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## The Content Genre, Audience Share, and Presence of Public Sector Broadcasters in an Era of Overflowing OTT Services

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# The Content Genre, Audience Share, and Presence of Public Sector Broadcasters in an Era of Overflowing OTT Services

## Abstracts

Various types of broadcasters have been created due to the progress of broadcasting technology, and recently, global OTT services have threatened the *raison d'être* of PSBs. PSB opponents, based on neo-classical economics, argue that the government's support for PSB hurts fair competition and distorts the market. In contrast, PSB proponents, based on neo-Keynesian economics, say that PSBs still need to provide citizens with quality programs for correcting market failures. This study found that several PSB channels broadcast entertainment much more than other genres in line with global OTT platforms except BBC One and Rai 1, and that the more PSB channels broadcast entertainment (quality programs), the higher (lower) annual audience share of channels. This could contribute to improving the management performance of PSBs. However, if the social agreement is reached that audience share is not the ultimate goal, it would be desirable for PSBs to consistently supply traditional quality content to citizens to prevent market failures.

Keywords: content, genre, quality program, audience share, social responsibility, PSB, OTT

## 1. Introduction

Public sector broadcasters (PSBs) have developed mainly in Europe over the past 100 years since the establishment of the British Broadcasting Corporation (BBC). These PSBs have contributed to developing the media industry while underlining their social responsibility and role in boosting democracy and citizenship (Donders, 2021). Concretely, the BBC is clearly stating its roles as a public organization: (1) to provide people with news and information; (2) to educate people; (3) to show creative and quality services; (4) to reflect and serve the diverse communities; and (5) to deliver the UK's culture and values to the world (BBC, 2022). To achieve the specified goals, PSBs care about producing and broadcasting visual content genres with audience appeal (e.g., comedy, drama, and entertainment) and media content in public-interest genres (e.g., news, current affairs, and specialist factual program). PSBs traditionally pursued in-house production processes in a bureaucratic way (Dhoest, 2004; Van den Bulck, 2009). However, PSBs' monopolistic status funded by the government began to falter during the 80s and 90s because of the emergence of cable, satellite, and internet multimedia broadcasters, oriented towards in-house and

commissioned production and deregulation policies. Then PSBs began to come under external pressure emphasizing commercialization, economic principles, and securing marketability (Van den Bulck, 2022). In turn, broadcasters have tended to understand the audience as consumers, perceived as a sort of commodity to advertisers rather than as citizens in the traditional notion, and to put emphasis on audience share (Holtz-Bacha and Norris, 2001; Meijer, 2005). This result has provoked both pros and cons about whether the existence value of PSBs is still valid today. This academically contestable issue has intensified more after the emergence of global OTT services. In 2022, there was also a movement to abolish TV license fees in the long term at the government level in the UK and France, where public broadcasters have a long history (Bloom, 2022; Dams, 2022).

This paper finds that previous studies' arguments on the issue can be categorized into three. Firstly, there are normative statements based upon Neo-Keynesianism advocating still valid *raison d'être* of PSBs and license fees beneficial for society. These say Pay TV broadcasters jump into taking a right to broadcast sports events like the Olympic Games or World cup, giving rise to restricting viewing access (Hesmondhalgh, 2002). Barwise and Picard (2014) estimate that the absence of PSBs could decrease first-run content and total content spending in the UK, and Bardoel and Lowe (2007) argue that the enlargement of service activities of PSBs to digital domain is conducive to carrying out public duties. Born and Prosser (2001) assert that PSBs like BBC need to expand their commercial services vibrantly to cope with globally traded content and widen the area of their global influence.

On the other hand, we can also identify academic statements based on the Neo-Classical view and skepticism about the usefulness of PSB as an institution for public interests in the changing media industry environment. One of those views says the Pay TV platform can provide sports fans with superior services in the sports program, and another says PSBs' monopolistic status does not help spur innovation and quality due to their

complacency (Rowe, 2004). Market distortions and unfair competition caused by government intervention and support are issues that are constantly raised by opponents (Born and Prosser, 2001; Van den Bulck, 2022).

At the same time, somewhat neutral statements view PSBs, and other types of commercial broadcasters are in a cooperative relationship (Wauters and Raats, 2018). In particular, this relationship is well shown in the cases of cooperation between PSBs and OTT services launching joint VOD platforms such as Salto, Britbox, and Wavve (Van den Bulck, 2022). Above mentioned studies provide our deep understanding and insight into the *raison d'être* of public broadcasters in the changing environment. However, as most of the studies derive normative statements through qualitative research methods mainly, there is a research gap that there is a lack of empirical studies employing econometric methods and deriving positive statements that can help in considering the current existence value of PSBs.

More specifically, we can also look at previous studies examining the activities and strategies of stakeholders in the OTT market (Kim et al., 2017; Kostovska et al., 2020) and the relationship between traditional broadcasters and OTT services after Netflix entered the UK market in 2012 (Jung and Melguizo, 2022; Nam et al., 2015; Park, 2018). Andersson Schwarz (2016) and Lin (2013) studied the PSBs' envelopment strategy, launching the SVOD platform based on the existing content library and viewers (e.g., BBC iPlayer). Sørensen (2014) reported that the PSBs distributed their documentary and factual content through multiple platforms and emphasized their role as a curator for them. Born and Prosser (2001) emphasized the unrepealed values of the existence of PSBs against the adverse effects of commercial broadcasters (populism, sensationalism, and lower-quality programming). Steemers (2016) found that the entry of global OTT services into the UK market had conflicting impacts on PSBs and independent producers. Raats and Jensen (2021) elucidated that the PSBs' TV drama strategies on volume and budgets can differ according to the media

market in which they are placed.

Even though these studies examined the interactions between global OTT services and incumbent broadcasters, including the PSBs, there has been no in-depth study on the changes in content genre and broadcasting of the PSBs. Therefore, this study explores and investigates the popularity of programs of PSBs, changes in the content genre, and the statistically significant types of genre which affect PSBs' audience share to derive and find positive results which can help think about the factors that affect the business performance and existence value of PSBs consequently.

The remaining parts of this paper are in the following order. Section 2 presents the list of popular programs of PSBs with a large number of viewers and the change in annual broadcasting time by genres divided into news, cultural, and entertainment. Section 3 sets up testable hypotheses for answering this question: what kind of content genres are needed to be broadcast more to improve the audience share of PSBs? Quality programs (news and cultural programs) or entertainment programs? Section 4 remarks on collected data, variables, and used models, Section 5 shows the results of the analyses and discusses their implications, and Section 6 is the conclusion section.

## **2. Market response to PSB contents and composition of contents genre**

### *2.1. Popularity of BBC content by number of viewers*

After Netflix entered the UK market in 2012, the PSBs have struggled in earnest to compete with global mega-OTT firms to keep their business territories and protect cultural values. Therefore, this study makes an effort to seek the constitution of the broadcasting content genre of each channel, any changes in broadcasting time by content genre, and the relationship among variables, which will be addressed in later parts from 2012 to 2022.

Below Table 1 shows the number of UK PSBs' programs included in the annual Top 10 programs by number of viewers, the channel names, and the program genres and sub-genres

----- Insert Table 1 around here -----

(Barb, 2023).

Comparing the 2012 and 2022 figures, we can note that BBC One, BBC's oldest flagship channel, placed nine programs in the top 10 in 2012 and 7 in 2022. The number decreased slightly, though we can know the influence of PSB is still strong in the UK. The UK held the 2012 Summer Olympics, so the six sports programs of BBC One, including broadcasting 'the Olympic Closing Ceremony' (24.46 million audiences), were ranked in the top 10 in 2012. As the birthplace of football, the demand for watching sports programs relevant to football, like 'Euro 2012' and 'UEFA Euro 2012', was also high.

The other three programs consisted of 2 reality show programs, 'Strictly Come Dancing (13.37 m. audience)' and 'Strictly Come Dancing: The Results (13.35 m.)', and one concert program 'The Diamond Jubilee Concert (15.32 m.)' for celebrating the Queen Elizabeth II's 60 years on the throne. Watching demand for major sporting events (such as the Olympics, World Cup, and UEFA European Football Championship), for coverage of official statements by the King, the Queen, and the Prime Minister, and for annual public events (such as 'Happy New Year Live!'), was high throughout the period (2012-2022). Given that mentioned programs transmitting significant sports events also play a role of public interest that enhances a sense of belonging to the nation and cultural citizenship, it is considered that BBC's public interest programs are steadily gaining popularity. BBC One's content ranked in the top 10 in 2022 consisted of 3 news and one entertainment program. Specifically, the news consisted of the coverage of 2 special events ('The Queen's Platinum Jubilee' and 'Happy New Year Live!') and 1 statement ('The King'), and the entertainment included two sports ('FIFA World Cup 2022: Wales v England' and 'UEFA Women's Euro 2022: England v Germany'), one talent show ('Strictly Come Dancing') and one reality ('Eurovision Song Contest'). Considering the 'Eurovision Song Contest' is an international song competition

with a long history, it can also be said to have a public interest in enhancing cultural citizenship with the former two international sports matches. In addition, BBC One has ranked high-quality and famous drama series in the top 10 almost every year.<sup>1</sup> Amid the strength of entertainment programs, documentaries broadcast in 2016 ('Planet Earth II') and 2017 ('Blue Planet II') stand out. They placed 3rd (13.14 m.) and 1st (14.01 m.), respectively. However, other BBC channels except BBC One have not placed programs in the top 10 during the period. Channel 4 took a baking reality program, 'The Great British Bake Off,' to the 7th place (10.05 m.) in 2019 and 6th place (11.74 m.) in 2020.

