Canadian	CBC Radio-Canada
Denmark	DR, <i>DRs årsrapport 2011</i>
Finland	YLE, <i>YLE's Year 2011</i> YLE, <i>2011 Financial Statements</i>
France	France Télévisions, <i>Rapport annuel 2011</i> Radio France, <i>Rapport d'activité 2011</i> Radio France Internationale, "Les Chiffres clés de RFI"
Germany	ZDF, "Finanzen" ARD, <i>Finanzstatistik 2012</i> GED, <i>Geschäftsbericht 2012</i> Deutschlandradio, "Ertrags- und Aufwandsrechnung für das Geschäftsjahr 2011"
Ireland	RTE, <i>Annual Report and Group Financial Statements 2012</i>
Italy	RAI Group, <i>Reports and Financial Statements 2011</i>
Japan	NHK <i>Annual Report FY2011</i> (in Japanese only)
New Zealand	NZ On Air, <i>Annual Report for year ended 30 June 2011</i> TVNZ, <i>Interim Report Financial Year 2011</i> Radio New Zealand, <i>Annual Report 2010-2011</i> Maori Television, <i>Annual Report of Maori Television for the Year Ended 30 June 2011</i>
Norway	NRK, "A gigantic Small Broadcaster," <a href="http://fil.nrk.no/informasjon/about_the_nrk/1.3698462">http://fil.nrk.no/informasjon/about_the_nrk/1.3698462</a>
Spain	RTVE, "La nueva ley de financiación de RTVE permite el patrocinio "limitado" de eventos deportivos," <a href="http://www.rtve.es/noticias/20090716/nueva-ley-financiacion-rtve-permite-patrocinio-limitado-eventos-deportivos/285196.shtml">http://www.rtve.es/noticias/20090716/nueva-ley-financiacion-rtve-permite-patrocinio-limitado-eventos-deportivos/285196.shtml</a> RTVE, "El Consejo de Ministros aprueba una rebaja de 200 millones en el presupuesto de RTVE,"



Country	Data Sources
	<p><a href="http://www.rtve.es/noticias/20111230/consejo-ministros-aprueba-rebaja-200-millones-presupuesto-rtve/486089.shtml">http://www.rtve.es/noticias/20111230/consejo-ministros-aprueba-rebaja-200-millones-presupuesto-rtve/486089.shtml</a></p> <p>CCCO, "Informe sobre el proceso de adecuación de la estructura empresarial del Ente Público Radio Televisión Madrid y sus sociedades mercantiles a la situación actual del mercado audiovisual madrileño para garantizar la prestación del servicio público radiotelevisivo autonómico a los ciudadanos madrileños y el mantenimiento del empleo: Análisis y medidas alternativas a adoptar" <a href="http://www.salvemostelemadrid.es/wp-content/uploads/2013/01/Informe-Viabilidad-CCOO.pdf">http://www.salvemostelemadrid.es/wp-content/uploads/2013/01/Informe-Viabilidad-CCOO.pdf</a></p> <p>El Confidencial, "TV y radio públicas reciben 1.100 millones más en subvenciones que al arrancar la crisis," <a href="http://www.elconfidencial.com/comunicacion/2013/07/08/tv-y-radio-publicas-reciben-1100-millones-mas-en-subvenciones-que-al-arrancar-la-crisis-124449">http://www.elconfidencial.com/comunicacion/2013/07/08/tv-y-radio-publicas-reciben-1100-millones-mas-en-subvenciones-que-al-arrancar-la-crisis-124449</a></p> <p>Accenture and Forta, "Informe sobre el papel de la Televisión Pública Autonómica en España," <a href="http://www.forta.es/Portals/0/Forta1200.pdf">http://www.forta.es/Portals/0/Forta1200.pdf</a></p> <p>Población 2006-2010. INE, Estimaciones Intercensales de Población, Número de hogares 2006-2010. INE, Encuesta de Presupuestos Familiares. Base 2006. <a href="http://www.profsuarez.com/en/prevision-hogares-2011-2015">http://www.profsuarez.com/en/prevision-hogares-2011-2015</a></p>
Sweden	<p>Sveriges Television, <i>Arsredovisning 2012</i></p> <p>Sveriges Radio, <i>Verksamhet och Arsredovisning 2011</i></p> <p>UR, <i>Verksamhet Berattelse 2012</i></p>
Switzerland	<p>SRG SSR, <i>Jahresrechnung SRG, 2011</i></p> <p>SRG SSR, "Financial information," <a href="http://www.srgssr.ch/en/about-srg-ssr/financial-information/">http://www.srgssr.ch/en/about-srg-ssr/financial-information/</a></p>
United Kingdom	<p>BBC, <i>Full Financial Statements 2010/11</i></p> <p>Channel 4, <i>Financial report and statements 2012</i></p> <p>S4C, <i>Annual Report Statement of Accounts 2011</i></p>
United States	<p>Corporation for Public Broadcasting, <i>Public Broadcasting Revenue Fiscal Year 2011</i></p> <p>National Public Radio, "Public Radio Finances," <a href="http://www.npr.org/about-npr/178660742/public-radio-finances">http://www.npr.org/about-npr/178660742/public-radio-finances</a></p>

## Appendix A - Statistics for Public Broadcasters

To construct the comparison of per-capita funding for public broadcasters, we collected and totalled the amounts of public funding in 2011 for each country's public broadcasters. We included all types of funding that were determined by some branch of the government, including television/radio licence fees and any forms of direct government aid or grants. We converted the public-funding amounts to Canadian dollars using the average exchange rate for 2011. We then divided this Canadian dollar amount by the population of each country. This process yielded a per-capita comparison of the level of public funding for public broadcasters in the 18 countries.

