Working Paper No 19/06

Norwegian Radio Broadcasting: From Public Monopoly to Competitive Homogeneity?

by
Øystein Foros
Hans Jarle Kind
Helge Østbye

SNF project no 1303

"Konvergens mellom IT, medier og telekommunikasjon: Konkurranse- og mediepolitiske utfordringer"

Funded by the Research Council of Norway

CASE - Centre for Advanced Studies in Economics

INSTITUTE FOR RESEARCH IN ECONOMICS AND BUSINESS ADMINISTRATION
BERGEN, APRIL 2006
ISSN 1503-2140

CASE – CENTRE FOR ADVANCED STUDIES IN ECONOMICS

CASE – Centre for Advanced Studies in Economics – is a joint centre for The Norwegian School of Economics and Business Administration (NHH), The Institute for Research in Economics and Business Administration (SNF) and The University of Bergen (UiB). Research at CASE includes all types of issues based on economic theory and method, and researchers at the Centre have particular expertise within the areas of international trade, industrial economics, labour market economics, factor mobility, economic integration, industrial policy, international macro economics, tax policy, international transport and maritime research.

International Trade and Tax Policy
Research within this area focuses mainly on issues related to international trade and tax policy, and has generally been dominated by projects aiming to provide increased insight into global structural issues and the effect of regional economic integration. The staff have particular expertise within the fields of international real economics (trade, factor mobility, economic integration and industrial policy), international macro economics and international tax policy, but are also actively involved in projects relating to public economics and industrial policy.

Industrial Economics
Industrial economics is another central research area at the Centre, within which SNF has long-standing traditions. A series of individual studies have been carried out through large framework programmes funded by the Research Council of Norway and major Norwegian companies. The focal point of these studies is strategic company behaviour in industries with few players, where competition effects are modelled and analysed. The studies have provided important structural and empirical insights into deregulation effects within industries such as airlines, telecommunications and energy and have provided significant input to Norwegian competition policies. The research group includes a number of researchers at both UiB and NHH and has an extensive international network.

Labour Market Economics
The labour market group focuses on mainly two research areas. One central topic is education and family economics. An important aspect is to analyse the production process for human capital; the importance of family, neighbourhood, preschools and schools for adult education and labour market experience. The other main topic is to analyse firm performance and firm restructuring. These analyses include firm performance, adjustment costs, costs of displacement including health costs, the effect of technological change and international trade, and analysis of organisational change.

Human Resources
CASE is a network-based organisation whose staff consists mainly of professors at Department of Economics at NHH and UiB as well as leading international economists who are affiliated to the centre through long-term relations. Members of the academic staff are among the leading in their fields both nationally and internationally and many have served on important public committees. During the last few years the centre has produced several PhDs and the current staff also includes PhD scholars.

Networks
CASE participates in a Scandinavian Network of Excellence on labour market economics and is involved in a major EU project on international trade. The Centre collaborates with central research and educational institutions all over Europe and has particularly close contact with London School of Economics, University of Glasgow, University of Munich, University of Uppsala, Aarhus Business School, Stockholm School of Economics, The Frisch Centre at University of Oslo and Statistics Norway. The staff members participate in international research networks, including CESifo, CEPR, CEP, IZA and IAME.

Norwegian Radio Broadcasting: From Public Monopoly to Competitive Homogeneity?

By Øystein Foros, Hans Jarle Kind, Helge Østbye

We settled in for the night my baby and me
We switched 'round and 'round 'til half-past dawn
There was fifty-seven channels and nothin' on

Bruce Springsteen, 57 channels (and nothing's on), 1992

1. Introduction

“57 channels (and nothing's on)” is Bruce Springsteen’s reflection on competition and diversity within media markets. Springsteen’s lyrical claim that competition does not create media pluralism is to a certain extent consistent with predictions from economic theory. However, it is at odds with the view often put forward by policy makers. Indeed, the wish to create pluralism has typically been the crown argument for allowing - and encouraging - the establishment of an increasingly large number of private and public radio and television channels (see e.g. St.meld nr. 88 1981-82; Ot.prp. nr. 55 1989-90). While the broadcasting market in most countries was heavily regulated in the aftermath of the Second World War, it has now been liberalized in most democracies.

In the present article we use economic theory and a Norwegian case study to discuss whether competition in radio broadcasting creates diversity. We start out by giving a brief overview of the development of competition within the European broadcasting markets. However, our main focus will be the market for commercial radio in Norway, partly because this represents a very interesting case from a regulatory point of view. Twenty five years ago there existed only one Norwegian radio channel, which was run by the public sector, but a second public radio channel was in the planning process. When it opened in 1984, listeners were offered “more of the same in two channels”. Commercial radio channels were not allowed in Norway until 1988, and in 1993 the Norwegian parliament granted a license for the first nation-wide private radio channel. A second nation-wide private license was granted in

2003, seemingly without creating much more diversity. The entrant (Kanal 24) initially chose a program profile close to that of its rival, P4. Below, we argue that this lack of diversity was a consequence of both the regulatory policy and of market forces. In prolongation of this argument, we also provide a short discussion of whether horizontal mergers in media markets may increase rather than reduce diversity.

