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## The Ecology of a Dual Television Market: Competition and Diversity in the Netherlands

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*This case study analyzes the conditions under which diversity of program supply changes in dual television markets. It is hypothesized that diversity is on the one hand related to market structure and financial commitment to content. And on the other hand that public service broadcasting can under some conditions have a positive impact on financial commitment to content of commercial broadcaster, and diversity of commercial broadcasters. These assumptions are tested for the Dutch television market. The findings suggest a strong relationship between market structure and diversity and are inconclusive with regard to the relationship between financial commitment to content and diversity.*

### Introduction

#### *Normative Policy Goals and Competition between Public Service and Commercial Television*

Since the early 1980's some major changes have occurred in the Western European broadcasting sectors. Although traditional public service broadcasters (PSB)<sup>1</sup> remained basically in place, they were joined by commercial broadcasting companies, which are funded by the private sector and traded in the free market.<sup>2</sup> What emerged was the new dual system of public and private broadcasting. As Hoffmann-Riem (1996) elaborates these developments were accompanied by at times intense political controversies about the future of broadcasting:

In these debates critics raised such issues as fears about the loss of program quality, the public service concept, and the threat to vulnerable values. Others stressed the advantages of increased choice and the prospect of satisfying consumer to a greater extent. Both sides pointed - from their respective viewpoints - to experiences outside of Europe, particularly the United States. (p. 4)

This paper focuses on the role public service channels play in the ecology of the Dutch dual television market. The results have implications for a better understanding of public service broadcasting as a competitor, with the task of preventing market failure. The prevention of market failure in terms of performance measures such as diversity and quality has been one of the central arguments for a dual television system.

In the political arena the normative market-failure argument has been increasingly put under pressure. On the one hand we have a continuing normative idea about diversity as a central goal of communication policy. On the other hand, we have witnessed what can be called a regulatory paradigm shift. This regulatory paradigm shift is related to differing ideas about how to achieve

normative societal and cultural concepts such as diversity. Regulatory frameworks, especially in the telecommunications sector but also in the audio-visual sector, have increasingly shifted from the public provision of services to imposing obligations on service providers. Moreover, the idea that the public provision of services (and the associated regulatory paradigm) is the best way to achieve pluralistic media and communication is increasingly called into question.

Parallel to the calling into question the current underlying rationale for regulation, we have also witnessed the increasing dominance of competition policy as policy intervention both on a national and supranational level in the audio-visual sector. The 'economic turn' in policy has at its core assumptions about the more adequate ability of economic mechanisms to govern the communication sector and achieve social and cultural welfare (cf. van der Wurff & van Cuilenburg 2001). In light of these changes, where regulators rely on competition and other such economic mechanisms to govern the media and communication sectors there is an eminent need to better understand these markets and mechanisms first.

### ***The Dutch TV Market: From Public Monopoly to a Competitive Market***

In the Netherlands there were some early attempts to introduce commercial broadcasting despite the particularly harsh political opposition. In fact the story of commercial television in the Netherlands starts already in the mid 1960's with a short prologue set off the North Sea Coast. The Dutch enjoy the dubious privilege of having had the world's first pirate television station operated from an artificial island just off the territorial waters. The station, owned by R.E.M (Reclame Exploitatie Maatschappij [Advertising Exploitation Company]), was closed down by the police after less than 5 months on air, based on its breach of national maritime law (van Panhuys & van Emde Boas, 1966). In 1965 the political discussion around the introduction of advertising in broadcasting even brought down the government of prime minister Marijnen (cf. van Eijk, 1992). And although consecutive governments did amend national Media Law to allow for advertising on PSB channels, it was the developments in European Media Policy (in particular the "Television without Frontiers Directive" (Council of the European Communities, 1989)) that helped to finally break the public television monopoly in the Netherlands.

In 1989 the first Dutch generalist commercial channel ('RTL Veronique'/today RTL4) circumvented Dutch Media Law and started broadcasting as an international cable channel (registered in Luxembourg). In fact though both programming and advertising was exclusively targeted at the Dutch market. It took RTL only 2 years to become audience market leader. During most of the 1990s, RTL is the dominant commercial provider (2 channels) joined by several individual Dutch and foreign owned commercial channels. In the late 1990's new phase of consolidation set in and today there are two dominant commercial groups, on the one hand RTL (Bertelsmann) and on the other hand SBS (Sweden/ SBS Broadcasting) with 3 channels each.