**Table 2 Calculation of per-capita public funding levels, 2011**

	Total public funding in home currency	Exchange rate (C\$ per foreign currency)	Total public funding in C\$	Population	Public funding per capita 2011 (\$)
Australia	A\$1,164,529,000	1.0206	1,188,518,297	22,300,000	53.30
Austria	€548,200,000	1.3767	754,706,940	8,200,000	92.04
Belgium	€512,571,000	1.3767	705,656,496	10,400,000	67.85
Canada (CBC)	\$1,137,145,000	1.0000	1,137,145,000	34,600,000	32.87
Denmark	Dkr. 3,516,200,000	0.1848	649,793,760	5,600,000	116.03
Finland	€415,415,000	1.3767	571,901,831	5,300,000	107.91
France	€3,271,798,000	1.3767	4,504,284,307	66,000,000	68.25
Germany	€7,275,146,959	1.3767	10,015,694,818	81,100,000	123.50
Ireland	€183,623,000	1.3767	252,793,784	4,800,000	52.67
Italy	€1,708,400,000	1.3767	2,351,954,280	61,500,000	38.24
Japan	¥682,010,055,000	0.0124	8,470,564,883	127,300,000	66.54
New Zealand	NZ\$116,721,000	0.7824	91,322,510	4,400,000	20.76
Norway	Nkr. 4,800,000,000	0.1765	847,200,000	4,700,000	180.26
Spain	€2,334,635,782	1.3767	3,214,093,081	47,400,000	67.81
Sweden	Skr 6,959,618,000	0.1525	1,061,341,745	9,100,000	116.63
Switzerland	Sfr. 1,175,190,000	1.1187	1,314,685,053	8,000,000	164.34
U.K.	£3,874,459,000	1.5861	6,145,279,420	63,400,000	96.93
U.S.	US\$1,058,116,000	0.9891	1,046,549,946	316,700,000	3.30
			<b>Average</b>		<b>\$81.62</b>

Source: See References and Data Sources for list of data sources; exchange rates from Bank of Canada; population data from Google.com.

**Notes:**

Australia includes funding for ABC and SBS.

Belgium includes funding for Flemish-language public broadcaster (VRT) and French-language public broadcaster (RTBF).

Germany includes public funding for ZDF, ARD, Deutschlandradio and other public broadcasters in the lander.

Spain includes public funding for RTE and estimates for public funding of public broadcasters for the autonomous regions.

U.K. includes public funding for BBC and S4C.

**Table 3 Public broadcasters' revenues, 2011**

Country	Broadcaster	Home currency	Revenues (home currency)			Share of total revenues	
			Total	Commercial revenues	Advertising and sponsorship revenues	Commercial revenues	Advertising and sponsorship revenues
Australia	ABC	A\$	1,136,876,000	144,492,000	0	13%	0%
	SBS	A\$	301,833,000	76,404,000	57,248,000	25%	19%
	Total	A\$	1,438,709,000	220,896,000	57,248,000	15%	4%
Austria	ORF	€	996,900,000	216,700,000	216,700,000	22%	22%
Belgium			420,100,000				
	VRT	€		92,100,000	54,900,000	22%	13%
	RTBF	€	320,243,000	87,090,000	0	27%	0%
Total	€	740,343,000	179,190,000	54,900,000	24%	7%	
Canada	CBC Radio-Canada	\$	1,799,512,000	614,254,000	372,628,000	34%	21%
Denmark	Danmarks Radio	Dkr.	3,866,300,000	0	0	0%	0%
Finland	Yleisradio	€	432,464,000	13,127,000	0	3%	0%
France	France Televisions	€	2,887,700,000	423,700,000	423,700,000	15%	15%
	Radio France	€	632,728,000	64,130,000	41,337,000	10%	7%
	RFI	€	252,500,000	0	0	0%	0%
	Total	€	3,772,928,000	487,830,000	465,037,000	13%	12%
Germany	ZDF	€	2,057,100,000	315,300,000	125,800,000	15%	6%
	ARD	€	6,360,300,000	1,019,100,000	381,618,000	16%	6%
	Deutschlandradio	€	218,273,682	26,126,723	0	12%	0%
	Total	€	8,635,673,682	1,360,526,723	507,418,000	16%	6%
Ireland	RTE	€	350,880,000	167,257,000	131,975,000	48%	38%
Italy	RAI	€	2,973,900,000	1,116,400,000	883,900,000	38%	30%
Japan			694,576,811,000				
	NHK	¥ 000s	0	9,131,956,000	0	1%	0%
New Zealand	TVNZ	NZ\$	377,896,000	340,416,000	302,723,000	90%	80%
	RNZ	NZ\$	38,424,000	2,719,000	0	7%	0%
	Maori Television	NZ\$	36,438,000	2,091,000	1,598,000	6%	4%
	Total	NZ\$	452,758,000	345,226,000	304,321,000	76%	67%
Norway	NRK	Nkr.	5,000,000,000	0	0	0%	0%
Spain	RTVE	€	1,200,000,000	550,000,000	0	46%	0%
	Regional broadcasters	€	943,500,000	239,770,000	192,500,000	25%	20%
	Total	€	2,143,500,000	789,770,000	192,500,000	37%	9%
Sweden	Sveriges Television	Skr.	4,209,000,000	0	0	0%	0%
	Sveriges Radio	Skr.	2,513,328,000	0	0	0%	0%
	UR-Educational	Skr.	293,717,000	0	0	0%	0%
	Total	Skr.	123,785,307,657	0	0	0%	0%
Switzerland	SRG-SSR	Sfr.	1,645,403,000	388,172,000	338,300,000	24%	21%
U.K.	BBC	£	4,993,000,000	1,495,200,000	0	30%	0%
	Channel 4	£	941,400,000	941,400,000	778,900,000	100%	83%
	S4C	£	93,060,000	2,483,000	2,483,000	3%	3%
	Total	£	6,027,460,000	2,439,083,000	781,383,000	40%	13%
U.S.	US public television	US\$	1,773,948,000	613,079,000	337,413,000	35%	19%
	US public radio	US\$	1,061,978,000	574,204,000	288,847,000	54%	27%
	Total	US\$	2,835,926,000	1,187,283,000	626,260,000	42%	22%

Source: See References and Data Sources for a list of data sources.

