

Market concentration and Transnational Ownership

- a comparative analysis

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Christian Edelvold Berg,

Center for Business & Politics,

Copenhagen Business School

cb.cbp@cbs.dk

Abstract

The paper investigates the market concentration for Television markets in the 33 sample markets. The results show that these markets continue to be under conditions of oligopoly ranging from moderate to highly concentrated, measured first by applying CR and then HHI measurements. Furthermore, the relationship between size and market concentration is questioned using a market intervention approach. Additionally we indicate that market intervention alter the rules of the game, and that based on this analysis the impact of size on market concentration might be a myth. This is followed by an analysis of Transnational Ownership impact based on ownership of the 6 largest companies in the sample, which indicate that the TV markets are dominated by relative few usually local payers. We argue that currently the MNCs do not pose a hazard for most markets, but there are signs warranting further research. PSBs remain fairly strong in the sample market and appear to play an important role as counterbalances towards domestic and international commercial competitors.

Keywords

Market concentration, Media economics, Transnational Ownership, Cross-national comparison

Introduction

Concentrated media ownership has been increasingly in focus as broadcasting is turning more global due to increased internationalization and technological advances. These developments have resulted in multi-channel environments (Hoskins et al., 2004), but also international ownership where Multinational Corporations (MNCs) utilize economies of scale by entering new markets with similar content, or where domestic TV-stations are acquisitioned by international media corporations. The strategic answer from domestic private TV and PSBs was to launch their own to stem loss of share and revenue. Inadvertently these strategic actions were necessary to reduce bleeding of share and revenue, but also intensified the

audience fragmentation. The development of the niche channels led to fragmentation visible by studying the leading channels audience decline, which over time can undermine the traditional FTA (free-to-air) advertisement funded business model. If perceived not on the local level, but on the global, the development can be argued to enable increased utilization of economics of scale as well as altering local media conduct against the global conglomerates in attempts to deter new entrants (Doyle, 2002). However, while the overall channel concentration might be reduced as a consequence of increased supply, in some markets this is attributable to cannibalism of own-audience by using niche-channels to deter entry of competing commercial companies. This is reasoned in the economic logic of the media content goods which cause conditions of imperfect competition as well as allows utilization of increasing returns to scale economies. This is in line with theory as the economies of scale in the television market can be argued being a consequence of the initial sunk cost investment combined with the continuous investment in programming, i.e. media content goods, which being non-rival in nature can be re-used as long as there remains interest in the content. This follows the logic presented by Shapiro and Varian (2003:50) that information goods are "costly to *produce* but cheap to *reproduce*" as a consequence of the good characteristics. What this means is simply that these goods have high fixed costs, but also as a consequence of the non-rival good characteristics low marginal costs.

In both literature and policy documents it is argued that TV markets are driven towards high concentration; especially in the small markets as a consequence of scarcity conditions which function as drivers towards increasing concentration. As argued by Gillian Doyle (2002:16): *"The larger and wealthier member states, such as France, Germany, Spain and Italy, can and often do support a greater overall number of suppliers and a greater diversity of media output than smaller or poorer member states such as Ireland, Portugal and Greece. Some counter-examples exist of markets which, although small, nonetheless sustain a diverse provision of media e.g. in northern European and Nordic countries..."* ... *"But in general, the smaller scale of resources available for media provision in small peripheral markets makes them prone to concentrations of ownership which, in larger markets, would be deemed unacceptable"*. While the argument is more nuanced, it remains in line with the policy perspective from the European Commission, as stated in point 2.3 on media concentration in the working paper on Media pluralism (2007): *"In the last ten years, media concentration has been an important issue in all parts of Europe. A major concern is the possible domination of a number of markets by national and international companies"*. However the EC (2007) also link market concentration with market volume: *In smaller markets it is economically impossible for the advertising spend to sustain more than a few broadcasters. The size of the TV advertising market in 2004 in Finland, for example, was 230 million €, in Hungary 242 million € and in the Czech Republic 246 million € compared with a market size in Germany of 4235 million €, United Kingdom 5537 million € or Italy 4124 million €...*". Theoretically we should be able to identify higher concentration in small markets based on assumption of company challenges in achieving efficient scale under increasing returns to scale, but is this the case when we take market intervention into account. The argument needs further study as we cannot assume an automatic link between size and wealth of a market and its relative market concentration.

I will show that not only small markets are subject to few player conditions, e.g. under conditions of oligopolyⁱ, but also larger markets. Indeed, the economic characteristic of the market and media content goods should create drives towards high market concentration for TV markets in general. By applying economic logic it would be correct to assume that small markets have fewer players based on scarcity considerations, however, this does not take into consideration market intervention practices. The EC focus on the FTA model dependent on advertising does not take into account total market volume and thus that there does not have to be a linear link between advertising funding and market concentration, as there can be differences in revenue-type dependencies in the market ecologies. Furthermore, as a consequence of market interventionⁱⁱ, the link we should assume based on theory between the total market volume and the level of market concentration might not be the case, as a consequence of government intervention being an intervening variable. While the assumed link between size and advertising revenue can be argued and shown statistically (see for instance my forthcoming doctoral thesis). This cannot be applied directly to assumptions of strong market concentration. At the same time, it underline the impact of political intervention in the markets as this remain dependent on the regulatory measures taken in the local markets to secure competition on the one hand, while securing cultural and industrial concerns such as original domestic works of creativity on the other.