The Dutch PSB system with its three channels did remain basically in place. It is in many ways unique in the European context. A number of public broadcasting organisations (private non-profit organisations with members) share the airtime available on the three channels. The origins of this system can be found in the traditional religious and social pillars along which Dutch society was predominantly organised up to about the 1980's. Each pillar of society (e.g. Protestant, Catholic, Christian Democrat; Socialists, etc.) had its own broadcasting organisation. Airtime and funding was distributed according to the number of members of each PSB organisation. This type of organisational diversity was deemed to insure reflective diversity of content on radio and television channels representing all groups in society. Today most of the original PSB organisations are still operating, however since the depolarisation of Dutch society they have cut themselves loose from the original groups they represented, however the traditional relationships can still be relevant. The organisation of the three PSB channels is coordinated by an umbrella organisation (NOS), which also programmes the evening news and sports. Regulators are currently putting the PSB organisations increasingly under pressure to create synergies between each other in order to increase cost-efficiency.

### **Re-framing the Hypothesis & Research Questions**

#### ***The so-called 'Convergence Hypothesis'***

In the context of Western Europe the effects of the introduction of commercial broadcasting on programming choices available to the audience has so far been predominantly discussed and

researched along the lines of the so-called 'convergence-hypothesis'. The term convergence suggests that the introduction of competition has led to all channels (both public and commercial) becoming more and more alike and offering 'middle of the road content'<sup>3</sup>. As pointed out by Hallenberger (1998)<sup>4</sup> an underlying assumption contained in this hypothesis is that 'convergence' typically implies that the standard of programming is lowered to the assumed general low level of commercial channels.

In the Western European dual broadcasting systems, much of the debate centres around the negative impact of in particular competition between commercial channels, but also between public and commercial channels on overall programme diversity. Research has been done in different European countries, but also cross-national studies, to further investigate the 'convergence hypothesis' with very different results. Typically these studies focus on either quantitative or qualitative programme analysis. For example longitudinal research conducted in Germany (Krüger 1991, 1996, 2001) suggests that the introduction of competition has not led to channels becoming more and more alike, rather it has been argued that public service broadcasters and commercial broadcasters tend to emphasize different content segments. Siune & Hulten (1998) indicate that this is also the case in Nordic countries. On the other hand there are studies supporting the 'convergence hypothesis' for example de Bens (2000, p. 170) concluded that in the Flemish case the introduction of commercial broadcasting has not resulted in more diversity, but rather in a "spiral movement toward more convergence".

Research related on the 'convergence hypothesis' focuses mostly on the level programme output, or what in economic terms could be called part of the performance of a particular market, without specifically further investigating the impact of the characteristics of that particular market at a given point in time. This is especially relevant with regards to the impact of PSB channels may or may not have in a particular market. In an international comparison of PSB channels (McKinsey 1999) one of the conclusions reached was that some PSB channels with significant market shares and a distinctive approach to programming (and fulfilling their public service remit) managed to "raise the level of broadcasting in their markets by obliging their competitors to imitate them" (p. 23). This conclusion could be reformulated as the hypothesis that under particular conditions PSB channels can have a positive impact on the performance of a particular market.

### ***Central Questions***

In order to further investigate the above stated hypothesis in the case of the Dutch television market it is important to identify place and nature of the impact of PSB channels in a market. The McKinsey Report (1999) observes examples of where particular types of PSB high production value programming have triggered investments by the commercial competitors into similar programme types. This could be reformulated with the interpretation that initially commercial broadcasters pursued a low cost strategy with a high percentage of relatively low -cost imported content and middle of the road-media products. Consequently, in some markets, they had to abandon this strategy, since they could not compete with the relatively high production standards of the PSB channels, which viewers appreciated and were accustomed to. In other terms two situations can be identified: 1) Programming strategy of commercial channels lead to low programming investment and low commercial channel diversity, and thus negatively impacting overall diversity. 2) Commercial channels (triggered by public competitors) investing more in a wider range of programme types and thus overall diversity increases.

Taking into account Market data illustrates the explosive growth of the Dutch television market, specifically the growth of commercial channels both in revenue and expenditures. Furthermore, taking into account that one of the distinguishing factors of the PSB organisation is the availability of an independent source of revenues and that they therefore have the ability to conduct themselves in terms of financial commitment to content independent of commercial considerations. This leads to the formulation of the following central questions:

- Q1. How can longitudinal diversity variations in the Dutch television market be explained?
- Q2. What role do PSB channels play in these variations?

## **Theoretical Foundations & Conceptual Model**

### ***Mapping SCP***

Industrial organisation theory is especially useful when looking at markets that are dominated by a few firms. This economic perspective delivers an approach, based on strategic decision making, to analysing the functioning of such firms in concentrated markets. Moreover, this approach has proven to be a very valuable tool to clarify the role of government in regulating economic activity. As Ramstad (1997) argues, industrial organisation theory in media economics and analysis can move the research in the field beyond mere ownership analysis and makes space for a better explanation of the strategic behaviour of media companies. One central concept of industrial organisation theory is the SCP paradigm, which stipulates that market structure determines market conduct and thereby affecting market performance.