**Table 4 Public broadcasters' operating expenditures, 2011**

Country	Broadcaster	Home currency	Operating expenditures (home currency)			Share of total operating expenditures
			Total	Television operations	Radio operations	Television operations
Australia	ABC	A\$	1,134,969,000	608,343,384	215,644,110	54%
	SBS	A\$	304,496,000	--	--	--
	Total	A\$	1,439,465,000	--	--	--
Austria	ORF	€	987,900,000	--	--	--
Belgium	VRT	€	420,400,000	244,900,000	90,100,000	58%
	RTBF	€	316,706,000	--	--	--
	Total	€	737,106,000	--	--	--
Canada	CBC Radio-Canada	\$	1,834,219,000	1,341,556,505	338,909,526	73%
Denmark	Danmarks Radio	Dkr.	3,251,300,000	--	--	--
Finland	Yleisradio	€	433,904,000	164,000,000	65,000,000	37%
France	France Televisions	€	2,568,800,000	2,568,800,000	0	100%
	Radio France	€	627,902,000	0	627,902,000	0%
	RFI	€	--	--	--	--
	Total	€	--	--	--	--
Germany	ZDF	€	1,984,900,000	--	--	--
	ARD	€	--	--	--	--
	Deutschlandradio	€	223,802,526	--	223,802,526	0%
	Total	€	--	--	--	--
Ireland	RTE	€	363,507,000	205,503,000	58,905,000	57%
Italy	RAI	€	2,278,600,000	--	--	--
Japan	NHK	¥ 000s	--	--	--	--
New Zealand	TVNZ	NZ\$	346,085,000	346,085,000	0	100%
	RNZ	NZ\$	13,987,000	0	13,254,000	0%
	Maori Television	NZ\$	36,210,000	36,210,000	0	100%
	Total	NZ\$	395,549,000	382,295,000	13,254,000	97%
Norway	NRK	Nkr.	--	--	--	--
Spain	RTVE	€	--	--	--	--
	Regional broadcasters	€	--	--	--	--
	Total	€	--	--	--	--
Sweden	Sveriges Television	Skr.	4,167,000,000	4,167,000,000	0	100%
	Sveriges Radio	Skr.	2,516,981,000	0	2,516,981,000	0%
	UR-Educational	Skr.	--	--	--	--
	Total	Skr.	--	--	--	--
Switzerland	SRG-SSR	Sfr.	1,614,950,000	--	--	--
U.K.	BBC	£	4,602,300,000	2,375,400,000	638,900,000	52%
	Channel 4	£	917,400,000	883,100,000	0	93%
	S4C	£	99,147,000	93,858,000	--	95%
	Total	£	5,618,847,000	3,352,358,000	638,900,000	60%
U.S.	US public television	US\$	--	--	--	--
	US public radio	US\$	--	--	--	--
	Total	US\$	--	--	--	--

Sources: See References and Data Sources for a list of data sources.

In Table 5 we provide data on public broadcasters' new-platform revenues and expenses. We note that new-platform data were only available from public reports for a small sample of the 32 public broadcasters included in our research. This small sample provides us with partial data on new-platform revenues or expenses in 9 of the 18 comparison countries. We also note that the precise definition of new-platform operations can vary from broadcaster to broadcaster. For example, public broadcasters' definitions of online or Internet revenues or expenses may differ. As such, the new-platform statistics may not be directly comparable across broadcasters.

**Table 5 Public broadcasters' new-platform revenues and expenses, 2011**

Country	Broadcaster	Home currency	Operating revenues		Operating expenditures	
			Amount (home currency)	Share of total operating revenues	Amount (home currency)	Share of total operating expenditures
Australia	ABC	A\$	--	--	19,110,320	1.7%
	SBS	A\$	--	--	--	--
	Total	A\$	--	--	--	--
Austria	ORF	€	--	--	--	--
Belgium	VRT	€	--	--	14,500,000	3.4%
	RTBF	€	--	--	--	--
	Total	€	--	--	--	--
Canada	CBC Radio-Canada	\$	8,376,000	0.5%	--	--
Denmark	Danmarks Radio	Dkr.	--	--	--	--
Finland	Yleisradio	€	--	--	21,000,000	5.0%
France	France Televisions	€	--	--	--	--
	Radio France	€	--	--	--	--
	RFI	€	--	--	--	--
	Total	€	--	--	--	--
Germany	ZDF	€	--	--	--	--
	ARD	€	--	--	--	--
	Deutschlandradio	€	--	--	--	--
	Total	€	--	--	--	--
Ireland	RTE	€	17,203,000	4.9%	16,368,000	4.5%
Italy	RAI	€	15,700,000	0.5%	13,100,000	0.6%
Japan	NHK	¥ 000s	295,121,000	0.04%	--	--
New Zealand	TVNZ	NZ\$	--	--	--	--
	RNZ	NZ\$	--	--	--	--
	Maori Television	NZ\$	--	--	--	--
	Total	NZ\$	--	--	--	--
Norway	NRK	Nkr.	--	--	--	--
Spain	RTVE (Spain)	€	--	--	--	--
	Regional broadcasters	€	--	--	--	--
	Total	€	--	--	--	--
Sweden	Sveriges Television	Skr.	--	--	--	--
	Sveriges Radio	Skr.	--	--	--	--
	UR-Educational	Skr.	--	--	--	--
	Total	Skr.	--	--	--	--
Switzerland	SRG-SSR	Sfr.	--	--	--	--
U.K.	BBC	£	--	--	194,200,000	4.2%
	Channel 4	£	52,800,000	5.6%	46,300,000	5.0%
	S4C	£	--	--	--	--
	Total	£	--	--	--	--
U.S.	US public television (2008)	US\$	--	--	--	--
	US public radio (2008)	US\$	--	--	--	--
	Total (2008)	US\$	--	--	--	--

Sources: See References and Data Sources for a list of data sources.

## Appendix B - Potential Benefits Analysis

As a further element in making an international comparison, we postulated the potential benefits to a country that a public broadcaster can provide, and rated the 18 Western countries as to how valuable these benefits would be to that country. We then compared each country's rating in this benefits calculation to its per-capita level of public funding for public broadcasting. This comparison helped us identify which Western countries are possibly under-funding their public broadcasters, when the public broadcaster could be delivering substantial benefits in that country's particular socio-political circumstances.

This benefits assessment required a broad review of the social, political and cultural environment, as well as the media-industry structure in each country. While this assessment was qualitative in many respects, it was systematic in terms of comparative analysis. We selected indicators that could be considered indicative of the relevant socio-political conditions for each country. For each indicator we used a simple five-grade scale (high to low) for rating each country. While this approach did not eliminate subjectivity, it did force a discipline to the ranking of the countries.

We undertook basic research of some 18 countries to compare them to Canada along the following four criteria and associated indicators. For each indicator we were able to obtain specific data in order to establish the scale for a relative scoring for each country.