## *2.2. Changes in broadcasting time by genre*

Referring to Article 69, Paragraph 3 of the Broadcasting Act of Korea,<sup>2</sup> the slightly different classifications for the content genre of PSBs in each country were reorganized into news (and current affairs), cultural, and entertainment programs for uniformity and convenience of analysis here.

When looking at the main PSB channels in the UK first, we can figure out that BBC One's annual broadcasting time of news programs had surpassed entertainment in 2013 and has exceeded the others for the period. On the other hand, in the case of Channel 4, entertainment has constantly transcended other genres, although there have been slight changes for each genre. Thus, we can identify that those two channels' main genres differ. In the case of BBC, it is publicly funded by the government through the license fee. In contrast, Channel 4, a non-profit organization, is not financially supported but owned by the government (Sørensen, 2014).

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<sup>1</sup> 'Doctor who' (2013); 'Sherlock' (2014); 'EastEnders' (2015); 'Call the Midwife' (2015); 'Sherlock' (2016); 'Sherlock' (2017); 'Call The Midwife' (2017); 'Bodyguard' (2018); 'Line of Duty' (2019); 'His Dark Materials' (2019); 'The Salisbury Poisonings' (2020); 'Line of Duty' (2021); 'Vigil' (2021).

<sup>2</sup> A broadcasting business operator conducting comprehensive programming shall, when programming broadcast programs, include broadcast programs related to news, cultural, and entertainment in accordance with the standards prescribed by Presidential Decree, and shall organize such broadcast programs in such a way that they harmonize with each other.

----- Insert Figure 1 around here -----

----- Insert Figure 2 around here -----

A French PSB France Télévisions' primary channel is France 2. For the same period, its main genre broadcast among three genres has been entertainment, like Channel 4, regardless of the other genres' changes in rank order.

----- Insert Figure 3 around here -----

Main PSB channels in Germany, Das Erste and ZDF, present similar and almost constant patterns with similar broadcasting hours by genre. Entertainment has been the most popular genre among them.

----- Insert Figure 4 around here -----

----- Insert Figure 5 around here -----

The flagship channel La 1 of a Spanish PSB RTVE shows relatively constant and stable patterns like the German channels. In contrast, the primary channel Rai 1 of an Italian PSB Rai presents volatile patterns looking like tangled threads.

----- Insert Figure 6 around here -----

----- Insert Figure 7 around here -----

Overall, PSB channels show different airtime patterns by genre in each country during the period, and the airtime for entertainment has been the highest in the main channels except BBC One and Rai 1. Considering that global streaming services mainly supply entertainment content, it can be seen that many public broadcasters follow suit while BBC spends much time broadcasting traditional quality programs.

### **3. Literature review and research hypotheses**

#### *3.1. News, current affairs, and cultural*

Public broadcasting corporations with a tradition and history of around 100 years have focused not only on broadcasting popular entertainment programs but also on producing



and broadcasting quality programs of public interest, such as news, current affairs, and cultural programs. When referring to the Korean broadcasting law for the uniformity and convenience of genre classification, concretely, the quality programs include news; information; current affairs; cultural; documentaries; specialist factual; general factual; education; arts; religion; ethics; programs for minors; institutional coverage, etc. The reason for broadcasting these programs is that PSBs set their primary objectives for producing quality programs, providing information based upon impartiality and pluralism, and making citizens participate in a democratic culture (Born and Prosser, 2001; Meijer, 2005). In the case of broadcasting documentaries of PSBs, especially, it is beneficial to build up brand power, strengthen differentiation strategy against the competition and increase efforts to provide public service programs (Doyle, 2013; Steemers, 2004). Considering that it is not easy to find commercial broadcasters that broadcast documentaries or other quality programs as their primary focus, except for Discovery or HBO developing the genre of non-fiction entertainment in the US, PSBs can be said to have somewhat monopolistic power in these quality programs (Fürsich, 2003; Meijer, 2005). This monopolistic power has also been solidified with institutional support from the European Union. In 1997, the Amsterdam Protocol regarded PSBs as institutions playing an essential role in safeguarding media pluralism and confirmed that the EU Member States had the right to provide financial support to PSBs (Van den Bulck, 2022).

Looking at the size of the global TV advertising market from 2017 (157,427 m. USD) to 2020 (141,237 m. USD), the overall trend is declining (-3.6% CAGR), but among the details (terrestrial advertising, pay-TV advertising, online TV advertising), the size of online TV advertising is on the rise of which CARG is 11.6% (PWC, 2021).

To establish a hypothesis, we need to look at the relationship between consumers (advertisers) and suppliers (PSBs) for advertisements in PSBs' quality programs. Here

advertisers, as consumers of the advertisements, decide the consumption by considering PSBs' selling products, the audience watching the quality programs of PSBs, and the substitutes of other sellers. Now that there are not many substitutes for PSBs' quality programs, it can be seen that PSBs have an exclusive audience, more valuable than the overlapped audience for PSBs (Anderson et al., 2018). On top of that, the relative scarcity of substitutes indicates that the demand curve for the advertisements of quality programs is relatively inelastic to price (Werden, 1997). Since the increase in the broadcasting time of the quality program genre means that the corresponding advertising time relevant to quality programs also increases, so the advertising supply curve shifts to the right. In this case, PSBs' revenue on the genre would decrease more than before. Therefore, eventually, the audience share of the quality programs would fall, for that reduced revenues on the genre would cause a falling-off in quality owing to the lowered budget for licensing or producing the genre content.

**Hypothesis 1:** All else being equal, the broadcasting time of quality programs is negatively correlated with the audience share of the quality programs.

### *3.2. Entertainment*

Since the birth of the PSB in the 1920s, many types of commercial broadcasting corporations have emerged that threaten the position of PSBs according to the progress of broadcasting technology. This trend began in earnest in the 1980s with the growth of cable and satellite broadcasters. Back in 1980, specifically, 36 public and five commercial channels existed in Europe, and those figures increased to 45 public and 55 commercial channels in 1997 (Van den Bulck, 2022). Currently, furthermore, a lot of global OTT services are threatening the value of the existence of PSBs.

Globally, the OTT market has grown significantly over the past decade and reshaped the whole multimedia industry, including the PSBs. In response to increasing competition in

the OTT service market, the BBC launched its own OTT platform, the BBC iPlayer, in 2007. The BBC uses the N-screen strategy so that its viewers paying license fees can watch BBC content and other broadcasters' content for free through devices such as PCs and smart devices. Furthermore, the BBC launched an SVOD platform called BritBox with ITV plc that provides British TV programs, films, and original content in the UK, the US, and Canada. With all these efforts, many commercial broadcasters have pointed out the market distortion effects resulted from the government's unfair public funding to PSBs, and have released a bunch of the fine-quality of original entertainment content like Netflix's 'Squid Game' and 'The Glory,' which have created worldwide sensations.

Although PSBs are steadily releasing fine-quality entertainment content enjoyed by audiences worldwide, such as 'Doctor Who' and 'Sherlock,' various commercial broadcasters, including Netflix, are also pumping out many substitutes. Now that there are many substitutes for PSBs' entertainment programs, the demand curve for the advertisements of entertainment programs is relatively elastic to price (Werden, 1997). Since the increase in the broadcasting time of the entertainment genre means that the corresponding advertising time relevant to entertainment also increases, so the advertising supply curve shifts to the right. In this case, PSBs' revenue on the genre would increase more than before. Therefore, eventually, the audience share of the entertainment programs would increase, for that increased revenues on the genre would cause the improvement of quality owing to the raised budget for licensing or producing the genre content.

**Hypothesis 2:** All else being equal, the broadcasting time of the entertainment programs is positively correlated with the audience share of the entertainment programs.