In order to overcome some of the relevant criticisms<sup>5</sup> of the SCP -model (e.g., Wirth & Bloch 1995) the emphasis on the structure, conduct and performance relationships, in the context of this study, will not be in terms of the predictive character of a neo-classical economic model. Rather these relationships serve as patterns to analyse markets where the different institutional frameworks<sup>6</sup> in which two very different types of market actors (one commercial and one public) operate have definite influences. Thus, although the SCP model is clearly designed for predictive purposes and is reduced to bare logic, it can be further elaborated by adding other factors that are specific to the cases of dual television markets (such as the impact of developments in the advertising markets and regulatory frameworks).

### ***The Financial Commitment Approach***

The financial commitment model is in essence based on SCP relationships and proposes an emphasis placed on financial resources as a dependent variable, whereas intensity of competition is proposed as an independent variable. It has its origins<sup>7</sup> in research focusing on competition in newspaper markets in the United States (cf. Lacy 1992, Lacy 2000). The model stipulates that as competition increases the amount of money committed to content increases. Due to competition media organisations must differentiate their content so they will be more attractive than their competitors. This results in more expenditure on content than would occur without competition. It is necessary that media organisations need to attract audiences through content. As the financial commitment to content increases, content 'quality' increases. 'Quality' in this context is conceptualised here as a standard defined by the producers of the content. The audience's utility from the content increases, due to the increase in the content's quality. And with the increase of the audience's utility the media organisation's performance in the market improves.

### ***Diversity and Financial Commitment to Content***

From a media policy perspective and part of the traditional public service remit in specific a central goal (and therefore performance measure) is termed as *diversity*, a normative idea that lies at the heart of various concepts of pluralistic mass media (cf. van Cuilenburg 1998, 1999). Opinions differ greatly on what diversity means, how and by which measures it is best achieved. McQuail (1992) summarizes:

Pluralistic mass media can contribute to diversity in three main ways: by *reflecting* differences in society: by giving *access* to different points of view and by offering a wide range of *choice*. Each implies a somewhat different version of what diversity means (or standard by which it should be assessed), although they are not mutually exclusive. (p. 144)

The first concept of 'reflective diversity' would suggest the more or less proportionate reflection of differences in a society. The second concept of 'access' relates to the idea that media provide equal access to their channels for all people and ideas in society. (cf. McQuail & van Cuilenburg 1983; van Cuilenburg 1999). The third concept of "choice" emphasizes a great number of products/programmes available to the consumers/audience. Choice can on the one hand implicate the increase of quality of consumption goods (in this case television programs) and on the other hand be

seen as making different opinions, information, ways of living available to the viewer. This study focuses on diversity as choice.

Typically financial commitment as conduct is linked with ‘quality’ as a performance measure. In a study (Powers 1993) that applied the model to the commercial television market in the US the relationship between competition, conduct and ratings in local television news in the US was investigated. Its purpose was to determine the relationship between conduct measures, such as financial commitment to news and performance measures such as ratings. However, ratings were seen as indirect expression of ‘quality’ (assuming that if quality increases, ratings increase).

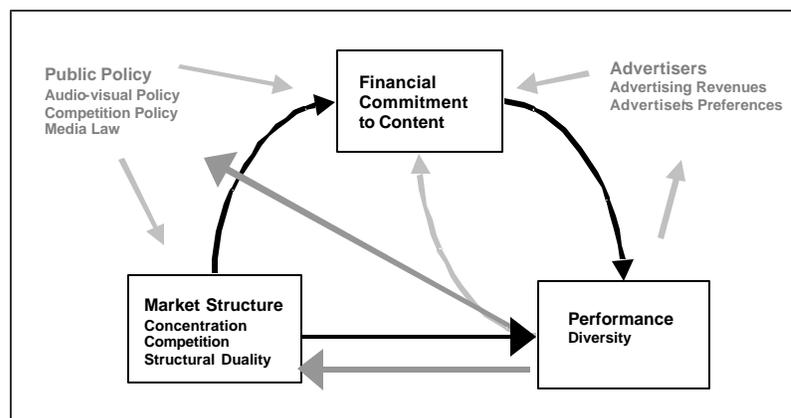
If we open up the utility of the model to a wider range of performance criteria such as diversity as choice it is important to acknowledge the inter-relationships. With regard to performance norms of policy-makers the association between performance measures such as quality and diversity as choice is an important issue in the television sector. On the one hand, for example Busterna (1988) and Schulz (2001) suggest that content quality and content diversity are respectively dimensions of each other. On the other hand some studies on the relationships between quality and product variety (e.g. Waterman 1989) suggest that one may be a trade off to the other (there can either be investments into quality or into diversity).