2. From monopoly to competition

For forty years following World War II, broadcasting in Western Europe was dominated by a system with national public service monopolies. Most of these were financed completely or partly by a licence fee, and owned by the state. The only exception was Luxembourg, who has never had public service broadcasting (Siune 1986). Great Britain was the first country to depart from the system with a public service monopoly when ITV was introduced in 1954-55. ITV is a nation-wide superstructure producing national television programmes based on contributions from privately owned, regional television companies. The ITV is financed by advertising, but strictly controlled by a regulatory body, the Independent Broadcasting Authority (Tunstall 1986).

Italy gradually developed a commercial television sector from 1976, with legislation lagging behind the actual development (Mazzoleni 1976). Since 1980, almost all European countries have changed to a system where the old public service broadcasting companies have to compete with privately owned, nation-wide radio and television companies (McQuail 1990). In Norway, this process started in 1982 and was completed by the establishment of a commercial sector for radio and television in 1992−93.

There is, however, strict entry regulation into radio and television markets. At least until analogue transmission has been replaced by digital, there will be a shortage of available radio spectrum. The state therefore has to find a way of selecting which companies to grant licences to.

Allocation of licences takes place either through a so-called commercial approach or a broadcasting policy approach. A *commercial approach* would be to put up an auction and give the licence to the highest bidder. In the *broadcasting policy approach*, the government specifies some media political goals that a licensee has to fulfil. Interested groups or companies are then invited to submit a tender where the emphasis is put on how well the different propositions fulfil the goals. This is what is often called a «beauty contest». Frequently, criteria from the two approaches are combined.

One problem with beauty contests is that the bidders may have to fulfil goals that make it more difficult to attract large audiences. This certainly poses a problem for the owners. Advocates of beauty contests regularly rely on paternalistic and/or market failure arguments. Historically, the paternalistic motive - that people do not know their own good - has been important. Necessary conditions for the market failure argument to be valid are well expressed by BBC chairman Gavyn Davies:[1]

> *'some form of market failure must lie at the heart of any concept of public service broadcasting [and regulation]. Beyond simply using the catch-phrase that public service broadcasting must "inform, educate and entertain", we must add "inform, educate and entertain in a way which the private sector, left unregulated, would not do". Otherwise, why not leave matters entirely to the private sector?'*

There is little doubt that there may exist serious market failures in broadcasting that a benevolent regulator in principle could solve. However, a hands-off attitude has become increasingly more prevalent in democratic countries in the media market in general. Presumably, we shall see the same development also when it comes to broadcasting, not least since technological progress reduces the natural barriers to entry (e.g., Armstrong 2005, Armstrong and Weeds, 2005). It should further be noticed that people who prefer channels run according to some public service ideology, are usually already well served by the channels operated by the old PSB (Public Service Broadcasting) companies. In this respect beauty contests tend to reduce differentiation between public and private broadcasting. Beauty contests may also impose a political burden by provoking accusations of subjectivity and favouritism.

Some of the problems with beauty contests are illuminated by the turbulent period in Norway leading up to the launch of the radio channel Kanal 24 on January 1st 2003 and the channel's struggle on the market ever since.

2.2 The end of the broadcasting monopoly in Norway

The Norwegian broadcasting system underwent a dramatic change from the early 1980s to the early 1990s. Norsk rikskringkasting, the NRK, had been established as a BBC inspired public

---

1 Quoted by Armstrong and Weeds (2005).

(radio) broadcasting monopoly in 1933. Television was formally opened in 1960, and in 1983 the NRK still operated only one radio channel and one television channel.

In 1984 the NRK formally started a second radio channel, P2. The two channels - P1 and P2 - were planned to be very similar – the motto being «more of the same in two channels» (Dahl and Bastiansen 1999:538-539).[2] At that time NRK had already experienced its first competition from other actors, since liberalization of radio had begun in 1982 when experiments with organizational local radio started. Commercials were not allowed, and the stations had to rely on support from organizations and a lot of voluntary work. The number of licences for local radio grew and reached a maximum in 1988, with 488 stations. In 1988 commercials were finally allowed and local radio became established on a permanent basis, although the licence of each of the local radio stations is awarded for a limited number of years only (Halse and Østbye 2003:192-200).

Following ten years of heated political discussion, the political parties made an agreement on the establishment of a second, nation-wide, terrestrial television network, privately owned and independent from the NRK. The new channel – TV 2 – was to be financed by advertising. As a part of this agreement, NRK was allowed to start a third radio channel (P3), while a fourth FM channel was to be private and commercial.