## **4. Data and research models**

### *4.1. Variables*

Appendix Table 1 presents the definitions and sources of the data set collected from the five countries with at least one PSB channel. The dependent variable data were collected from research companies Auditel, Glance, and Kantar. The independent variables data were acquired from ARD, CNMC, CSA, Ofcom, and RAI reports. The panel data span from 2012 to 2022, and it has information on 15 PSB channels in 5 countries (UK, France, Germany, Italy, and Spain) and has 165 observations.

----- Insert Table 2 around here -----

#### 4.2. Research models

For testing the hypotheses above, this study employs a fixed effects model taking account of broadcaster fixed effects. We intend to extract unobservable broadcaster-specific heterogeneity effects on audience shares with the dummy. The model does not have a year dummy variable because it is hard to consider a common year-specific impact across all 5 sample countries. Model 2 is presented in equation (1):

$$Audience\ Share_{i,j,t} = C + M_j + \beta X_{i,j,t} + u_{i,j,t} \text{ ----- (1)}$$

Where the subscripts  $i, j$ , and  $t$  are indexes for channels, broadcasters, and time,  $C$  is the constant term,  $M_j$  broadcaster dummies with the BBC as the reference group,  $X_{i,j,t}$  the vectors of the independent and control variables and  $u_{i,j,t}$  disturbances. For statistical analyses, this study used R (ver 3.6.2). After a correlation test among the explanatory variables, we could confirm that there are no critical multicollinearity problems considering that every correlation coefficient is below 0.7. Furthermore, all the independent variables' VIFs (variance inflating factors) are well below 10.

----- Insert Tables 3 and 4 around here -----

### 5. Results and discussion

Table 5 reports the regression results for fixed effects models. Model 1 presents regression results with only control variables, while Model 2 reports the results including

main independent variables base models. Model 3 and Model 4 show the results when year dummies are included into Model 1 and Model 2, respectively for considering any time effects.

----- Insert Table 5 around here -----

As shown in Table 5, the two independent variables (*'News, current affairs, and cultural'* and *'Entertainment'*) turned out to have expected effects on dependent variables, as enumerated in hypotheses 1 and 2.

## **6. Conclusion**

This study finds that several PSB channels broadcast much entertainment content in line with the primary genre supplied by global OTT platforms. On the contrary, it turns out that the oldest PSB channel, BBC One broadcasts quality programs the most, traditional genres having their own public values. In addition, this study finds that the more PSB channels broadcast entertainment (quality programs), the higher (lower) annual audience share of channels. It means PSB channels need to focus more on airing entertainment when caring about audience share, which is an important performance indicator in the recent media industry. However, this is a positive statement based on the analysis results we conducted here, which can contribute to improving the management performance of PSBs. The issue of whether PSBs' ultimate goal is to increase their audience share or not is a normative issue that requires more social discussion and consensus. If the social agreement is reached that audience share is not the ultimate goal, it would be desirable for PSBs to consistently supply traditional quality content to citizens to prevent market failures based on the Neo-Keynesian economics ideology.

Table 1 The programs of UK PSBs in the top 10 by viewership

Year	Channel	Number of programs	Genre (No.)	Sub-genre (No.)
2012	BBC One	9	Entertainment (9)	Sports (6) Show (2) Concert (1)
2013	BBC One	7	News (1) Entertainment (6)	Special event (1) Comedy (2) Show (2) Drama (1) Sports (1)
2014	BBC One	8	News (1) Entertainment (7)	Special event (1) Sports (3) Show (2) Drama (1) Reality (1)
2015	BBC One	6	News (1) Entertainment (5)	Special event (1) Drama (2) Show (2) Reality (1)
2016	BBC One	8	Cultural (1) Entertainment (7)	Documentary (1) Show (3) Sports (2) Drama (1) Reality (1)
2017	BBC One	7	News (1) Cultural (1) Entertainment (5)	Special event (1) Documentary (1) Drama (2) Show (2) Concert (1)
2018	BBC One	6	Entertainment (6)	Sports (4) Drama (1) Show (1)
2019	BBC One	5	News (1) Entertainment (4)	Special event (1) Comedy (1) Drama (2) Show (1) Reality (1)
	Channel 4	1	Entertainment (1)	Reality (1)
2020	BBC One	6	News (4)	Statement (2) News special (1) Special event (1)
			Entertainment (2)	Drama (1) Show (1) Reality (1)
	Channel 4	1	Entertainment (1)	Reality (1)
2021	BBC One	7	News (3)	News special (1) Special event (1) Statement (1)
			Entertainment (4)	Drama (2) Show (1) Sports (1)
2022	BBC One	7	News (3)	Special event (2) Statement (1)
			Entertainment (4)	Reality (1) Show (1) Sports (2)

Table 2 PSB channels

Country	Firm	Channel
UK	British Broadcasting Corporation	BBC One
		BBC Two
		BBC Portfolio
	Channel Four Television Corporation	Channel 4
France	France Télévisions	France 2
		France 3
		France 4
		France 5
Germany	Abkürzung für Arbeitsgemeinschaft der öffentlich-rechtlichen Rundfunkanstalten der Bundesrepublik Deutschland	Das Erste
	Zweites Deutsches Fernsehen	ZDF
Italy	Radiotelevisione Italiana	Rai 1
		Rai 2
		Rai 3
Spain	Corporación de Radio y Televisión Española	La 1
		La 2

Note: BBC Three, BBC Four, CBBC, CBeebies, BBC News and BBC Parliament are collectively referred to as BBC Portfolio.

Table 3 Descriptive statistics

Variable (unit)	Mean	St. Dev.	Min	Max
<i>Audience share</i> (percentage, 0-1)	0.086	0.057	0.008	0.221
<i>News, current affairs, and cultural</i> (thousand hours)	4.987	6.656	0.479	29.600
<i>Entertainment</i> (thousand hours)	3.010	1.541	0.080	5.885
<i>Content spend</i> (trillion USD)	0.002	0.001	0.0002	0.004
<i>Fixed broadband price</i> (thousand USD)	0.034	0.013	0.007	0.069
<i>Mobile broadband price</i> (thousand USD)	0.015	0.005	0.007	0.031
<i>OTT subscribers</i> (billion people)	0.014	0.013	0.000	0.048



Table 4 Correlation coefficients

Variable	1	2	3	4	5	6
<i>Audience share</i>						
<i>News, current affairs, and cultural</i>	-0.313					
<i>Entertainment</i>	0.197	-0.146				
<i>Content spend</i>	0.148	0.375	-0.168			
<i>Fixed broadband price</i>	0.033	-0.082	-0.011	-0.297		
<i>Mobile broadband price</i>	0.013	0.020	0.200	-0.075	-0.032	
<i>OTT subscribers</i>	0.055	0.155	0.058	0.144	0.495	-0.054