The relationship between cost and diversity is of central importance. For example Schulz (2001) argues that cost of production is a major factor in particular with regard to the provision of diversity in information programs. Television content like most other consumer information products have high so-called first copy costs and almost negligible marginal costs (for duplication or distribution). Different models have shown that in competitive markets for consumer goods the greater are the fixed cost the less the resulting variety (cf. Waterman 1989).

In the dual or two-tiered television system one of the distinguishing factors of public service broadcasters is the availability of an independent source of revenues and the obligation to make a financial commitment to specific and diverse types of content. This particular characteristic of some of the major market actors in dual television markets make Lacy’s (1992, 2000) financial commitment model in relation to diversity particularly interesting. An important assumption is that diversity increases the audience’s utility and that therefore competition with public channels also increases the incentive for the commercial channels to provide a wider variety of programming resulting in an increase of overall market performance in terms of diversity.

In order to include financial commitment as conduct in a conceptual model it is firstly necessary to adapt the basic structure/conduct/performance (SCP) model toward dual television markets. It has to allow for a differentiation between commercial and public market actors, by emphasising structure, conduct and performance under the influence of public policy and advertisers. Television markets are highly regulated markets thus public policy has a strong influence. Television markets are also, due to the dual nature of its products, subject to influence from advertisers in varying degrees depending on the nature of the market actor. Figure 1 visualises the conceptual model for this study.

Figure 1. Conceptual Model for Analysis of Dual Television Markets



(cf. Roth 2001)

Market *structure* provides the framework in which media organisations operate. In this model market structure is not only seen in relation to variables such as *concentration* (competition intensity taking into account ownership of organisations), or *competition intensity* (taking into account the overall number of organisations), but also by the level of *duality*. Structural *duality*<sup>8</sup> describes a television market (dual or two-tiered television markets) in terms of the presence of both commercial and public television channels or organisations. Whereas, the term duopoly simply describes the condition where there are only two suppliers (in absolute terms) of a certain commodity or service, the term *duality* describes the specific condition of television markets where there are two different types of suppliers offering television programmes, one public, the other commercial.

Market structure has an influence on *conduct*. Conduct, in this case *financial commitment to content*, is influenced in the case of public broadcasters to a large degree by an interpretation of a public service obligation and to a lesser degree by market considerations. However, the interpretation of public service obligations may not be wholly independent of market considerations. In the case of commercial broadcasters conduct is influenced by market structure, to a lesser degree by *public policy* (regulatory intervention in case of pornography, violence, etc.), and to a higher degree by industry measures of performance. Conduct has an influence on performance. In this case the variable is *diversity*. Performance in turn has an influence on conduct. Organisations modify conduct in order to achieve an anticipated performance.

Overall the model puts an emphasis on conduct in terms of financial commitment under influence of market structure and performance, but that structure and performance maybe affected by different outside influences such as *advertisers* in different degrees depending on whether the market actor is a public or a commercial broadcasters. Since media markets are highly regulated markets, *public policy* is a major outside actor influencing markets structure (but also conduct).

### ***Hypothesis***

Based on the basic relationships between market structure, financial commitment to content and diversity developed in the Dual Television Market Model (Figure 1) the following hypothesis are formulated. In this exploratory study the relationship with policy and the advertising market are not included. The goal of the analysis is to investigate the explanatory potential of the model applied to the case of the Dutch Television Market.

#### *Changes in Diversity*

- H1. Public channel diversity has not decreased significantly.
- H2. Individual commercial channel diversity can increase in competitive dual tv markets.
- H3. The contributions of individual commercial channels to system diversity is not all negative.

#### *Market Structure and Diversity*

- H4. Public funding levels and market share of public channels are positively related to system diversity.
- H5. Commercial funding levels of public channels and system diversity are negatively related.
- H6. Concentration levels are negatively related to system diversity.

#### *Market Structure and Financial Commitment to Content*

- H7. Public funding levels and market share of public channels are positively related to financial commitment to content of commercial channels.
- H8. Public funding levels and market share of public channels are positively related to financial commitment to content of public channels.

- H9. Concentration levels are negatively related to financial commitment to content.

#### *Financial Commitment to Content and Diversity*

- H10. Financial commitment to content and diversity are positively related.
- H11. Financial commitment to content of commercial channels and diversity are positively related.

## Data & Operationalisation of Variables

For testing of the hypothesis secondary annual data for both market structure, conduct and performance are used. The analysis focuses on the primetime (18-24 h.). It covers the developments in the Dutch television market for 1993 to 1999.. The chosen time period accounts for the major structural changes in the Dutch television market, early after the introduction of commercial television and the addition of new channels and different stages in a maturing market. The relevant market relates to nationally distributed general and special interest channels whose main target are national audiences in their respective markets. They are distributed by either/and/or terrestrial broadcast, cable or satellite and reach over 75% of all TV-households. Excluded are international cable and satellite channels, such as National Geographic, CNN etc., whose target audience is international. The conduct and performance variables focus on national generalist channels only.