Criteria	Indicators
1. Promotion of culture and common values	<ul style="list-style-type: none"> <li>Population density</li> <li>Number of broadcasting languages – number of official languages broadcast by the public broadcasting services (note: must be rough equivalency in broadcast, not just occasional minority programming broadcast)</li> <li>Ethnic-diversity challenges (third-party risk ratings)</li> </ul>
2. Relative size of domestic language market	<ul style="list-style-type: none"> <li>Population of country or population of various official language groups within a single country</li> </ul>
3. Proximity to a larger country with the same language	<ul style="list-style-type: none"> <li>Countries bordering countries of similar language with a much larger economy</li> <li>Countries whose mother tongue is English (which are subject to greater pressure from American programming, even if not bordering on the U.S.)</li> </ul>
4. Audience appeal of indigenous programming	<ul style="list-style-type: none"> <li>The number of indigenous programs among the top ten programs</li> </ul>

Based on these four criteria, we rated each country against six different indicators on a five-point scale. The details of the scoring systems and the data used to derive the scores are presented below. In summary:

- A rating of **high** and a numerical score of **five** was assigned when the indicators pointed to an environment where a public broadcaster could potentially generate relatively high benefits to its country's citizens.
- A rating of **medium** and a numerical score of **three** was assigned when the indicators pointed to an environment where a public broadcaster could potentially generate a relatively moderate level of benefits.
- A rating of **low** and a numerical score of **one** was assigned when the indicators pointed to an environment where a public broadcaster could generate relatively modest benefits.

Countries could also obtain scores of two or four.

We did not weight the indicators or the criteria in terms of level of importance, and recognize that not doing so is somewhat arbitrary. Nevertheless, this approach provides a systematic basis for gauging and comparing each country's environment, and thereby the relative benefit that a public broadcaster could bring to a country.

**Table 6 Rating scale for population density**

Potential benefit	Rating	Population density Number of inhabitant per square kilometre
High	5	<25
	4	25 to 50
	3	50 to 75
	2	75 to 100
Low	1	>100

**Table 7 Rating scale for the number of broadcasting languages**

Potential benefit	Rating	Number of broadcasting languages
High	5	3 or more
	3	2
Low	1	1

**Table 8 Rating scale for the level of ethnic-diversity challenges**

Potential benefit	Rating	PRS Group Inc. rating of ethnic tensions
High	5	1.0 to 1.9
	4	2.0 to 2.9
	3	3.0 to 3.9
	2	4.0 to 4.9
Low	1	5.0 to 6.0

Note: PRS Group Inc. assigned each country a rating on a six-point scale, based on the level of ethnic tensions within the country. Please see <http://www.prsgroup.com> for more information

**Table 9 Rating scale for the size of the domestic language market**

Potential benefit	Rating	Size of domestic language market
High	5	< 10 million
	4	11 million to 50 million
	3	51 million to 100 million
	2	101 million to 200 million
Low	1	>201 million

**Table 10 Rating scale for proximity to a larger country with the same language and/or broadcast programming in English**

Potential benefit	Rating	Proximity situations
High	5	The country is adjacent to a larger country with which it shares the same language.
	4	The country is adjacent to a larger country with which it shares one official language.
	3	The country is not adjacent to a larger country with which it shares a language, but it does broadcast programming in English and thus faces competition from imported American programming.
	2	--
Low	1	The country is not adjacent to a larger country with which it shares a language.

**Table 11 Rating scale for audience appeal of indigenous programming**

Potential benefit	Rating	Number of indigenous programs within the top ten programs
High	5	0 to 1.9
	4	2.0 to 3.9
	3	4.0 to 5.9
	2	6.0 to 7.9
Low	1	8.0 to 10



**Table 12 Potential-benefits analysis data and ratings**

	Population Density (inhabitants per square kilometre)		Multiple number of broadcasting languages		Ethnic diversity challenges (2011)	
	Data	Score	Data	Score	Data	Score
Australia	2.9	5	<b>1 language:</b> English	1	PRS Group rating = 4.0	2
Austria	97.8	2	<b>1 language:</b> German	1	PRS Group rating = 4.0	2
Belgium	340.7	1	<b>2 languages:</b> French and Dutch	3	PRS Group rating = 3.0	3
Canada	3.5	5	<b>2 languages:</b> English and French	3	PRS Group rating = 3.5	3
Denmark	129.9	1	<b>1 language:</b> Danish	1	PRS Group rating = 4.0	2
Finland	15.7	5	<b>1 language:</b> Finnish. Swedish speaking minority (8%)	1	PRS Group rating = 6.0	1
France	120.7	1	<b>1 language:</b> French	1	PRS Group rating = 2.5	4
Germany	227.2	1	<b>1 language:</b> German	1	PRS Group rating = 4.0	2
Ireland	68.3	3	<b>2 languages:</b> English Irish	3	PRS Group rating = 5.5	1
Italy	204.2	1	<b>1 language:</b> Italian	1	PRS Group rating = 4.5	2
Japan	336.9	1	<b>1 language:</b> Japanese	1	PRS Group rating = 5.5	1
New Zealand	16.4	5	<b>1 language:</b> English	1	PRS Group rating = 3.5	3
Norway	14.5	5	<b>1 language:</b> Norwegian (small Sami minority)	1	PRS Group rating = 4.5	2
Spain	94.5	2	<b>3 languages:</b> Spanish, Catalan (17%), Galician (7%), and Basque (2%).	5	PRS Group rating = 4.0	2
Sweden	20.2	5	<b>1 language:</b> Swedish. (Some broadcasting in Sámi)	1	PRS Group rating = 5.0	1
Switzerland	193.8	1	<b>3 languages:</b> German, French and Italian.	5	PRS Group rating = 4.0	2
U.K.	259.0	1	<b>1 language:</b> English	1	PRS Group rating = 4.0	2
U.S.	32.9	4	<b>1 language:</b> English	1	PRS Group rating = 5.0	1

Source: Nordicity analysis and PRS Group Inc.