Table 5 Results from FEM estimation

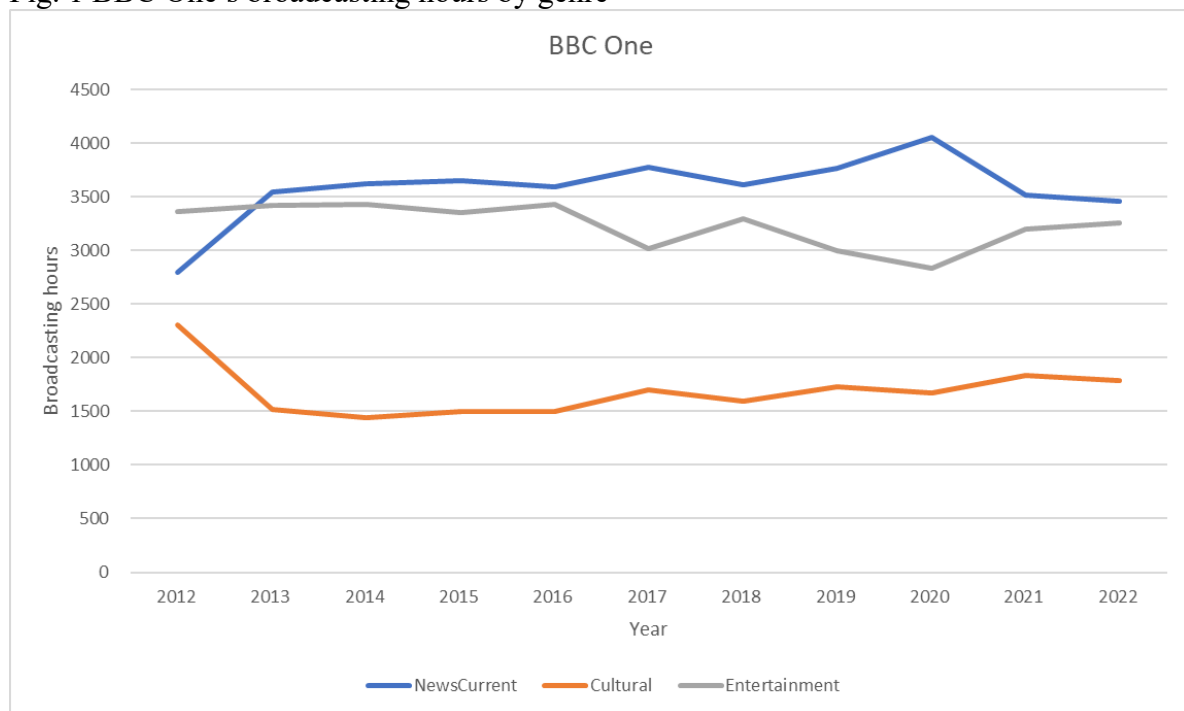
Variable	Model 1 (AS)	Model 2 (AS)	Model 3 (AS)	Model 4 (AS)
<i>News, current affairs, and cultural</i>		-0.004* (0.000)		-0.004* (0.000)
<i>Entertainment</i>		0.008+ (0.061)		0.008+ (0.071)
<i>Content spend</i>	3.907 (0.874)	0.143 (0.994)	1.024 (0.974)	-3.801 (0.888)
<i>Fixed broadband price</i>	-0.125 (0.793)	0.015 (0.969)	-0.066 (0.914)	0.040 (0.939)
<i>Mobile broadband price</i>	0.249 (0.763)	0.248 (0.728)	-0.069 (0.956)	-0.014 (0.989)
<i>OTT subscribers</i>	0.100 (0.837)	0.095 (0.821)	0.483 (0.710)	0.492 (0.661)
<i>Channel 4 (UK)</i>	-0.033 (0.646)	-0.106+ (0.098)	-0.041 (0.649)	-0.117 (0.143)
<i>France TV (France)</i>	-0.018 (0.605)	-0.066♦ (0.039)	-0.018 (0.676)	-0.067+ (0.088)
<i>ARD (Germany)</i>	0.026 (0.322)	-0.037 (0.145)	0.025 (0.414)	-0.039 (0.170)
<i>ZDF (Germany)</i>	0.046 (0.373)	-0.019 (0.681)	0.041 (0.521)	-0.026 (0.646)
<i>Rai (Italy)</i>	0.014 (0.789)	-0.030 (0.525)	0.011 (0.866)	-0.034 (0.560)
<i>RTVE (Spain)</i>	-0.017 (0.836)	-0.077 (0.289)	-0.021 (0.837)	-0.084 (0.353)
<i>Year dummies</i>			Included	Included
N obs.	165	165	165	165
Adjusted R-squared	0.090	0.322	0.028	0.275
F-statistic	2.633	7.501	1.242	3.838

Note: \* significant at 1%; ♦ significant at 5%; + significant at 10%. P-values are in parentheses. AS at the top of the columns denotes the dependent variable *Audience share*.

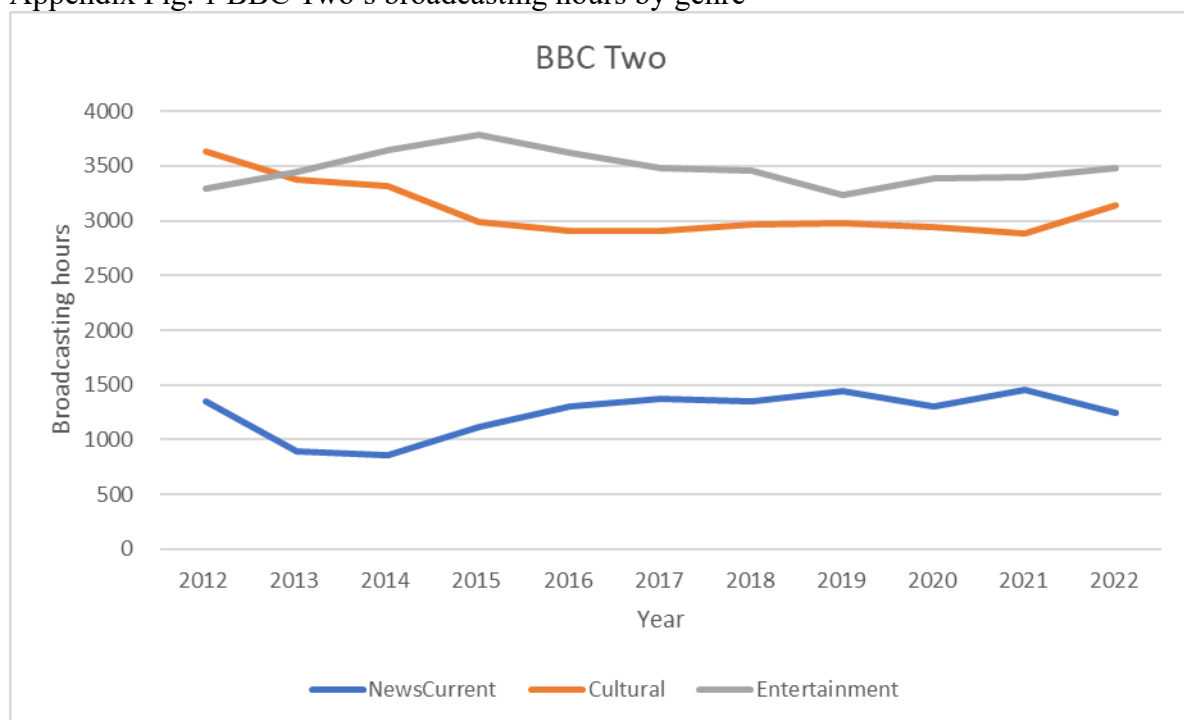
Appendix Table 1 Definition of variables

Variable (unit)	Definition	Source
<i>Audience share</i> (percentage)	The percentage of viewing time for a specific broadcasting channel out of the total viewing time of viewers for all television broadcasts	Auditel, Glance, and Kantar
<i>News, current affairs, and cultural</i> (thousand hours)	The annual broadcasting hours of TV programs dealing with public interests. Concretely, it includes: news; information; current affairs; cultural; documentaries; specialist factual; general factual; education; arts; religion; ethics; programs for minors; institutional coverage	ARD, CNMC, CSA, Ofcom, and RAI
<i>Entertainment</i> (thousand hours)	The annual broadcasting hours of TV programs dealing with amusements. Concretely, it includes: entertainment; comedy; drama; soap; film; fiction; animation; show; concert; sports; event transmission; reality	ARD, CNMC, CSA, Ofcom, and RAI
<i>Content spend</i> (trillion USD)	The cost of making, supporting and delivering content to audiences, and making license contracts	Annual reports and financial statements
<i>Fixed broadband price</i> (thousand USD)	Fixed-broadband basket monthly average price with monthly data usage of more than 5 GB	ITU Data
<i>Mobile broadband price</i> (thousand USD)	Mobile-broadband basket monthly average price with a monthly data allowance of more than 2GB	ITU Data
<i>OTT subscribers</i> (billion people)	The total number of subscribers in each country's OTT market	Journal articles, Ofcom, and Omdia
<i>Corporation</i> (Dummy)	The owners of public broadcasting channels. The reference dummy is BBC.	Authors' coding