Changes in Diversity is analysed in terms of '*diversity as choice*' – assessing diversity in terms of content choices available to the audience. Here consistent with McQuail (1992) we can differentiate between diversity of content "as sent" and "as received". Diversity of content "as sent" can be measured by conventional line of categorisation. A volume of content offered by a single or set of channels can be assessed according to the number of different types of content. (News, Information, Films, etc.). These content types can be further differentiated into formats and genres. Here, according to Litman (1979, as quoted by McQuail 1992) a distinction can be made between "horizontal" and "vertical" diversity. "Horizontal" relates to the different programmes available to the audience at any given time. "Vertical" relates to the programmes offered by one channel (or several channels) over an entire schedule (a week, a month, a year). In context of the hypothesis the focus is the overall performance of a set of channels operating in a specific market over the period of a year – and thus the concept of *vertical diversity as sent* is most useful here. It is operationalised as the distribution of program types across channels using the *Relative Entropy Index*. This index has been used for measures of vertical diversity of individual channels and for the programming supply across channels (cf. Mc Quail & van Cuilenburg, 1983). Researchers have combined 'internal vertical diversity' (or 'channel diversity') and 'external vertical diversity' (or 'system diversity') with the individual contributions of channels to diversity and the difference between individual channel programming for a more multi-dimensional analysis of diversity (cf. Vochteloo & Emons 1995, Ishikawa et.al. 1996, Hellman 2001).

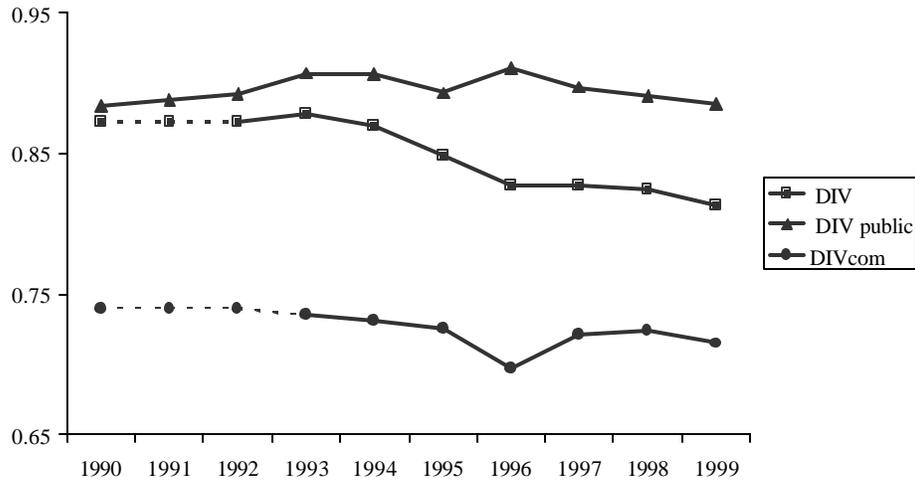
The diversity data used in study is based on the program category system of the Dutch broadcasters and ratings research agencies. In this case the data collected covers 24 program categories. From the different secondary data sets a number of variables are extracted, five for market structure, three for financial commitment to content and three for diversity. Table 1 (appendix) shows and overview of the individual variables.

## Results

### *Changes in Diversity*

Overall vertical diversity has decreased since the introduction of commercial television. Figure 2 shows that all national general interest channels taken together have offered relative consistent less system diversity across the different program categories. Diversity of the public channels together is relatively consistent equal or slightly higher than early after the introduction of commercial broadcasting. Diversity of commercial channels together initially decreases up to 1996 and then increases at the same rate. High overall diversity up to 1994 suggests that initially programming of commercial channels supplemented programming of public channels and therefore positively affecting diversity of choice. After 1996 however, public programming slightly decreases in diversity, but commercial diversity increases with a negative effect on overall diversity. This suggests programming of both side became more similar in terms of distribution across different programming categories.