**Table 13 Potential-benefits analysis data and ratings (continued)**

	Relative size of domestic language market (population)		Proximity to a larger country with the same language, and/or broadcast programming in English		Audience appeal of indigenous programming	
	Data	Score	Data	Score	Data	Score
Australia	22,300,000	4	No, but faces competition from imported English-language programming	3	<b>9 out of 10</b>	1
Austria	8,200,000	5	Yes. Germany	5	<b>10 out of 10</b>	1
Belgium	10,400,000	5	Yes. France (for French); Netherlands (for Dutch/Flemish)	4	<b>10 out of 10</b>	1
Canada	34,600,000	4	Yes. United States	5	English-speaking Canada: 0/8 (excludes Olympics); French-speaking Canada: 10/10; <b>Average (3/4 and 1/4): 2.3</b>	4
Denmark	5,600,000	5	No.	1	<b>10 out of 10</b>	1
Finland	5,300,000	5	No.	1	<b>10 out of 10</b>	1
France	66,000,000	3	No.	1	<b>8 out of 10</b>	1
Germany	81,100,000	3	No.	1	<b>9 out of 9</b> (Excludes Eurovision)	1
Ireland	4,800,000	5	Yes. England	4	<b>7.5 out of 9</b> (1 UK coproduction; excludes Eurovision)	1
Italy	61,500,000	3	No.	1	<b>9.5 out of 10</b> (1 Germany coproduction;	1
Japan	127,300,000	2	No.	1	<b>10 out of 10</b>	1
New Zealand	4,400,000	5	Yes. Australia.	5	<b>8 out of 10</b>	1
Norway	4,700,000	5	No.	1	<b>9 out of 10</b>	1
Spain	47,700,000	4	No.	1	<b>7 out of 8</b> (Excludes Olympics and Eurovision)	1
Sweden	9,100,000	5	No.	1	<b>7.5 out of 9</b> (1 Norway coproduction; excludes Eurovision)	1
Switzerland	8,000,000	5	Yes. Germany, Italy, France.	5	<b>10 out of 10</b>	1
U.K.	63,400,000	3	No.	3	<b>7 out of 8</b> (Excludes Olympics)	1
U.S.	316,700,000	1	No.	1	<b>8 out of 8</b> (Excludes Olympics)	1

Source: Nordicity analysis and EurodataTV.

**Table 14 Potential-benefits analysis aggregate ratings**

	Population Density	Multiple number of broadcasting languages	Ethnic diversity challenges	Relative size of domestic language market	Proximity to a larger country with the same language, and/or broadcast programming in English	Audience appeal of indigenous programming	Aggregate rating
Australia	5	1	2	4	3	1	<b>16</b>
Austria	2	1	2	5	5	1	<b>16</b>
Belgium	1	3	3	5	4	1	<b>17</b>
Canada	5	3	3	4	4	4	<b>23</b>
Denmark	1	1	2	5	1	1	<b>11</b>
Finland	5	1	1	5	1	1	<b>14</b>
France	1	1	4	3	1	1	<b>11</b>
Germany	1	1	2	3	1	1	<b>9</b>
Ireland	3	3	1	5	4	1	<b>17</b>
Italy	1	1	2	3	1	1	<b>9</b>
Japan	1	1	1	2	1	1	<b>7</b>
New Zealand	5	1	3	5	5	1	<b>20</b>
Norway	5	1	2	5	1	1	<b>15</b>
Spain	2	5	2	4	1	1	<b>15</b>
Sweden	5	1	1	5	1	1	<b>14</b>
Switzerland	1	5	2	5	5	1	<b>19</b>
U.K.	1	1	2	3	3	1	<b>11</b>
U.S.	4	1	1	1	1	1	<b>9</b>

Source: Nordicity analysis.

## Appendix C - Estimation of Annual Revenue Impact of Simultaneous Substitution

The revenue impact of simultaneous substitution has been the subject of several previous analyses by Arthur Donner and various co-authors.

- In 1983, Donner and Mel Kilman published the first estimate of the revenue impact of simultaneous substitution. In that report, Donner and Kilman estimated that simultaneous substitution generated \$21.1 million in net advertising revenues for Canadian television stations in 1982.<sup>5</sup> This amount represented 3.1% of total advertising revenues of private television broadcasters in that year.
- In 1986, Donner prepared an update to his estimate of simultaneous substitution's revenue impact. He found that the revenue impact of simultaneous substitution had grown to \$52.7 million in 1984.<sup>6</sup>
- In 1990, the Department of Communications commissioned Donner to prepare another update on the revenue impact of simultaneous substitution. Donner concluded that simultaneous substitution generated an estimated \$67.3 million in incremental advertising revenues for Canadian broadcasters in 1988.<sup>7</sup>
- In 1994, the Canadian Cable Television Association commissioned Donner and Fred Lazar to again estimate the revenue impact of simultaneous substitution. Donner and Lazar found that simultaneous substitution generated incremental advertising revenues of between \$114 million and \$159 million during the 1992/93 broadcasting year.<sup>8</sup>
- Donner's most recent work on this topic was in 1997. In that year he and Fred Lazar derived a single estimate of \$147.6 million for the dollar value of airtime sales during the 1996/97 broadcasting year, which were transferred to Canadian **English-language television broadcasters** because of simultaneous substitution.<sup>9</sup>

**Table 15 Estimated values of simultaneous substitution**

	1982	1984	1988	1992/93	1996/97
Incremental revenue impact of simultaneous substitution (\$ millions)	21	52.7	67.3	114 to 159	147.6

Source: 1982 data from Donner and Kilman, 1983; 1984 data from Donner, 1986; 1988 data from Donner, 1990; 1992/93 data from Donner and Lazar, 1994; 1997 data from Donner and Lazar, 1997.

For this report, we sought to generate an update to Donner and Lazar's 1996/97 estimate of the revenue impact of simultaneous substitution by extrapolating it to the 1990/91-to-2010/11 period.<sup>10</sup> Donner and Lazar used a bottom-up approach that calculated the tuning transferred to Canadian broadcasters due to simulcast programs, and married this with advertising rates to arrive at a dollar estimate of airtime sales for simultaneous substitution. For our extrapolation, we used what could be considered a top-down approach. In other words, we examined the share of overall conventional television advertising revenues in 1996/97 that could be attributed back to simultaneous substitution, and then applied this share to the

<sup>5</sup> Arthur Donner and Mel Kilman, *Television Advertising and the Income Tax Act: An Economic Analysis of Bill C-58*, prepared for the Department of Communications, November 1983.

<sup>6</sup> Arthur Donner, *An Analysis of the Importance of U.S. Television Spillover, Bill C-58 and Simulcasting Policies for the Revenues of Canadian TV Broadcasters*, Taskforce on Broadcasting, February 1986 (mimeograph).

<sup>7</sup> Arthur Donner, *The Financial Impacts of Section 19.1 of the Income Tax Act (Bill C-58) and Simultaneous Substitution*, (Her Majesty the Queen in Right of Canada as represented by the Minister of Communications, 1990).

<sup>8</sup> Arthur Donner and Fred Lazar, *Cable, Canadian Program Production and the Information Highway*, discussion paper prepared for the CCTA, August 1994.