Fig. 1 BBC One's broadcasting hours by genre



Appendix Fig. 1 BBC Two's broadcasting hours by genre



Appendix Fig. 2 BBC Portfolio's broadcasting hours by genre

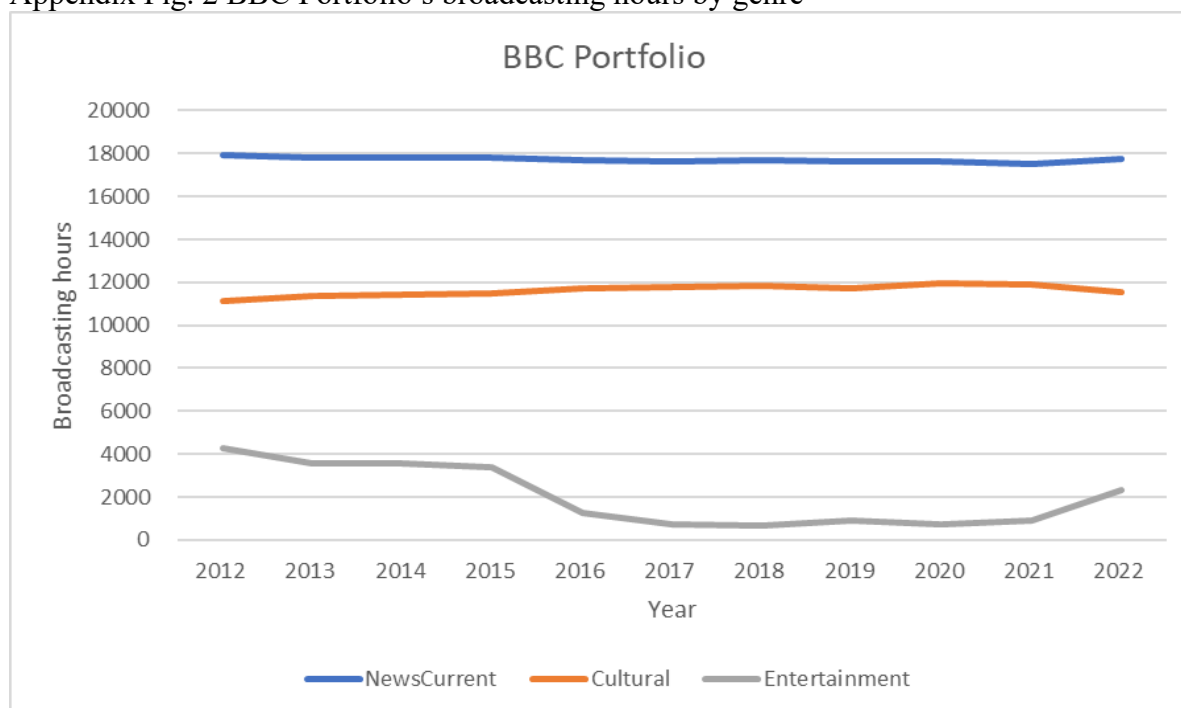


Fig. 2 Channel 4's broadcasting hours by genre

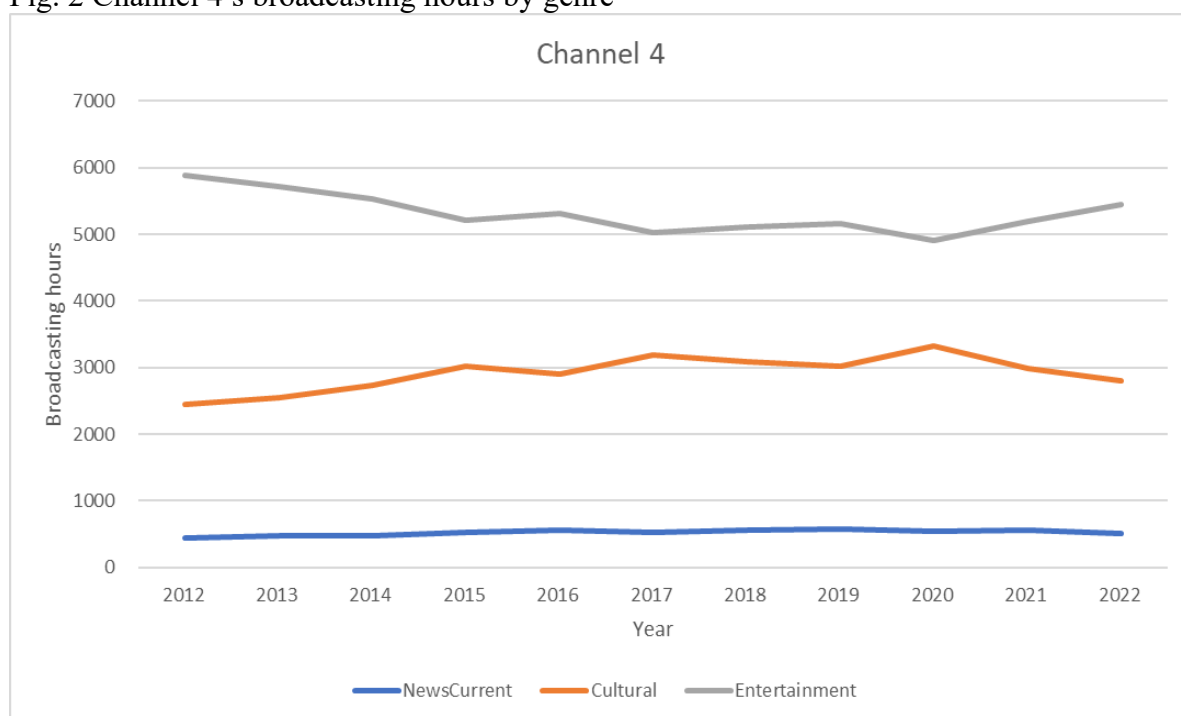
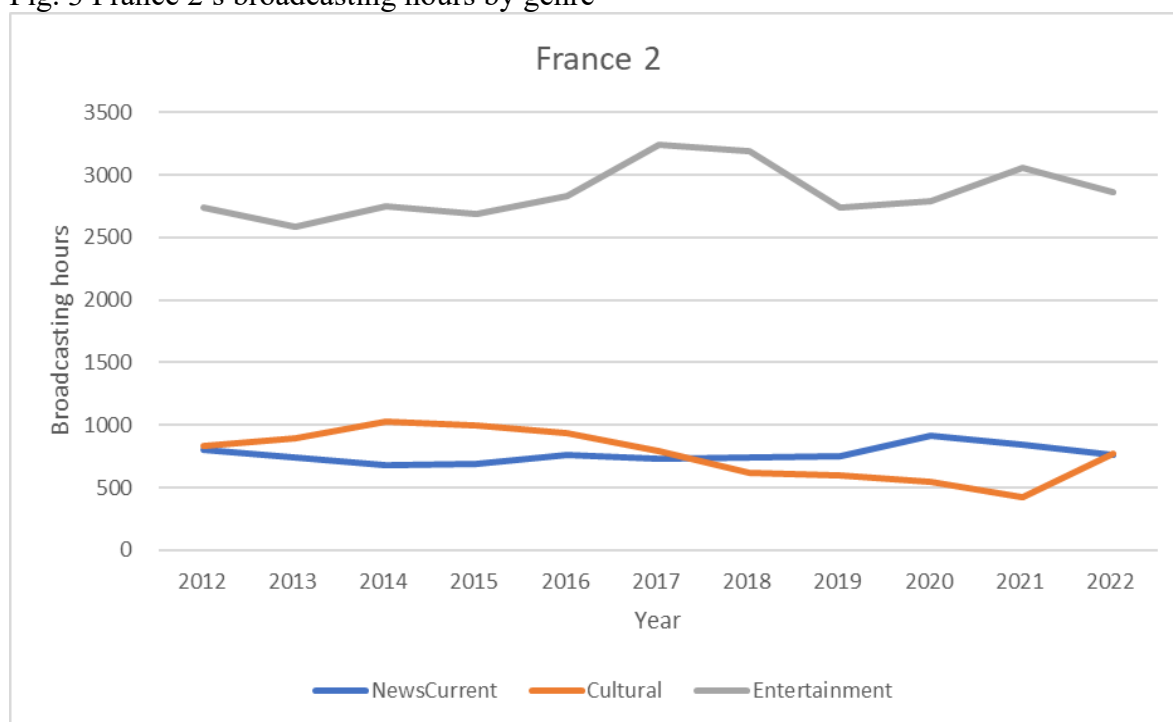
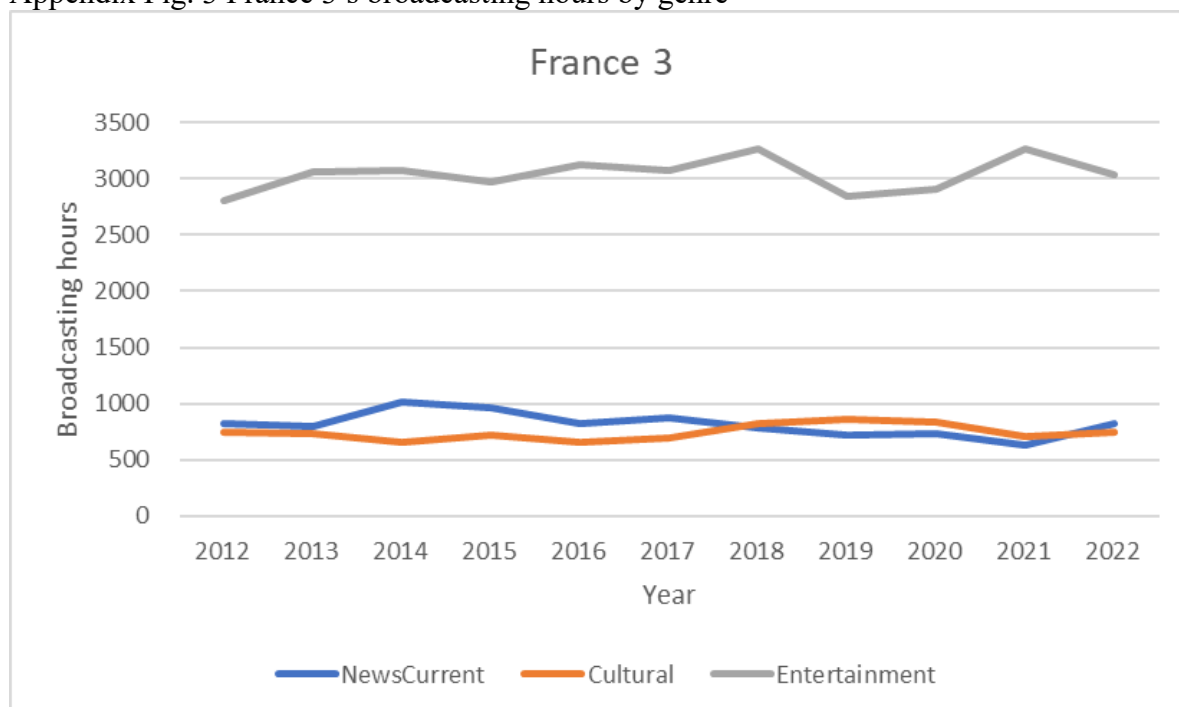