Two groups applied for the licence for the fourth FM channel: one consortium headed by the Aller Group, which was heavily involved in local radio, and «P4 – Radio Hele Norge», headed by the Swedish company Kinnevik, which was involved in commercial television in all the Scandinavian countries. Aller's involvement in local radio turned out to be an argument against this consortium, and the licence was awarded to the P4 Group. The licence, which was valid for ten years, included some obligations to run the station according to a vaguely defined public service ideology. P4's program consists mostly of music and news. With AC (Adult Contemporary) music, its main target group is young adults 25 to 40 or 50 years of age. (Halse and Østbye 2003:240-242)

In addition to introducing a third channel, P3, NRK responded to the increased competition on the audience market by giving each channel a distinctive profile. P1 was planned to be a broad radio channel with middle aged and older listeners. The popular regional programs were transmitted via this channel. P2 was planned as a channel for younger

---

2 This resembles the situation in the UK in the first post World War II period; at this time there was no clear distinction between the two programs offered by the BBC.

adults with higher education. Classical music, culture and current affairs dominate the channel. P3 was to focus on pop music, aiming at a group of listeners that NRK had almost lost to the local radio stations: older teenagers and young adults. NRK's change in program profile strategy from "more of the same in two channels" to segmentation with three distinctive profiles probably had greater impact on the Norwegian radio market than the direct effect of the entry of P4.

Even before P4 started its transmissions, the channel was criticized by the Minister of Culture for lack of ambition in its scheduling (Aftenposten 29/9-1993). In 1996 the Ministry of Culture appointed a Public Service Broadcasting Council (Allmennkringkastingstingsrådet) in order to survey the channels with public service obligations (NRK's radio and television channels, TV 2 and P4). P4, and to some extent NRK's P3, was criticised[3] for not complying with the council's definition of public service broadcasting[4], but, as Table 1 shows, the channels were accepted by the listeners.

Table 1: Market share for Norwegian radio channels 1992 and 1995

	1992	1995
NRK/P1	39 %	41 %
NRK/P2	27 %	5 %
NRK/P3	-	12 %
NRK tot	66 %	60 %
P4	-	27 %
Local radio	30 %	12 %
Other channels	4 %	1 %

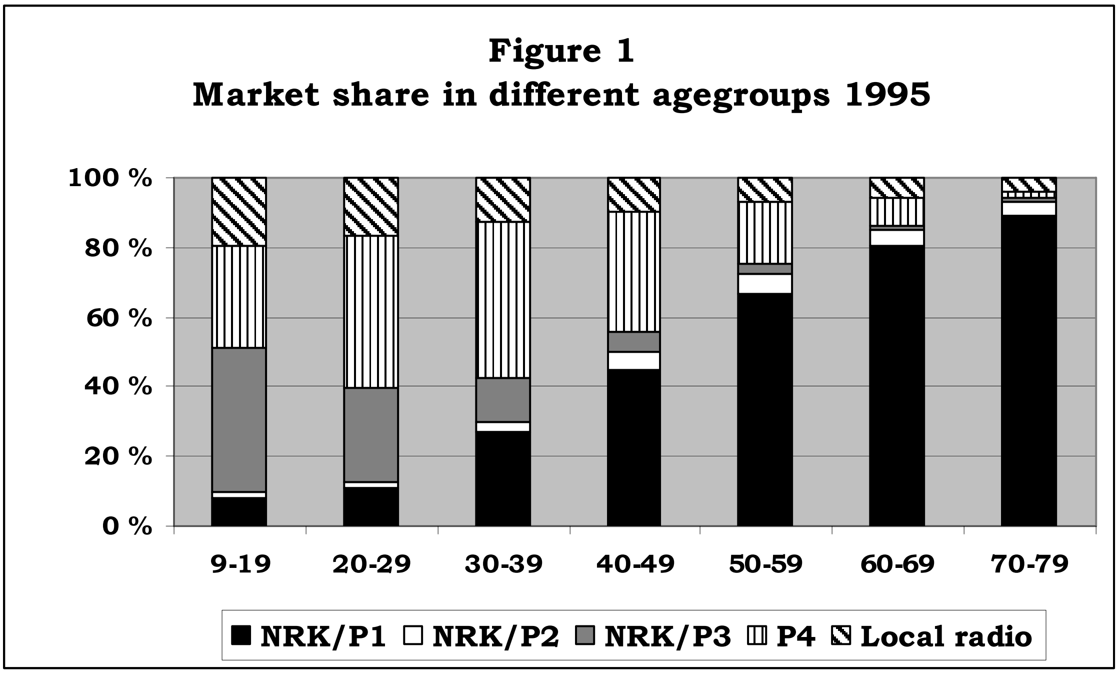
- : this channel did not yet exist.

Source: MediaNorge's databases, with data from TNS Gallup and NRK

[3] See the Council's annual reports 1997 – 2003. For an overview of the reports, see: http://www.smf.no/sw2509.asp

[4] See the Council's annual report for 1997: http://www.smf.no/graphics/SMF/Rapporter/Kringkasting/akrapp_1997.pdf

With a partial exception of P2, the four nation-wide channels reached the intended age groups (see figure 1 with data from 1995). P3 was the most attractive channel for young people. Young adults (20-39) preferred P4, while people over 40 overwhelmingly turned to P1. P2 had approximately the same market share in all age groups from 39 and above. This situation was more or less the same into the early years of the new millennium.