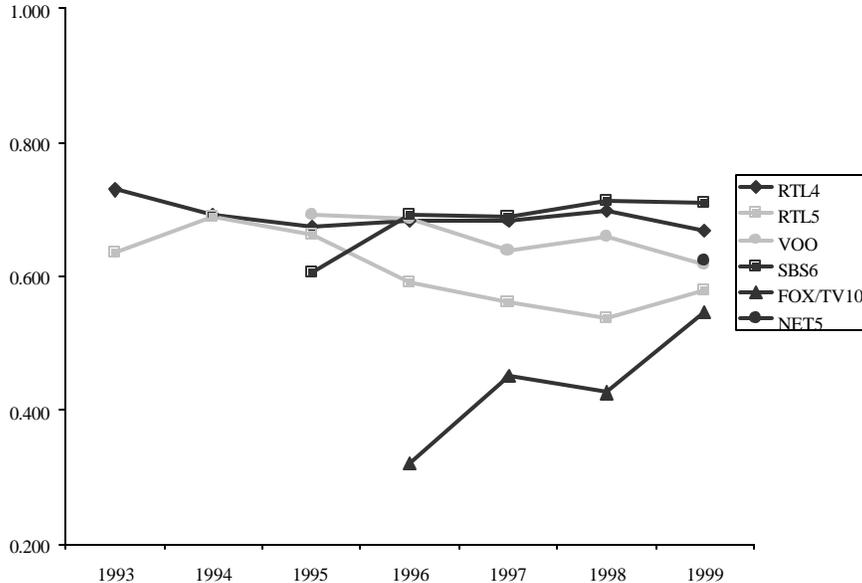
Figure 2. Changes in Diversity / NL 1990-1999



datasource: 1993-1999 Intomart (24 program categories); 1990-1992 KLO (19 program categories); missing data for commercial television 1990,1991, 1992

Individual internal diversity of commercial channels (Figure 3) show that on the one hand RTL4, SBS6, and FOX/TV10/V8, have either increased remained stable at a high level of their internal vertical diversity. Whereas on the other hand RTL5 and VOO have decreased in diversity of their programming supply.

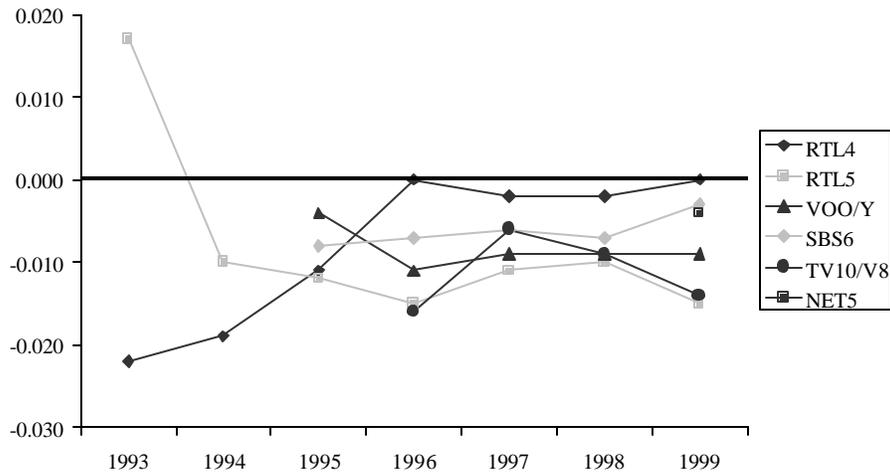
Figure 3. Changes in Individual Channel Commercial Channel Diversity / NL 1993-1999



datasource: 1993-1999 Intomart (24 program categories)

The contribution of individual commercial channels to diversity (Figure 4) shows that only RTL5 in the early years made a significant positive contribution to system diversity. However, RTL4 and SBS6 contribution to system diversity became consistently less negative.

Figure 4. Contributions of Individual Commercial Channels to Diversity / NL 1993-1999



datasource: 1993-1999 Intomart (24 program categories)

Overall the contribution of commercial channels to system diversity has been negative. Diversity of public channels has fluctuated, but remained at a high level. However, some commercial channel have increased their internal diversity significantly.

#### **Market Structure and Diversity**

Overall system diversity is positively correlated to public funding market share ( $r_{PF-DIV} = .736$ ), to the share of commercial funding of public channels ( $r_{CP-DIV} = .879$ ), to ownership concentration ( $r_{OC-DIV} = .975$ ), to editorial concentration ( $r_{EC-DIV} = .996$ ) and to the market share of public channels ( $r_{SD-DIV} = .992$ ). Diversity of public channels is positively related to editorial concentration ( $r_{EC-DP} = .670$ ) and to the market share of public channels ( $r_{SD-FC} = .707$ ).

#### **Market Structure and Financial Commitment to Content**

The relationship between market structure and conduct was supported by significant positive correlation between public funding market share and financial commitment to content of commercial channels ( $r_{PF-FCC} = .805$ ). The share of commercial funding of public channels correlated positively with financial commitment of public channels ( $r_{CP-FCP} = .700$ ). Overall financial commitment to content is significantly positively correlated to the share of commercial funding of public channels ( $r_{CP-FC} = .740$ ), to levels of ownership concentration ( $r_{OC-FC} = .773$ ), to levels of editorial concentration ( $r_{EC-FC} = .847$ ), and to the market share of public channels ( $r_{SD-FC} = .806$ ).