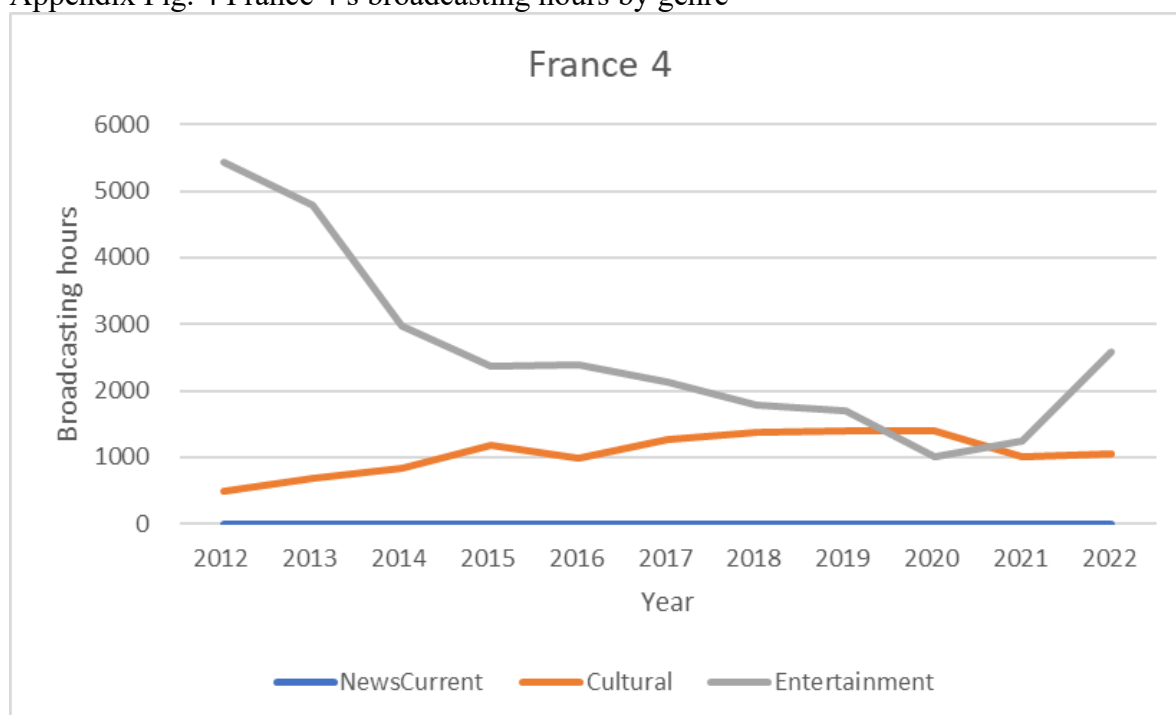
Fig. 3 France 2's broadcasting hours by genre