<sup>9</sup> Arthur Donner and Fred Lazar, *The Financial Effects of Simulcasting on Canadian TV Broadcasters*, June 1997.

<sup>10</sup> This extrapolation included a back-cast for the years, 1990/91 to 1995/96.

television broadcasting markets during the 1997/98-to-2010/11 period. Along the same lines, we also prepared a back-cast for 1990/91 to 1995/96.

In doing this, however, we developed two scenarios. In one scenario, the *status-quo* scenario, we assumed that the extent of simulcasting on Canadian television screens did not change between 1996/97 and 2010/11. We also developed a second *simulcasting-growth* scenario in which we incorporated an assumption that simulcasting activity increased between 1996/97 and 2003/04. For the back-cast we only applied the status quo scenario; we assumed no changes in simulcasting.

In 1996/97, total advertising revenues among English-language private conventional television licensees were \$1,333 million. Simultaneous substitution revenues of \$147.6 million represented 11.1% of the total advertising sales in the English-language private conventional television market. Donner and Lazar's 1996/97 estimate included the incremental revenues earned by CBC|Radio-Canada affiliates and CBC|Radio-Canada; but the amounts were small, \$1.5 million and \$630,000, respectively. Removing the small amount attributed to CBC|Radio-Canada, reduces the 1996/97 amount to \$147.0 million, or approximately 11.0% of total English-language private conventional advertising sales.

We used an analogous approach for the back-cast of the status quo scenario. We estimated the annual value of simultaneous substitution by calculating 11.0% of annual levels of the advertising revenues of English-language private conventional broadcasters.

Between 1996/97 and 2010/11, advertising revenues in the English-language private conventional television market grew by 23.8% to a total of \$1,650 million. To derive the status-quo estimate, we assumed that simultaneous substitution revenues continued to represent 11.0% of the relevant advertising market between 1997/98 and 2010/11. With this assumption, the revenue impact of simultaneous substitution grew from \$159 million in 1997/98 to \$182 million in 2010/11. In effect, under this scenario, the annual revenue impact of simultaneous substitution grew in step with overall television advertising sales in the English-language private conventional television market.

While the status-quo estimate is straight forward and very plausible, there are indications that there was more simulcasting on Canadian television in 2010/11 than there was in 1996/97. To gauge and quantify the increase in simultaneous substitution, we enlisted CBC|Radio-Canada Research to prepare sample schedules from November 1997 and November 2003. Based on these schedules, CBC|Radio-Canada Research tabulated the total number of hours of simulcast American programming in Canada's two major English-language television markets – Toronto and Vancouver – during a four-week period in November 1997 and November 2003 (Table 16).

The comparison of simulcasting in these two markets showed the number of hours of simulcasting in the Toronto market increased by 16%; in the Vancouver market it increased by 19%. In both markets, a large part of the increase in simulcasting can be traced back to the entry of new broadcasters into the respective markets. In Toronto, SunTV entered the market; while in Vancouver, City-TV, A-Channel, and Channel M have come on air since 1997.

A 17% increase in simulcast hours of programming does not necessarily translate into a 17% increase in advertising revenues from simultaneous substitution. This increased programming should increase supply somewhat and put some downward pressure on average airtime rates. With this in mind, we have used an assumption of 12% (approximately 70% of the total rate of growth) to represent the incremental advertising revenues brought in by more simultaneous substitution activity in 2003/04. To estimate the incremental impact for the interim years – 1997/98 to 2002/03 – we assumed a scenario of linear growth.

Under this *simulcasting-growth* scenario, then, the annual revenue impact of simultaneous substitution was

\$162 million in 1997/98, and grew to \$199 million in 2003/04. By 2003/04, it was 12% higher than the status-quo estimate of \$177 million. From 2003/04 to 2009/10, we assumed that there was no further growth in broadcasters' simulcasting activity. With this assumption, the annual revenue impact of simultaneous substitution grew to a peak of \$212 million in 2006/07, before decreasing to \$204 million in 2010/11 – or 12.0% higher than the status quo estimate for 2010/11.

**Table 16 Comparison of simulcast activity in the Toronto and Vancouver markets, 1997 and 2003**

	Hours of simulcast American television programs during a four-week sample period		Percentage change
	November 1996	November 2003	
<b>Toronto</b>			
Global Television	70.0	62.5	(11%)
CTV	65.5	62.0	(5%)
CBLT-CBC	2.0	0.0	(100%)
City-TV	15.5	20.5	32%
New VR / A-Channel	20.5	38.0	85%
CHCH	57.0	60.5	(6%)
CFMT / Omni2	8.0	10.0	25%
Sun TV	--	23.0	n.a.
<b>Total</b>	<b>238.5</b>	<b>276.5</b>	<b>16%</b>
<b>Vancouver</b>			
Global	81.0	65.5	(19%)
CIVT (VTV / CTV)	46.5	61.5	32%
CBUT-CBC	2.0	0.0	(100%)
CHEK / CH Vancouver Island	35.0	77.5	121%
City-TV	--	18.0	n.a.
CIVI / A Channel	--	21.0	n.a.
Channel M	--	19.5	n.a.
BCTV	56.5	--	n.a.
<b>Total</b>	<b>221.0</b>	<b>263</b>	<b>19%</b>
<b>Grand total</b>	<b>459.5</b>	<b>539.5</b>	<b>17%</b>

Source: CBC|Radio-Canada Research.  
n.a. – not applicable

**Table 17 Estimates of revenue impact of simultaneous substitution (\$ millions unless indicated otherwise)**

	Back-cast						Base year	Extrapolation													
	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Total advertising revenues in English-language private conventional television market	1,042	1,129	1,115	1,143	1,203	1,244	1,333	1,445	1,459	1,468	1,493	1,458	1,611	1,614	1,683	1,693	1,717	1,679	1,520	1,650	1,650
Simultaneous substitution revenues - Status quo scenario (11% of total advertising revenues in English-language private conventional market)	115	125	123	126	133	137	147	159	161	162	165	161	178	178	186	187	189	185	168	182	182
Simultaneous substitution revenues - Simulcast-growth scenario	115	125	123	126	133	137	147	162	166	170	176	175	196	199	208	209	212	207	188	204	204
Incremental revenues in simulcast-growth scenario in relation to status quo scenario	0%	0%	0%	0%	0%	0%	0%	1.7%	3.4%	5.1%	6.9%	8.6%	10.3%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%

Source: Nordicity calculations based on Donner and Lazar methodology, and Donner and Lazar results for 1996/97.