Source: Application

2.2.1 Kanal4/Kanal 24 vs. P4

P4's licence for the fourth FM network expired at the end of 2003. The agreement from 1993 between the Ministry of Culture and the P4 indicated that under normal conditions the holder could expect a renewal of the licence for the next period. But the Ministry decided to go for an open beauty contest. The public service obligations were somewhat more specific than ten years earlier, and the winner would have to pay NOK 160 mill (€ 20 mill.) for the licence.

It was also made known that a fifth FM-network was about to be launched. While the fourth network was estimated to reach more than 90 percent of the population, the fifth network was estimated to cover only 50 percent in early 2004, increasing to 60 percent within the first year. The charge for this network was NOK 90 mill. (11 mill. €).

When the Ministry invited applications for the licence for the fourth FM network, P4 obviously thought that this announcement was a mere formality. However, six groups applied, most of them dominated by well established media companies; among them P4, TV 2 and a new group – Kanal4 − dominated by six newspapers, mainly strong local papers.

It came as a surprise when the Ministry of Culture on December 20th 2002 announced that Kanal4 had been awarded the licence. There were strong reactions from the P4 company and some of its employees. P4 mobilised its listeners, and there were also reactions from leading politicians from opposition parties. Accusations of favouritism flourished. The Ministry stated that it had made its decision on the basis of the applications only. Kanal4 had the most ambitious plans, and could rely on resources from the newspapers that owned the radio channel, thereby creating an exciting radio channel.

P4 referred the matter to the Ombudsman, both in an attempt to overturn the decision, and in order to make public all documents relevant to the case. The Ombudsman required all documents to be made public[5], but he did not change the decision. His final verdict came on June 6th 2003. Three weeks later, it was announced that P4 was awarded the licence for the fifth FM network.

The last six months before the new channels (Kanal4 in the fourth FM network and P4 in the fifth) were due to open, P4 was fighting hard in order to maintain its position among the listeners. P4 claimed that Kanal4's name was too similar to their own, well established name, and that this could confuse the listeners. Just before Christmas, P4 obtained a court decision against their opponent's name, and the new channel had to change its name to Kanal 24 just a week before its program was launched. The licence for the fifth FM network gave P4 the right to start broadcasting in this new FM network from midnight December 31st 2003/January 1st 2004. From the same moment, Kanal4 (now, Kanal 24) was supposed to take over the fourth FM network.

The lines and transmitters for both networks are owned by Norkring, a subsidiary to Telenor (the regulated and partly privatized telecommunication incumbent). By means of some investments in the new network, Norkring was able to increase the coverage of the fifth FM network to 70 percent from the start of 2004, and add another ten percentage points to this on a longer term basis.

---

[5] All documents are available at:
http://www.odin.dep.no/kkd/norsk/tema/medier/konsesjon/043061-990015/dok-bn.html
This article is to a large extent based on analysis of these documents.

When awarding the licences, the Ministry of Culture had obviously intended a continuation of programs in the fourth FM network from one operating company to another. However, while the licences to operate commercial radio channels are regulated by the Ministry of Culture, Norkring is regulated by the Norwegian Post- and Telecommunication Authority (NPT). When Norkring gave P4 permission to start transmitting on the fifth FM network (and close down the transmission in the fourth network) approximately one week before the licence was actually valid, NPT apparently had no objections. Kanal 24 thus had to start its transmissions in a network that had been «cold» for a week; and only a negligible fraction of the audience still had their radio receivers tuned into the fourth network when Kanal 24 started to broadcast.

The battle between P4 and Kanal 24 to avoid starting up in a cold network indicates that the consumers' switching costs are significantly higher for radio than for television. A large part of the consumers have tuned in to a specific station, and are not zapping from channel to channel for radio in the same way as they do for TV. The higher degree of switching costs is probably one of the key features that distinguish the competition between commercial radio channels from competition between commercial TV channels.

Summing up, the two main reasons why Kanal 24 believed they would gain a competitive advantage over P4 turned out not to hold at the end of the day. First, the degree of coverage offered by Norkring was planned to be significantly higher in the fourth than in the fifth network. This expected advantage was jeopardized with the regulated Norkring as a facilitator and, in the end, the difference in coverage offered was much smaller than initially planned. Second, Kanal 24 assumed that it would take over P4's clientele in the fourth network, but P4 started broadcasting in the fifth network before Kanal 24 was on the air, and, consequently, kept most of their listeners. This ingenious way of changing the rules of the game, which gave Kanal 24 a cold start, is probably a main reason for Kanal 24's problems and P4's success.