Appendix Fig. 3 France 3's broadcasting hours by genre



Appendix Fig. 4 France 4's broadcasting hours by genre



Appendix Fig. 5 France 5's broadcasting hours by genre

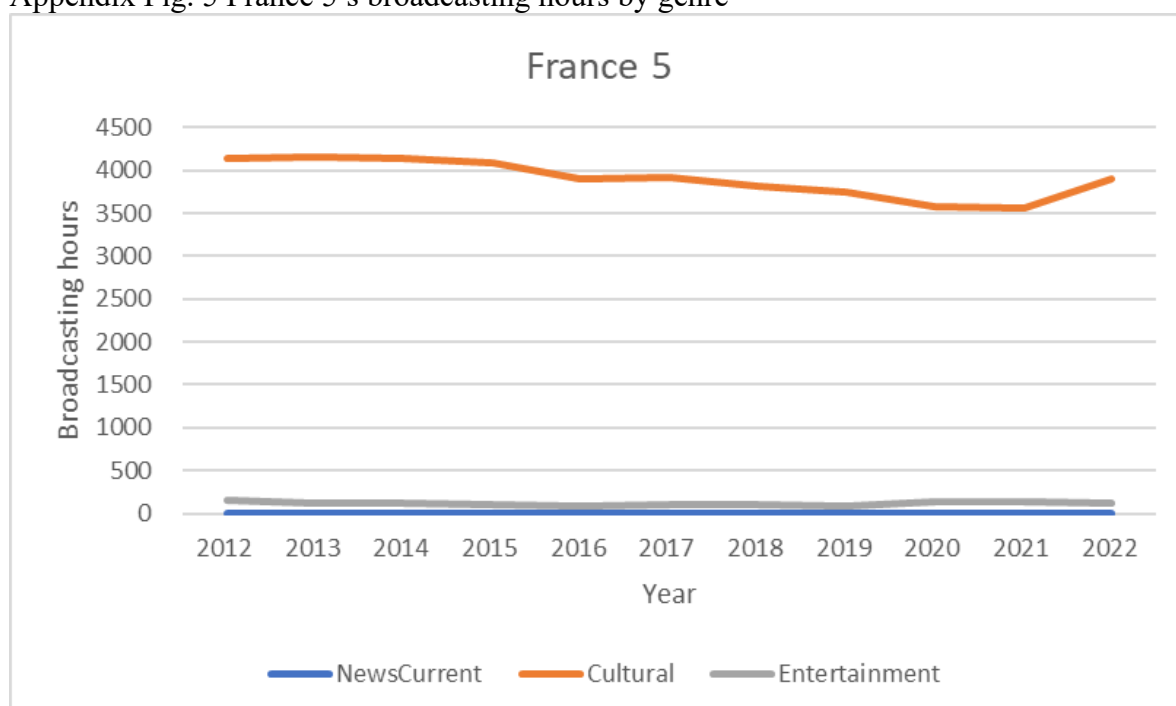


Fig. 4 Das Erste's broadcasting hours by genre

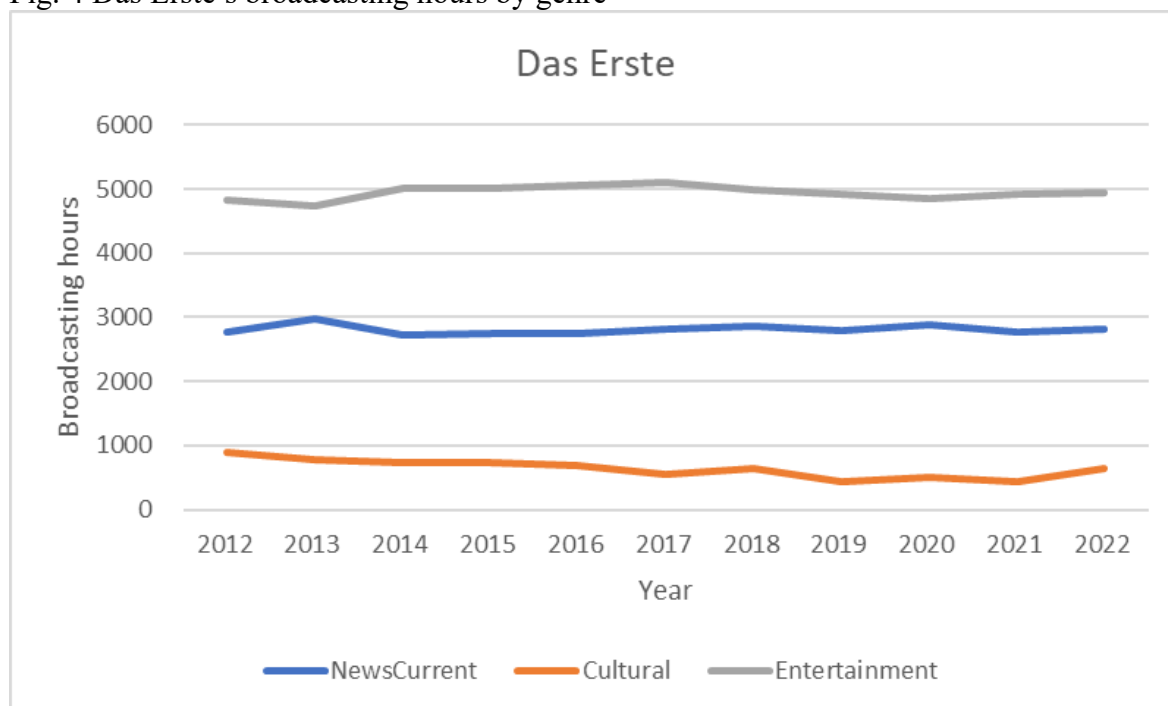


Fig. 5 ZDF's broadcasting hours by genre

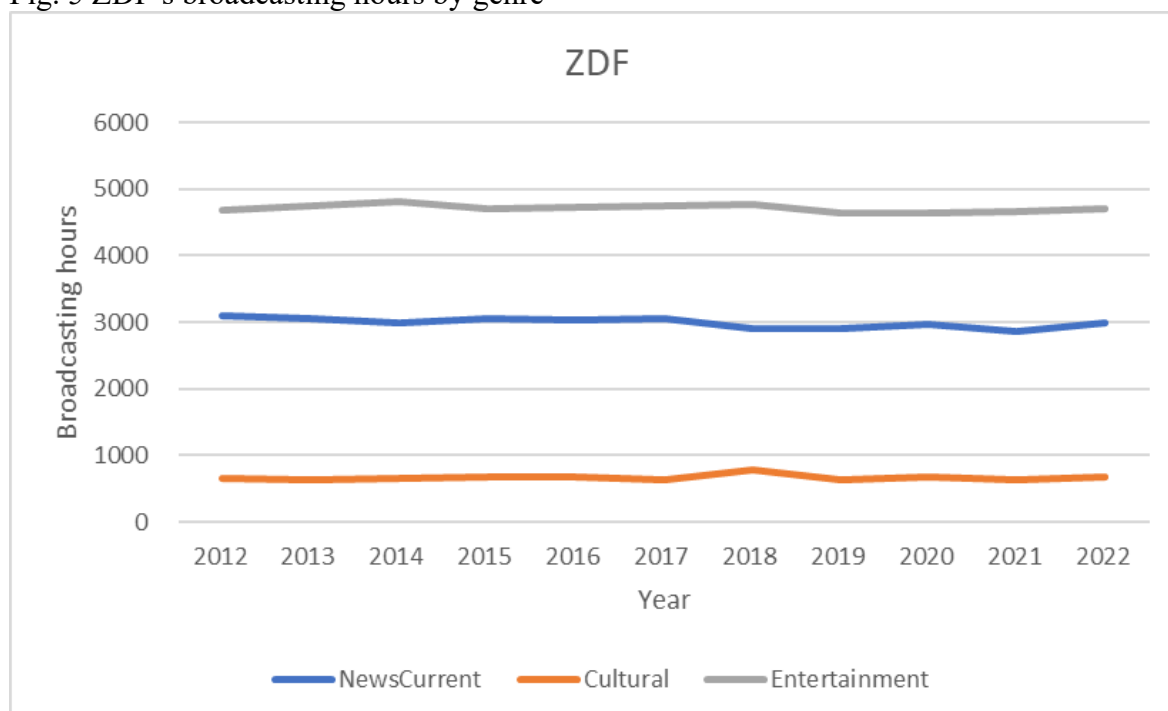
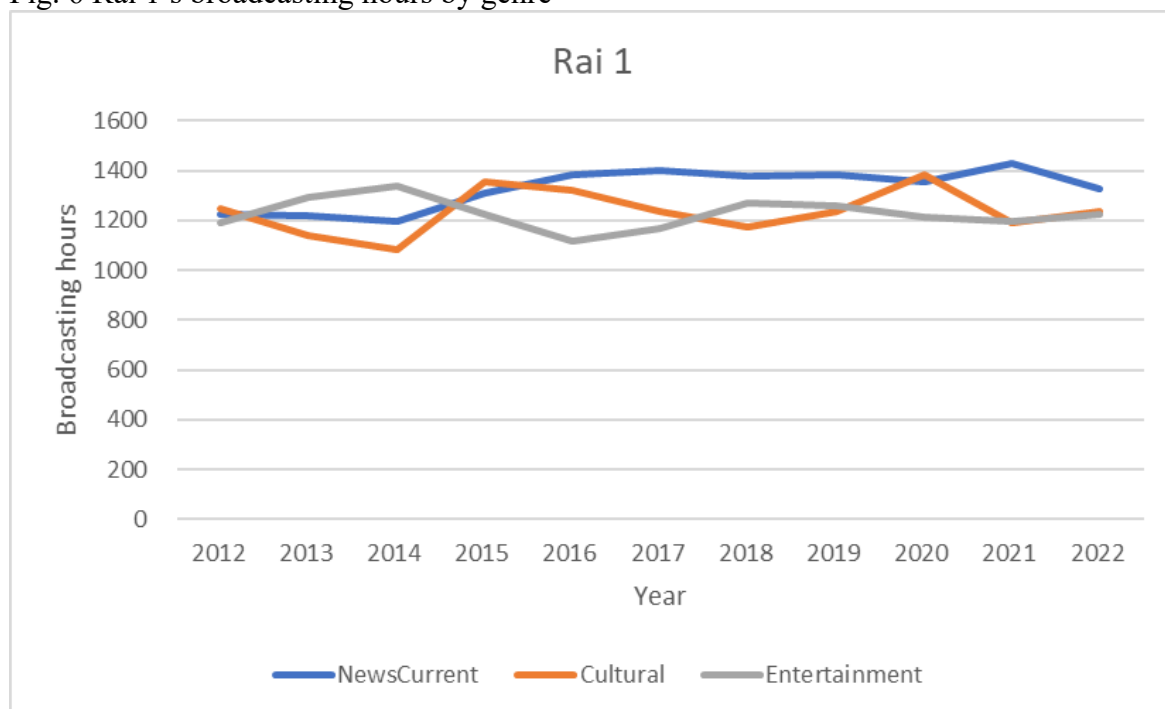
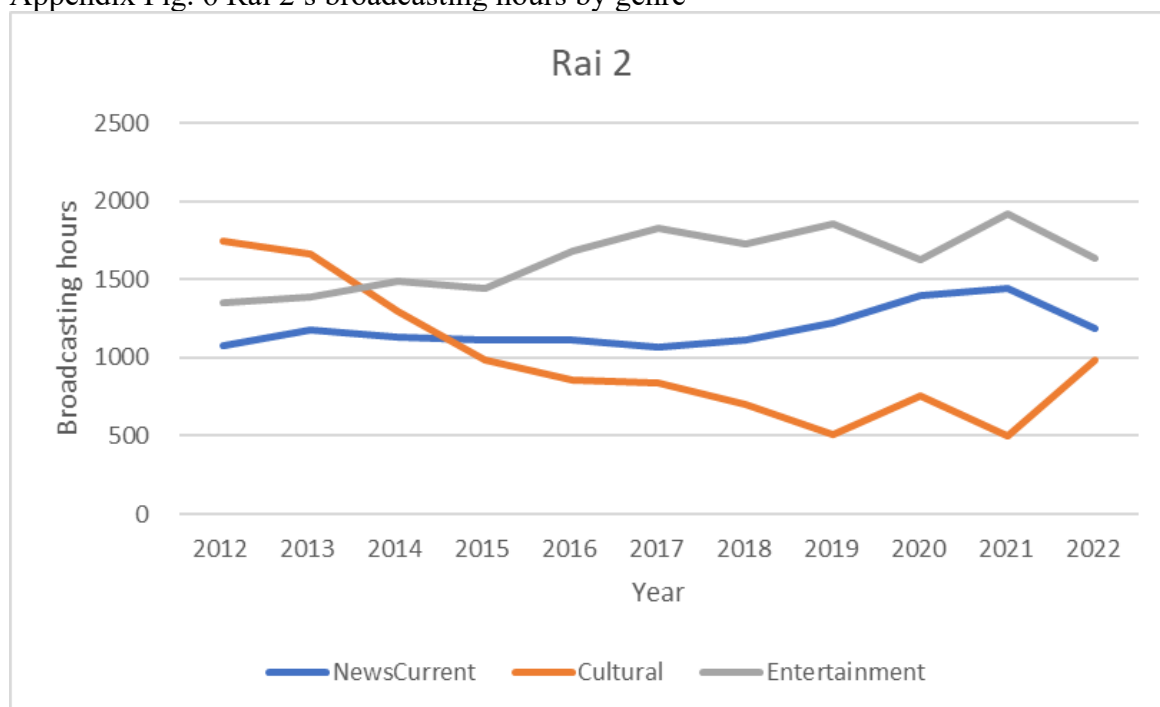