## Appendix D - Estimation of Value of Section 19.1

Like simultaneous substitution, the economic impact of section 19.1 of the *Income Tax Act* has been the subject of several previous analyses by Arthur Donner and various co-authors.

- In 1979, Donner and Fred Lazar prepared the first estimate of the monetary value of section 19.1. In that report, Donner and Lazar found that section 19.1 increased Canadian broadcasters' advertising sales by \$16.2 million in 1977 and \$23.2 million in 1978.<sup>11</sup>
- In 1983, Donner and Mel Kilman published an updated estimate for the economic value of section 19.1. They estimated that section 19.1 led to between \$28.2 million and \$32.7 million in additional advertising revenues for Canadian broadcasters in 1982.<sup>12</sup>
- In 1986, Donner prepared another update. He estimated that section 19.1 had generated \$35.8 million to \$41.8 million in additional revenues in 1984.<sup>13</sup>
- Donner's most recent work on this topic was in 1990. In that year, the Department of Communications commissioned Donner to prepare a report on the economic value of simultaneous substitution and section 19.1. Donner concluded that section 19.1 generated an estimated \$67.3 million in incremental advertising revenues for Canadian broadcasters in 1988.<sup>14</sup>

With the most recent estimate for the value of section 19.1 being from 1988, we set out to develop estimates for the broadcast years 1990/91 through 2008/09, by applying Donner's methodology to the broadcasting markets in each of these years.

**Table 18 Estimates of impact of section 19.1, 2004**

	1975 Market Share	Revenue Growth Assumption	10% Market Share	15% Market Share
Total potential losses of U.S. border stations (\$ millions)	115	149	193	241

Source: Nordicity estimates based on methodology from Donner and 2004 statistics from CRTC.

To derive the 1988 estimate, Donner essentially simulated the U.S. broadcaster revenues in 1988 based on four different scenarios for U.S. television station revenue from Canadian advertisers.

1. U.S. stations maintain their 1975 market share (before Bill C-58) of 7.1% of total conventional television advertising expenditures.
2. U.S. stations' share of conventional television advertising expenditures in Canada grows by the same rate as private conventional television advertising revenues in Canada.
3. U.S. stations increase their market share in Canada to 10%.
4. U.S. stations increase their market share in Canada to 15%.

Donner selected scenarios two and three from among these four scenarios, to construct the low- and high-end ranges for his 1988 estimate.

In 1975, immediately prior to the implementation of section 19.1, American border stations accounted for \$16.5 million, or 7.1%, of Canada's total expenditures on private conventional television advertising.

The estimates under each scenario represent the potential or projected loss experienced by American

<sup>11</sup> Donner and Lazar, 1979.

<sup>12</sup> Arthur Donner and Mel Kilman. *Television Advertising and the Income Tax Act: An Economic Analysis of Bill C-58*. Prepared for the Department of Communications, November 1983.

<sup>13</sup> Donner, 1986.

<sup>14</sup> Arthur Donner. *The Financial Impacts of Section 19.1 of the Income Tax Act (Bill C-58) and Simultaneous Substitution*. Her Majesty the Queen in Right of Canada as represented by the Minister of Communications. 1990.



border stations because of section 19.1. However, as Donner points out, part of this loss was due to simultaneous substitution and not section 19.1, per se. Donner suggests that about 20% of the value of simultaneous substitution can be traced back to lost advertising sales by the border stations. The remaining 80% of the simultaneous-substitution impact can be attributed back to American network advertising. As such, he reduces his section 19.1 estimates by 20% of the simultaneous substitution estimate in order to arrive at a residual estimate of impact of section 19.1.

Using Donner's methodology, we estimated that section 19.1 generated advertising revenues of between \$88 million and \$122 million for Canadian private conventional television broadcasters in the English-language market in 1995/96. To arrive at this range estimate, we derived scenarios two and three for the 1995/96 broadcasting year, and then removed the effect of simultaneous substitution. We applied this approach to each year during the 1990/91-to-2010/11 period and found that the revenue impact of section 19.1 was between \$91 million (Scenario 2: revenue growth scenario) and \$130 million (Scenario 3: ten percent market share scenario) in 2010/11.

Donner's Scenario 2 suggests that American border stations' Canadian revenues would grow in step with the growth of private conventional television advertising revenues in Canada. Between 1975 and 1995/96, the advertising revenues of Canada's private conventional television broadcasters increased by approximately seven-fold from \$214 million to \$1,497 million. In 1975, American border stations garnered \$16.5 million in Canadian advertising revenues. By multiplying the 1975 amount by seven, one obtains an estimate of \$115 million for 1995/96. The Scenario 3 estimate is simply \$1,497 million multiplied by 10%, or \$150 million.

We repeated the above process for each broadcasting year during the 1990/91-to-2010/11 period, and found that under Scenario 2, the revenue impact grew from \$97 million in 1990/91 to \$149 million in 2010/11. Under Scenario 3, the revenue impact grew from \$126 million in 1990/91 to \$193 million in 2010/11.

The next step in the calculation required us to remove the estimate for the American border stations' lost revenue due to simultaneous substitution. As described in Appendix B, we calculated two estimates for the value of simultaneous substitution. To simplify our analysis we multiplied these amounts by 20% and used the midpoint of the resulting range, to represent the portion of American border stations' lost revenue that would have been lost due to simultaneous substitution. Based on this approach, the portion of the revenue impact attributed to simultaneous substitution was \$23 million in 1990/91, growing to \$39 million in 2010/11.

Donner's 1990 estimate of the revenue impact of section 19.1 did not distinguish between private conventional broadcasters and the CBC|Radio-Canada. As such, one final adjustment needed to be made to the estimate in order to account for CBC|Radio-Canada's share of the English-language conventional television advertising market. In 2010/11, CBC|Radio-Canada earned \$246 million in advertising revenues; this represented 13% of total conventional television advertising revenues in the English-language conventional television market. To account for the CBC|Radio-Canada's share of the advertising, we have reduced each estimate by 13% of the **total potential loss** of U.S. border stations (i.e., \$149 million in Scenario 2 in 2010/11 and \$193 million in Scenario 3 in 2010/11).

Therefore, by applying Donner's methodology to the 2010/11 television advertising market, and removing CBC|Radio-Canada from the amount, we derived the following estimates for the incremental revenue impact of section 19.1.