2.2.2 A change in the ownership of Kanal4/Kanal 24

When Kanal4 applied for the licence of the fourth FM network, the composition of the shareholders was as shown in table 2

Table 2: Shareholder of Kanal4 when the application was handed in	
Adresseavisen ASA	20 %
Agderposten AS	11 %
Fædrelandsvennen AS	17 %
Gudbrandsdølen Dagningen AS	11 %
Harstad Tidende Gruppen AS	13 %
Mediehuset Vårt Land AS	11 %
Norsk Telegrambyrå AS	5 %
21st Venture AS	11%
Source: Application	

Adresseavisen and Fædrelandsvennen are regional newspapers; Agderposten and Gudbrandsdølen Dagningen are major local newspapers. Vårt Land is a national Christian newspaper, but also the hub of a small chain. Harstad Tidende Gruppen is a chain of local newspapers in Northern Norway. Norsk Telegrambyrå is the old, national news agency. 21st Venture was a group of financial investors.

Schibsted, Norway's leading media conglomerate, was an important actor in all media sectors with the exception of radio. Radio was indirectly included in Kanal4's portfolio, as Schibsted was an important shareholder in Adresseavisen, Fædrelandsvennen, Harstad Tidende Gruppen and Norsk Telegrambyrå.

The commercial television company, TV 2 (of which 33% of the shares are owned by Schibsted), had also applied for the radio licence, but lost to Kanal4. When it became clear that Kanal4 would face competition from the well established P4, some of the investors got cold feet. In June 2003 − midway between the decision to give the licence to Kanal4 and the start of the broadcasting − the media reported that TV 2 wanted to buy either P4 or Kanal4 (Dagens Næringsliv 5/7-03). TV 2 opted for Kanal4 and bought 34 percent of the shares, with an option of another 17 percent (Aftenposten 1/8-03). In October 2005, TV 2 passed the 50 percent mark, and owns 51.3 percent of the shares (Kampanje 7/10-05). The other shareholders are now Adresseavisen, Agderposten and Fædrelandsvennen.

When Kanal 24 started, it soon became obvious that the channel had difficulties in attracting the predicted audience share. This meant even worse problems in attracting commercials, and the revenue was low. At several stages, the owners have consequently had to increase their investments. Some of the investors have sold their shares, and TV 2 has increased its dominance in Kanal 24. This is particularly visible for the news programs in Kanal 24. During one period, Kanal 24 sent the soundtrack from TV 2's main news program, and cuts from interviews etc. from TV 2 were used in Kanal 24's news programs without reference to an external source. There are no traces of the use of regional and local newspapers as producers of news items for Kanal 24, as was promised in Kanal 24's application and mentioned in the press release from the Ministry of Culture when Kanal 24 was awarded the licence (Messel 2005).

2.2.3 The present Norwegian radio market

From 2003 the Norwegian radio market via analogue, terrestrial transmission has consisted of three channels from NRK, Kanal 24, P4 and numerous local radio channels. The total volume of listening has probably been more or less stable since the introduction of P4 in 1993 (TNS Gallup/NRK via MedieNorge's databases). The opening of Kanal 24 meant that five nation-wide channels now compete on this market. Kanal 24 still has severe problems in reaching the expected market share (see table 3).

Table 3: Market share for Norwegian radio channels 2000 and 2004

	2000	2004
NRK/P1	47 %	48 %
NRK/P2	4 %	5 %
NRK/P3	8 %	7 %
NRK total	59 %	60 %
P4	28 %	22 %
Kanal 24	-	5 %
Local radio	12 %	12 %
Other channels	1 %	1 %

- : this channel did not yet exist.

Source: MediaNorge's databases, with data from TNS Gallup and NRK

3. Competition *in* the market and competition *for* the market.

In this section we argue that the development in the Norwegian market for commercial radio to a large extent is consistent with predictions from economic theory. Economic theory shows that competition does not necessary create diversity in media markets. Furthermore, high switching costs may explain why two channels with apparently quite similar program profiles differ greatly in the size of their audiences.

With a market share of no more than five per cent, Kanal 24 is such a minor player that the competitive pressure in the Norwegian radio market is presently relatively weak. Indeed, the battle between P4 and Kanal 24 illustrates nicely how competition *in* the market may be less important than competition *for* the market in the broadcasting sector, as in many other segments of the information industry. P4 is the winner, largely because it managed to change the order of moves in the game.

3.1 Competition, diversity and the choice of program profile

The choice of program profile is a crucial factor in determining the possible success of a media firm. Should it for instance primarily try to attract a young public, a public with high education, women, or special interest groups? Among other things, the answer to this question depends on the program profile of other media firms and whether the firm can achieve higher advertising revenue from one segment than from others.