#### **Financial Commitment to Content and Diversity**

The relationship between *conduct and performance* was supported by significant positive correlations between financial commitment to content and system diversity ( $r_{FC-DIV} = .827$ ).

### **Discussion**

#### **Changes in Diversity**

The results clearly show a decline in system diversity and a less pronounced downward trend in commercial channel diversity. However, public channel diversity does not mirror this trend and the hypothesis on public channels retaining high levels of diversity in the programming schedules in terms of the program categories since the introduction of commercial television (H1) has been confirmed.

Moreover, some individual commercial channels have indeed increased their internal diversity (H2). However, others have not. The channels that have, are both the leading channels of each of the two commercial groups (RTL and SBS). It can be suggested that both these channels

started out offering schedules with lower diversity and with a maturing market started to compete more with the schedules of the public channels and thus had to increase diversity of their own schedules.

The contribution of individual commercial channels to system diversity has been almost entirely negative (with the exception of RTL5 in the early years), thus a positive impact of the commercial program supply in these terms could not be confirmed (H3). However, again, the two main commercial channels (RTL and SBS) show consistently less negative contributions to system diversity to an almost neutral point.

### ***Market Structure and Diversity***

The correlation analysis supports the positive relationship between public funding levels on the one hand, public channels market shares on the other hand and overall system diversity (H4). This suggests that well publicly funded public channels with a strong market position contribute positively to overall vertical diversity as sent.

However, the negative relationship between system diversity and on the one hand levels of commercial funding of public channels (H5) and concentration levels on the other hand (H6) could not be supported. On the contrary the analysis showed significant positive correlations between system diversity and editorial concentration, ownership concentration and commercial funding of public channels. This suggests that high concentration levels and a high percent of public channel income from advertising has a positive relationship with diversity.

### ***Market Structure and Financial Commitment to Content***

The relationship between financial commitment to content of commercial channels and the funding levels and market position of public channels was only partially supported (H7). The correlation only showed a significant positive relationship between public funding levels and financial commitment to content of commercial channels, and no relationship with the market position of public channels.

There was no support for the relationship between financial commitment to content of public channels and their funding levels and market position (H8). Rather the correlation suggests a positive relationship between the share of commercial income of public channels and their financial commitment to content.

Also the negative relationship between concentration levels and overall financial commitment to content could not be confirmed (H9). The analysis rather suggests a positive relationship between financial commitment to content and both editorial and ownership concentration in addition to a positive relationship to the strength of funding and market position of public channels.

### ***Financial Commitment to Content and Diversity***

Although the results support a general relationship between financial commitment to content and system diversity (H10), there was no significant correlation between vertical diversity as sent and neither financial commitment to content of commercial channels (H11), nor with financial commitment to content of public channels.

### **Conclusion**

The findings support the basic explanatory assumptions of the model for dual television markets. Based on the model it can be suggested that the introduction of competition in the Dutch television markets does not necessarily lead to a downward spiral of 'more of the same', or 'convergence', at least within the terms of vertical diversity as sent and the limitations of the operationalisation of this type of diversity chosen for this study. Although system diversity has been in decline, public channels continue to offer a high level of diversity and some individual commercial channels diversity has even increased. There is support for the relationship between strong (and well funded) PSB channels and system diversity. There is equally some indication for a relationship between public channels market position and financial commitment to content, however the link between financial commitment to content of commercial channels in particular and the strength of PSB channels was only partially supported. Finally there is some support for arguing a relationship

between financial commitment to content and diversity, but the findings did not support any particular role of PSB channels or commercial channels in that.

This study has an exploratory character and was limited by the availability of comparable secondary data (and thus a small data set), and the restrictions of a cases study. However, I believe that it illustrates the usefulness and supports the overall argument of the model. A proper empirical test of the model would require analysis of several dual television markets and depending on the quality of available data could be broadened to a multivariate analysis. And finally to elaborate the explanatory potential of the model also the non-empirical aspects such as the regulatory and policy framework in which the channels operate need to be included and analysed. The results then can not only contribute to an understanding of competition in dual television markets, but also potentially have implications relevant for media policy makers.

## Footnotes

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<sup>1</sup> The western European PSBs are sometimes referred to as 'state broadcasting organisations', in particular with regard to funding provisions (e.g. Brown, 1996). It is therefore important to distinguish between different kinds of financial relationships between PSBs and the state. As argued by Wagner (1999) an underlying principle of a general PSB remit is the freedom of expression and programme autonomy, from this follows the important principle that public broadcasting must be distanced from the state, autonomous and independent. A key role is played by independent supervisory bodies. The traditional and most widely spread means of funding is a mandatory broadcasting fee (or license fee) and typically paid directly and separately by each household and is either collected by the PSBs themselves or by an independent collection agency. In some cases a third party, such as utility companies or media authorities have been given the task. In the EU there are however two exceptions where there is a substantial amount of state funding out of the fiscal regime or with direct state subsidies: the Netherlands and Spain. Only in those two cases the term 'state broadcasting organizations' could be arguably appropriate (cf. EBU Legal Department 2000; Kops 2001)

<sup>2</sup> To a limited extent commercial broadcasting had been already in existence (as for example in Great Britain with Independent Radio and Television), but in those instances it was still organised as a monopoly.