- Under the revenue-growth scenario (Scenario 2), the advertising-revenue impact increased from \$58 million in 1990/91 to \$91 million in 2010/11.
- Under the 10%-market-share scenario (Scenario 3), the advertising-revenue impact increased from \$81 million in 1990/91 to \$130 million in 2010/11.

**Table 19 Estimates of revenue impact of section 19.1 (\$ millions)**

	Back-cast						Base year	Extrapolation													
	1990/91	1991/92	1992/93	1993/94	1994/95	1995/96	1996/97	1997/98	1998/99	1999/00	2000/01	2001/02	2002/03	2003/04	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
<b>Revenue growth assumption scenario</b>																					
Total potential losses of U.S. border stations	97	104	104	106	112	115	123	133	135	136	138	135	149	150	155	156	157	154	139	148	149
U.S. border station losses due to simultaneous substitution [Note 1]	23	25	25	25	27	27	29	32	33	33	34	34	37	38	39	40	40	39	36	39	39
Estimated losses of U.S. border stations due to section 19.1	74	80	80	81	85	88	94	101	102	103	104	102	111	112	116	116	117	115	104	110	110
CBC's share of advertising market	17	17	16	15	16	19	17	20	17	16	17	17	16	18	11	18	17	20	16	18	19
Revenue gains for private conventional television broadcasters due to section 19.1	58	63	64	66	70	69	77	81	85	87	87	84	96	94	104	98	101	95	88	92	91
<b>Ten percent market share scenario</b>																					
Total potential losses of U.S. border stations	126	136	135	138	145	150	160	173	175	176	179	176	193	194	201	202	204	200	181	192	193
U.S. border station losses due to simultaneous substitution [Note 1]	23	25	25	25	27	27	29	32	33	33	34	34	37	38	39	40	40	39	36	39	39
Estimated losses of U.S. border stations due to section 19.1	103	111	111	113	119	122	131	141	142	143	145	142	156	156	162	162	164	161	145	154	155
CBC's share of advertising market	21	22	21	20	21	24	22	25	22	20	22	23	20	24	15	24	22	26	20	23	25
Revenue gains for private conventional television broadcasters due to section 19.1	81	89	90	93	98	98	109	115	120	123	122	119	135	133	147	139	142	135	125	131	130

Source: Nordicity estimates based on methodology from Donner (1990) and statistics from CRTC and CBC.

**Notes:**

(1) Equal to 20% of total value of simultaneous substitution (see Appendix C).

## Appendix E - Statistics for Federal Government Expenditures

Table 20 Federal government expenditure statistics (\$ 000s)

Fiscal year	Total federal government expenditures on operations and programs	National Defence	Debt payments	Total federal government expenditures (less National Defence and debt payment)
	A	B	C	=A-(B+C)
1990/91	158,810,000	12,307,000	42,484,000	104,019,000
1991/92	168,718,000	11,862,000	41,139,000	115,717,000
1992/93	171,474,000	11,956,000	39,292,000	120,226,000
1993/94	169,709,000	12,564,000	37,899,000	119,246,000
1994/95	173,383,000	12,244,000	41,927,000	119,212,000
1995/96	175,765,000	11,938,000	46,692,000	117,135,000
1996/97	166,041,000	10,949,000	44,916,000	110,176,000
1997/98	160,672,000	10,354,000	43,443,000	106,875,000
1998/99	166,593,000	10,449,000	43,967,000	112,177,000
1999/00	173,337,000	11,869,000	44,140,000	117,328,000
2000/01	184,612,000	11,968,000	45,650,000	126,994,000
2001/02	184,941,000	12,576,000	40,139,000	132,226,000
2002/03	189,249,000	12,818,000	36,473,000	139,958,000
2003/04	197,272,000	13,304,000	34,670,000	149,298,000
2004/05	207,128,000	14,360,000	32,753,000	160,015,000
2005/06	215,293,000	15,075,000	32,076,000	168,142,000
2006/07	223,989,000	16,096,000	32,045,000	175,848,000
2007/08	240,461,000	17,925,000	31,225,000	191,311,000
2008/09*	238,846,000	18,769,000	30,990,000	189,087,000
2009/10*	274,198,000	20,862,000	29,414,000	223,922,000
2010/11*	270,463,000	21,273,000	30,870,000	218,320,000

Source: Statistics Canada, CANSIM, matrix 325-0002 and *Public Accounts of Canada* (2008/09 to 2010/11).

\* The data for 2008/09 to 2010/11 have been sourced from the *Public Accounts of Canada*, since Statistics Canada terminated CANSIM matrix 325-0002 at the 2009 fiscal year.

**Table 21 Federal government expenditures on culture (\$ 000s)**

Fiscal year	Total federal government expenditures on culture and broadcasting	CBC parliamentary appropriation	Federal government expenditures on culture and broadcasting less CBC parliamentary appropriation
	A	B	=A-B
1990/91	2,203,000	1,078,430	1,124,570
1991/92	2,279,000	1,031,037	1,247,963
1992/93	2,405,000	1,109,746	1,295,254
1993/94	2,212,000	1,089,746	1,122,254
1994/95	2,253,000	1,093,852	1,159,148
1995/96	2,040,000	1,170,689	869,311
1996/97	2,011,000	997,133	1,013,867
1997/98	1,973,000	806,485	1,166,515
1998/99	2,079,000	896,435	1,182,565
1999/00	2,195,000	879,187	1,315,813
2000/01	2,303,000	902,074	1,400,926
2001/02	2,373,000	982,885	1,390,115
2002/03	2,650,000	1,046,522	1,603,478
2003/04	2,890,000	1,066,311	1,823,689
2004/05	2,961,000	1,036,528	1,924,472
2005/06	2,874,000	1,098,000	1,776,000
2006/07	2,944,000	1,114,000	1,830,000
2007/08	2,986,000	1,104,000	1,882,000
2008/09*	3,067,221	1,170,814	1,923,186
2009/10*	3,057,816	1,139,516	1,944,997
2010/11*	2,975,684	1,137,145	1,864,519

Source: Statistics Canada, CANSIM, matrix 325-0002; *Public Accounts of Canada*; and CBC|Radio-Canada.

\* The data for 2008/09 to 2010/11 have been sourced from the *Public Accounts of Canada*, since Statistics Canada terminated CANSIM matrix 325-0002 at the 2009 fiscal year. Given the discontinuity in the data set, only the annual percentage change in the series for 2009/10 and 2010/11 was used to calculate the index.