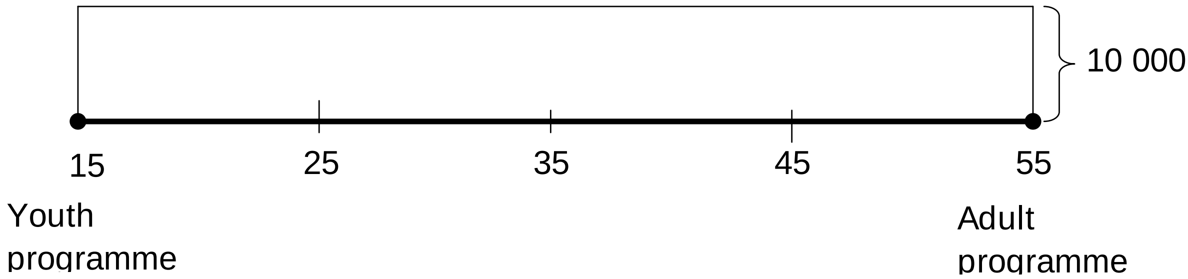
To keep things simple, assume that people's preferences for radio programmes can be defined in terms of their age and that only people between 15 and 55 years listen to radio.[6] Suppose that there are equally many people in each age group, say 10 000, and that each person listens to one and only one radio channel. There will then be 400 000 radio listeners altogether (10 000 x 40). This is illustrated in Figure 2.[7] The youngest people prefer typical youth programs, but the older people are, the more they prefer what we may label adult programmes. A radio channel which is "located" at point 35 thus has a program profile that perfectly matches the preferences of 35 year old people, but is not particularly attractive to the youngest or the oldest.

---

[6] This section builds on Kind and Sørgard (2004).

[7] This model dates back to the British economist Harold Hotelling (1929), and was in the 1950s used to analyze the consequences of allowing private radio channels to compete against BBC. See e.g. Anderson and Coate (2005) and Anderson and Gabszewicz (2005) for recent formal analysis of the media framework within the Hotelling framework.

Figure 2: Choice of program profile.



400 000 radio listeners: 10 000 in each age group between 15 and 55.

If there are only two radio channels in the market – call them Kanal 24 and P4 - which locations will they choose? Suppose first that the two radio channels are owned by the public sector, and that the aim of the public sector is to maximize the public's utility of listening to radio. In this case it will be optimal for the public sector to choose program profiles such that the average difference between what the audience actually listens to and what they are offered is as small as possible. With two radio channels, the average difference will be minimized if Kanal 24, say, is located at point 25 and P4 at point 45 in Figure 2. Those between 15 and 35 will then listen to Kanal 24, and those between 35 and 55 to P4. Each radio channel will accordingly have 200 000 listeners, and those who are 25 and 45 years old will be most satisfied.

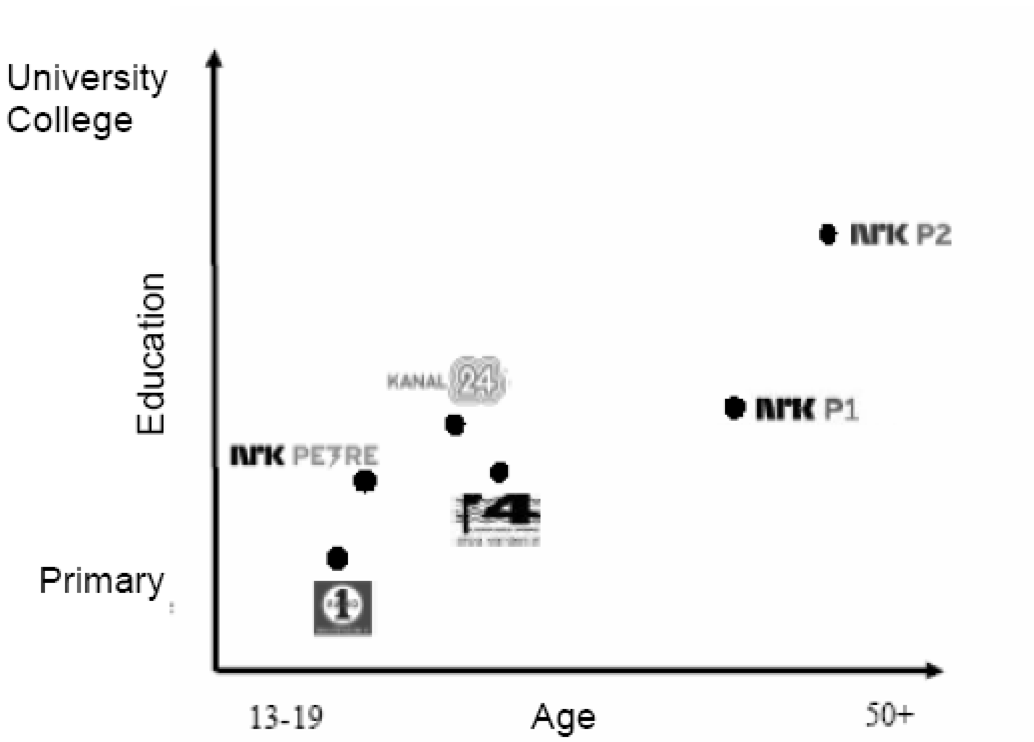
What if the two channels are owned by a private media house, which behaves as a monopolist in the media market? If each age group is equally profitable on the advertising market, the monopoly would choose the same age profiles on the radio channels as the public sector. This is true even though the monopolist does not care about the public's utility *per se*. The reason is that no other program profile can generate a larger public and thus a higher advertising income. This is one of the rare examples where a monopolist and a utility maximizing government will generate the same outcome.