<sup>3</sup> This can be related to the ideas of economist Hotelling (1929), who argued that competing sellers tend to offer products that are too much alike. Hotelling showed that under specific demand assumptions two competing firms will market products of "excessive sameness". His theories were consequently elaborated and also applied to media markets, (e.g. Steiner 1952, cited in Owen & Wildman 1992, p. 65; van Cuilenburg 1999).

<sup>4</sup> Hallenberger (1998) also points out that this popular interpretation of the convergence thesis departs from the original scientific thesis, which stated that [*my translation* ], "generalist channels with a large market share within a dual system (public/commercial) would eventually simulate each other on a structural, content and qualitative level. This thesis is based on the argument that in a competitive situation the pressure of identical market forces would overrun the differentiation in organisational structures and funding systems" (Bruns & Marcinkowski 1996 p.461, as cited in Hallenberger 1998).

<sup>5</sup> As Wirth and Bloch (1995) point out, there are some relevant criticisms associated with the basic SCP paradigm. Firstly, market structure is not exogenously determined because performance and conduct often affect market structure. Secondly, market performance is a multidimensional concept and therefore difficult to define and measure. Thirdly, the SCP paradigm does not properly depict the relations between the different elements in the market. And finally that, "the underlying assumptions of the SCP approach (e.g., that firms attempt to maximise profits, that firms have perfect information, and that tastes are constant) which lead to the conclusion that perfect competition is the ideal market structure, have led economists who reject the neo-classical approach to industrial organisation analysis to reject the SCP approach" (Ferguson & Ferguson 1994, Scherer & Ross 1990; as cited in Wirth & Bloch 1995, p. 18.). However, the basic SCP paradigm has since been further developed and the revised SCP models have overcome some of the limitations of its basic 'ancestor'.

<sup>6</sup> For a further discussion of predictive versus pattern models in respectively neoclassical and institutional economics see Dugger (1979)

<sup>7</sup> Lacy refers to the Litman & Bridges (1986) article as initial formulation of the 'financial commitment theory' on the relationship between competition and expenditures in the newsgathering process.

<sup>8</sup> Whereas, the term duopoly simply describes the condition where there are only two suppliers (in absolute terms) of a certain commodity or service, the term *duality* describes the specific condition of television markets where there are two different types (one public, the other commercial) of suppliers offering television programmes.

## Appendix

Table 1. Overview Variables

<b>PF</b>	share of public funding in market size	$b/(a+b)$	$0 < PF < 1$	a= tv ad market b= license fee revenues
<b>OC</b>	ownership concentration levels	$\frac{HHI}{\sum m_i^2}$	$0 < OC < 1$	$m_i$ =audience market share organisation i
<b>CP</b>	PSB dependence of commercial revenues	$a/r$	$0 < CP < 1$	r=total revenues PSB a=commercial revenues PSB
<b>SD</b>	level of structural duality in terms of market share	x	$0 < SD < 1$	x is the cumulated market share of public television
<b>FC</b>	financial commitment to expensive content	f	$0 < FC < 1$	f = proportion of broadcasting time devoted to original fiction on all channels
<b>FCP</b>	financial commitment to expensive content on PSB	fp	$0 < FCP < 1$	fp = proportion of broadcasting time on public channels devoted to original fiction
<b>FCC</b>	financial commitment to expensive content on commercial channels	fc	$0 < FCC < 1$	fc = proportion of broadcasting time on commercial channels devoted to original fiction
<b>DIV</b>	vertical diversity as sent on all channels (system diversity)	$(-\sum p_i \log p_i) / \log n$	$0 < DIV_c < 1$	relative entropy DIV <sub>c</sub> is Diversity in terms of the characteristic programme categories c, n is the number of characteristic programme categories c, p <sub>i</sub> is the proportion of programme units or programme time in one particular category i of the characteristic programme categories c
<b>DP</b>	vertical diversity as sent on all public channels	$(-\sum p_i \log p_i) / \log n$	$0 < DP_c < 1$	relative entropy: ibid
<b>DC</b>	vertical diversity as sent on all commercial channels	$(-\sum p_i \log p_i) / \log n$	$0 < DC_c < 1$	relative entropy ibid

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