Fig. 6 Rai 1's broadcasting hours by genre



Appendix Fig. 6 Rai 2's broadcasting hours by genre



Appendix Fig. 7 Rai 3's broadcasting hours by genre

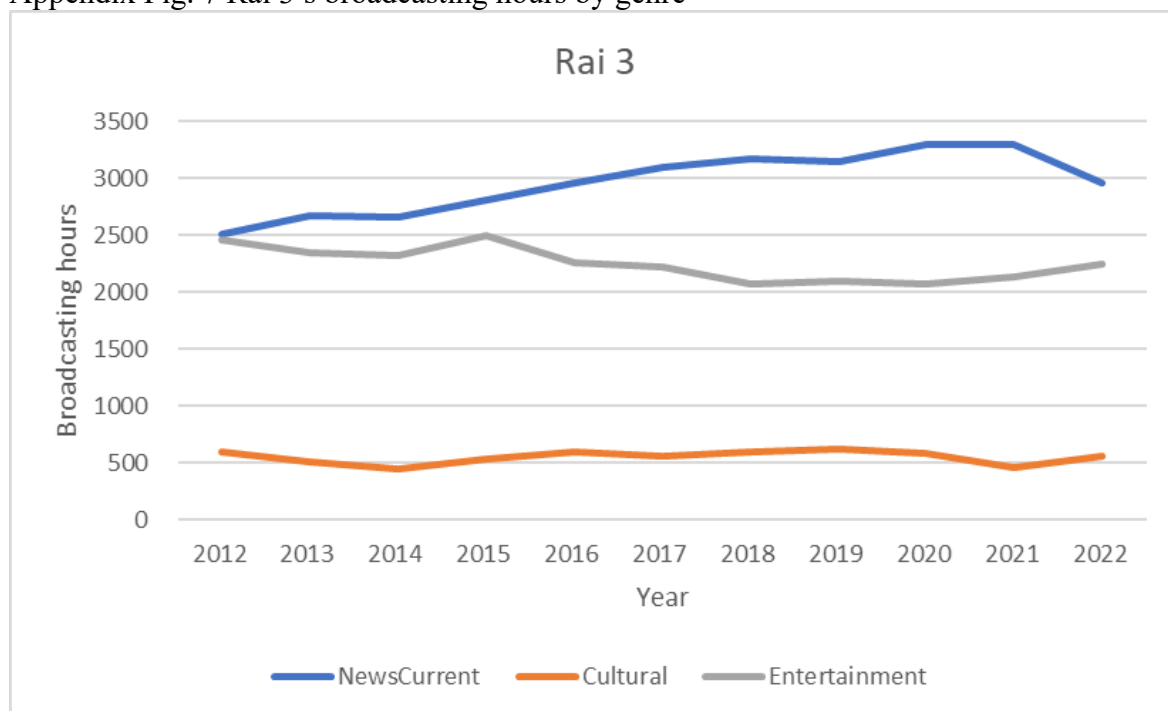
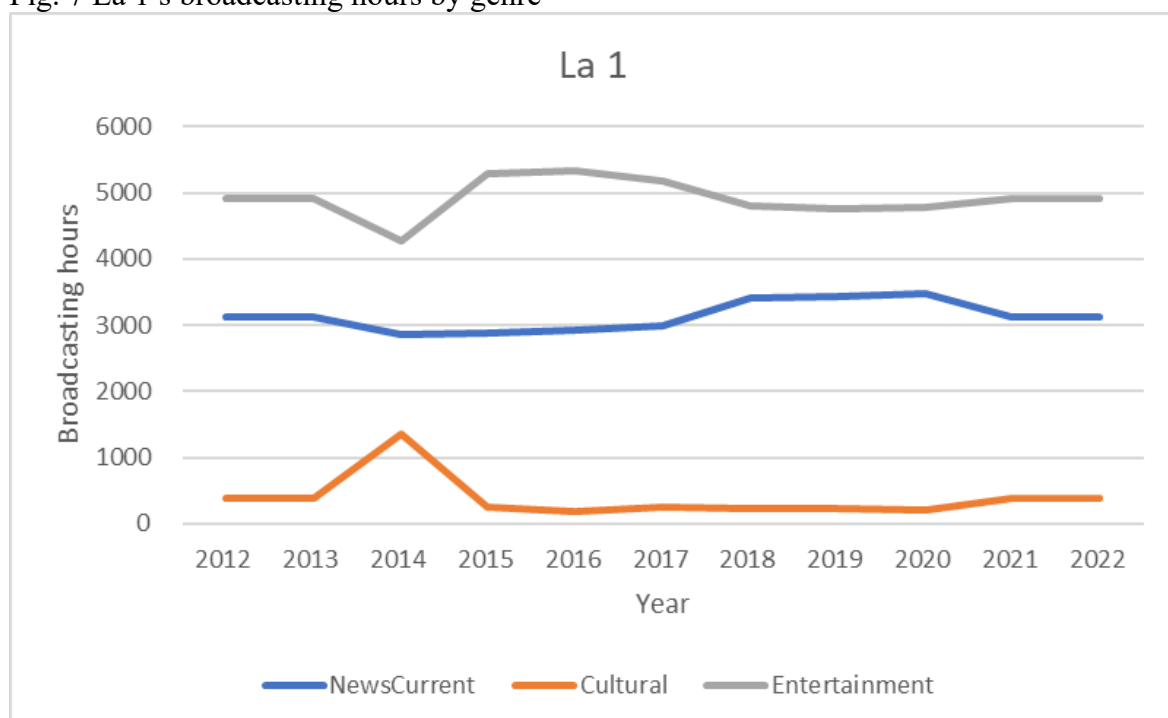
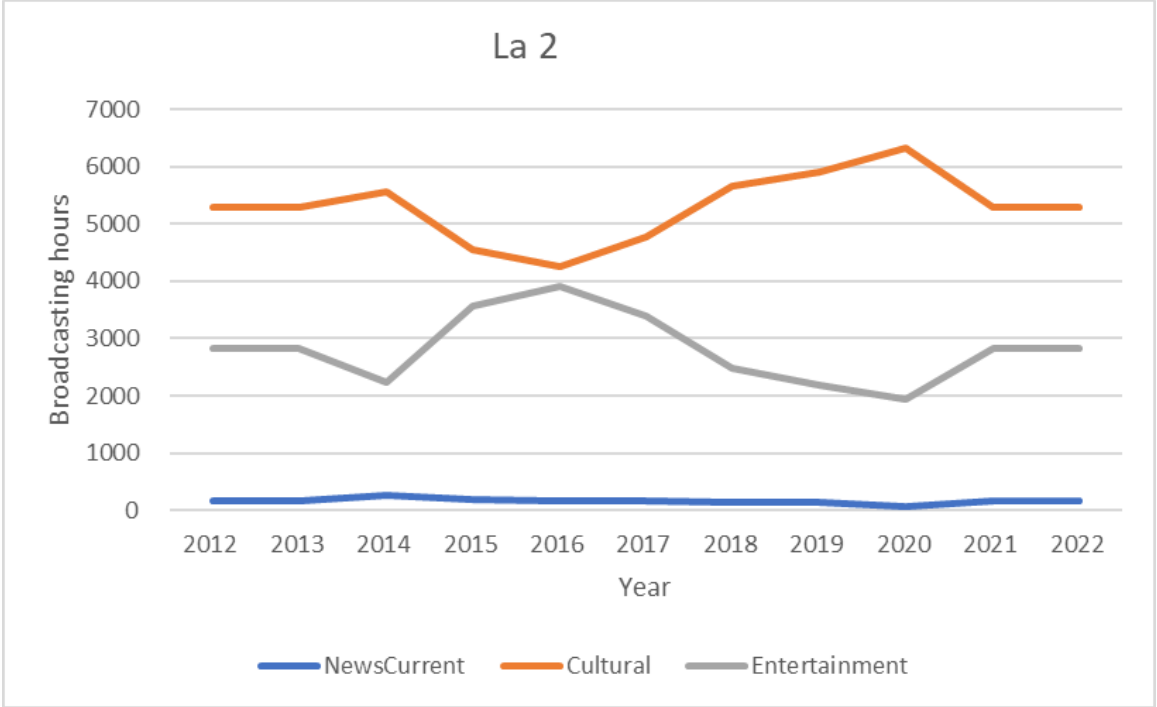


Fig. 7 La 1's broadcasting hours by genre



Appendix Fig. 8 La 2’s broadcasting hours by genre



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