But what if the two radio channels are independent, competing firms? Should we still expect to find Kanal 24 at point 25 and P4 at point 45? No. Suppose that Kanal 24 chooses a program profile suited to people who are just *slightly* younger than 45, where P4 is located. Then everyone younger than 45 will prefer Kanal 24 – giving this channel 300 000 listeners. P4, on the other hand, will have only 100 000 listeners.

P4 will of course be aware of this, and we can see where the story will end: both channels will choose the same program profile, namely the one given by age group 35. Thus, competition does not create diversity. On the contrary, the competing channels will have overlapping program profiles.

This simple model explains why many economists have expressed doubt over whether media competition really creates diversity. The model is certainly a great simplification of reality, but in Norway we actually observed that both Kanal 24 and P4 focused on age groups around 35 years old. This is illustrated by Figure 3, which shows Kanal 24's own judgement of their location relative to the competitors.[8] In addition to age, the figure shows the educational level of the listeners. Also along this dimension the channels offer pretty similar program profiles.

Figure 3: *Profiles of Norwegian radio channels*



As discussed above, NRK P1 is by far the largest Norwegian radio channel (with a market share twice as large as that of P4 over the last few years). So why did Kanal 24 not choose a program profile close to that of P1 instead?

There are probably two main reasons for this. First, commercial radio channels like Kanal 24 must attract an audience that can generate high advertising income. In this sense

---

8 See http://pub.tv2.no/multimedia/kanal4/archive/00128/Annonsere_p_Kanal_128886a.pdf.

people between 30 and 40 years old seem to be particularly interesting, both in Norway and other countries. This age group has a relatively high purchasing power, and is more responsive to ads than older people. Second, empirical analysis indicates that a large share of the radio listeners dislike being interrupted by commercials. Since P1 has no ads, it would probably be very difficult for Kanal 24 to be competitive if it chose a program profile close to that of P1. Why should people listen to Kanal 24 and be interrupted by commercials every now and then if instead they could listen to a similar radio channel without ads?

Kanal 24's choice of location is thus as we should expect from economic theory: close to the biggest commercial competitor. But why, then, has Kanal 24 been so unsuccessful relative to P4 (with market shares of approximately 5% and 22%, respectively)? This is the focus of the next section.

3.2 Switching costs

People do not zap between radio channels to the same extent as they do between TV-channels; apparently, the switching costs are perceived to be too high to change radio channel several times a day. Thus, people might be perfectly indifferent between two radio channels, e.g. Kanal 24 and P4, *before* turning to one of them. However, after having tuned in to a station, people are willing to switch to the other channel only if they perceive it to be much better. Thus, it is generally hard for an entrant to capture large market shares if switching costs are high.

In most markets with switching costs an entrant must have a significantly lower price or higher quality than the incumbent. Commercial radio does not charge the listeners directly. However, empirical analysis shows that people tend to dislike advertising, which may thus be perceived as an indirect price for listening to commercial radio. In order to steal listeners from the incumbent's clientele, entrants may therefore have to accept a relatively low level of advertising and/or invest more in programming than the incumbent. Both these strategies are obviously costly.[9]

It is well known that firms tend to compete more fiercely *for* the market than *in* the market if switching costs are high. To take one example, Microsoft does not face much competition from rivals producing word processors. People are simply not willing to switch to a new word processor unless it is clearly superior to Microsoft Word. However, Microsoft

---

9 See Kind, Schjelderup and Stähler (2006) for a formal analysis,

initially had to fight vigorously to take over the "incumbent advantage" from the former industry leader, WordPerfect. In the case at hand, Kanal 24 expected to take over P4's clientele, and thus the incumbent advantage, when it was due to start broadcasting in the anticipated "warm" fourth FM network. On this background, Kanal 24's choice of program profile makes perfect sense. By choosing a profile close to P4 fewer listeners would switch back to P4 (in the fifth FM network) than if Kanal 24 presented a profile more different from P4.

However, as described above, P4 managed to change the rules of the game, and with permission from the regulated Norkring P4 started broadcasting on the fifth FM network approximately one week before the licence was actually valid. Furthermore, P4 was allowed to close down its transmission in the fourth network from the same date. Thus, P4's listeners switched to the fifth FM network, and as a result Kanal 24 had to go on the air in a «cold» network without a clientele of listeners. When the competition *in* the market started from midnight December 31st 2003, P4 maintained its incumbent position.

If Kanal 24 had anticipated that P4 would keep its clientele, it would probably have chosen a program profile that differed more from that of P4. After a few months on the air Kanal 24 found that it had to restructure its program profile, and in September 2004 it introduced a music and program profile closer to that of NRK's P3 than P4. Whether Kanal 24 will manage to attract a large share of P3's clientele and other listeners remains to be seen, but the success has not been overwhelming so far.

4. Concluding remarks

When the Ministry of Culture gave Kanal 24 the right to broadcast in the fourth FM network, it was widely expected that Kanal 24 would take over P4's base of listeners from midnight December 31st 2003. By employing some brilliant strategic moves, P4 managed to turn the game around. This is a textbook example of how to behave in a market with switching costs. It is also a textbook example of a rather unsuccessful regulatory policy, partly caused by fragmentation of responsibility. While the Ministry of Culture obviously aimed at improving the quality of the Norwegian radio market by giving the entrant Kanal 24 some initial advantages, the Norwegian Post- and Telecommunication Authority and the regulated Norkring became useful tools that P4 could use to minimize the threats from the entrant. With a more coherent regulation, it is likely that P4 and Kanal 24 would have ended up with somewhat more differentiated program profiles than they actually did. But both theory and observations from other countries suggest that the broadcasting market's ability to create diversity is limited.

If "57 channels and nothing's on" is the outcome of market forces, which tool may then be used to ensure diversity? Perhaps it is necessary to have non-commercial public service channels? At first glance, such a view is supported by the fact that NRK's three main channels have distinctly different profiles, while those of the competing commercial radio channels Kanal 24 and P4 are quite overlapping. However, NRK did not leave its motto "more of the same in two channels" until it was challenged by a major commercial rival (P4). Hence, it may be argued that commercial radio has lead to more pluralism in the Norwegian radio market, but mainly through the impact on the diversity within NRK.

Soon after the battle for the pole position between Kanal 24 and P4, and the tough infancy period for Kanal 24, the two rivals started to check out the opportunities for a merger. The Ministry of Culture poured cold water on these ideas; a license for a second commercial nation-wide radio channel was granted precisely to create more diversity. If both licenses were given to one and the same media firm, the radio market would be back to square one.

Stein Gauslaa, editor of the regional newspaper Agderposten, and one of the initiators behind Kanal 24, claimed that the Ministry of Culture was wrong. Gauslaa instead argued that a merger would give the owners strong incentives to differentiate the program profiles (Dagens Næringsliv, 22 February 2005): aggregate profit cannot be maximized by operating two almost identical radio channels. Hence, he insisted that the Ministry of Culture should welcome such a merger, since that would generate more differentiation. One possible objection against Gauslaa's recommendation is that it could be even more profitable for the merged company to close down one of the channels than to differentiate their profiles. However, this could presumably be prevented through licensing conditions. But in a democracy it would certainly raise political concerns to let one media firm more or less monopolize the nation-wide commercial radio market.

References:

Anderson, S. P. and S. Coate (2005) Market Provision of Public Goods: The Case of Broadcasting, Review of Economic Studies, 72 (4); 947-972.

Anderson, S. P. and J. J. Gabszewicz (2005) The Media and Advertising: A Tale of Two-Sided Markets, Discussion Paper 5223, Centre for Economic Policy Research; Handbook of Cultural Economics (V. Ginsburgh and D. Throsby, eds.), Elsevier.

Armstrong, Mark (2005) Public Service Broadcasting, Mimeo.

Armstrong, Mark and Helen Weeds (2005) Public Service Broadcasting in the Digital World, Mimeo.

Dahl, Hans Fredrik and Henrik G. Bastiansen (1999) Over til Oslo. NRK som monopol 1945–1981, Oslo: Cappelen.

Halse, Ketil Jarl and Helge Østbye (2003) Norsk kringkastingshistorie, Oslo: Det norske samlaget.

Hotelling, Harold (1929) Stability in Competition, Economic Journal 39; 41.57.

Kind, Hans Jarle and Lars Sørgard (2004) Mediekonkurranse: P4 versus Kanal 24 (English title: Media competition: P4 versus Kanal 24), Magma 2(8); 83-92.

Kind, Hans Jarle, Guttorm Schjelderup and Frank Stähler (2006) Taxation of newspapers: less differentiation and higher quality?, Mimeo.

Mazzoleni, G. (1986) Italy, pp. 169−190 in H. J. Kleinsteuber, D. McQuail and K. Siune (eds.): Electronic Media and Politics in Western Europe, Frankfurt: Campus Verlag.

McQuail, Denis (1990) Caging the Beast: Constructing a Framework for the Analysis of Media Change in Western Europe, pp. 313−331, European Journal of Communication (Vol. 5) 1990.

Messel, Kari Wicklund (2005) Kanal 24? En studie av TV2s oppkjøp av Kanal 24, og de mulige konsekvenser dette kan ha for radiokanalens nyhetsutvalg samt nyhetsmangfoldet i Norge, Bergen: Department of information science and media studies (master thesis).

Ot.prp nr. 55 1989-90: TV 2. Lov om reklame i kringkasting m.v.

Siune, Karen (1986) Broadcasting, point of departure, pp. 44−54 in Denis McQuail and Karen Siune: New Media Politics, London: Sage.

St.prp. nr. 88 1981-82: Om medieutvikling og nye kringkastingsformer.

Tunstall, J. (1986) Great Britain, pp. 110−134 in H. J. Kleinsteuber, D. McQuail and K. Siune (eds.): Electronic Media and Politics in Western Europe, Frankfurt: Campus Verlag.