I argue that the difference in scale of political market intervention practices result in conditions that circumvent traditional economic logic by balancing potential commercial conduct. The argument in literature on why market concentration should be higher in small markets is based on scarcity of revenue, however, as governments intervene using both regulatory measures as well as PSBs the rules of the game in the market change, usually to the benefit of local players. Scarcity considerations continue as intervention practices also follow the scarcity principle as public revenue is limited; meaning that the public funding used for PSBs amount to 7,3 bn. € in Germany, 5 bn. € in Japan and 4,2 bn. € in the UK; which is in contrast to the Canadian PSB which get 643 mn. €, the Spanish 544 mn. € and the Danish 469 mn. € (Screen Digest, 2010). All this is dependent on of political choice. The public funding alters the market and in effect the PSBs will function as balances to the commercial players both local and global. This in combination with audience preference of domestic content (see EurodataTV, 2009) position the local public and private players as the main players in their individual markets (as argued by Tunstall 2008, albeit a bit differently), as the incentive to invest in domestic production is higher than for the international channels. My point is that market concentration ratios in small and large markets do not have to be different as it becomes dependent on the magnitude of political intervention in the individual market settings, and not alone on commercial revenue scarcity. And while the MNCs has increased in volume it is related to the increase in pay-television and digitalization, meaning that as they primarily utilize economies of scale, the level of domestic content on these international channels is fairly limited, often preferable culturally neutral. What I will show is the TV market concentration level, the position PSBs and the share of MNCs within the 6 largest players. This will establish an indication of local vs. global players, as well as the primary market structure in TV markets.

This analysis will show that the media markets are one of the instances where it can be argued that neither the market nor politics exists independently. It should to be studied jointly, as politics can affect the market; and where the market can compel political action. None of these forces exists in a void, for a similar perspective see the literature on Public Choice (Mueller, 2003), political economy (Mosco, 1996; Evens, Rueschemayer & Skocpol, 1985) or positive economics (Friedman, 1962). In Europe this has led to dilemmas in the question of securing competition and regulation as well as cultural versus commercial concerns in broadcasting. This is substantiated as Western Europe alone subsidized the PSBs with more than 20 bn. euro in 2007, making it the third largest publicly aided industry only surpassed by the transportation and agricultural sectors (Screen Digest, 2007). Consequently, the traditional supply and demand in the market is offset as a result as domestic content from PSBs change available market supply and potentially audience demand.

This is in line with Graham & Davies (1997) where they argue that left alone broadcasting would end heavily concentrated as a consequence of the market. Their argument is that the PSBs are advantageous as they are able to promote specific roles in a media system, which would not be viable for commercial players on the one hand and difficult to regulate on the other. The argument is based on counterweight to monopolization, widening of audience choice and influencing the quality and behavior on the system as a whole. I will substantiate this argument here as a consequence of market failures in the broadcasting market, which PSBs can help remedy. The hypothesis promoted here is that TV markets in general are under conditions of oligopoly with relatively few players, but also that even though we should expect small markets to be more concentrated than large market as a consequence of difference in critical mass; this is not the case in TV markets. The reason is the effect of market intervention by using PSBs to alter the rules of the game, as the intervention can function as a balance to the commercial companies in the market. The consequence of these interventions in best cases are PSBs as standard setters by imposing a specific level of services and quality which the competitors have to equal, otherwise the consumer have the choice of a PSB provisioned service. It would follow that market concentration is influenced by an intervening variable in the form of government intervention.

Market concentration

Market concentration measurement is a useful tool to indicate the competition in the market of television. But it also indicates the importance of political intervention. Along that same line of argumentation, it can also identify differences in markets structures and company ownership. While I mainly focus on the European markets, studying the legislation and regulation on horizontal merger guidelines of the EU (2004) and the US (1992, revised 1997)ⁱⁱⁱ, will be applied to establish some tools and methods on how and why to study market concentration. The concentration on a market is a function of the number of firms and their respective share of a market (Albarran, 1996), television viewing in this case. In other words it is a tool used to show the relative market competition (Tirole, 1988).

The hypothesis that the Television markets in general are highly concentrated and under conditions of oligopoly is based on assumptions of imperfect competition based on market and content good characteristics. Theory of oligopoly, being relevant for TV markets, is embedded in literature, but little research has been made to indicate the overall market concentration ratios comparatively. A main challenge lies in method of measurement where Hannah and Kay (1977) has argued on behalf of one-parameter concentration indices, containing both the CR, HHI and entry measurements. Both CR and HHI are commonly used; see for instance Whinston (2006) for application in horizontal mergers as well as Porter & Zona (1993, 1999) for studying collusion in relation to respectively state highway construction and contracts of school milk. Although application of competitive behavior is more than market concentration measured horizontally - it does provide a picture of the market competition in the individual markets indicating the market structure and thus useful for further research. Although there have been cases such as the electricity market where it has proved an inadequate measure as indicated empirically by Borenstein, Bushnell and Knittel et al (1999). The intention is to establish an initial perspective on comparative TV market concentration, in order to document this empirically.

Market concentration has been discussed in media literature for a long time, overall we can distinguish between two strands; one with a critical perspective that argues the global MNC's have arisen and that this carries potential difficulties caused by the current ownership and market concentration patterns. My aim is not to enter these discussions, but for more in-depth information see C. Edwin Baker (2007), especially the chapter Not a Real Problem: Many Owners, Many sources (p.54ff). The first strand of literature consists of corporate ownership consideration as well as critical approaches to media ownership developments. For large media corporate ownership read for instance Bagdikian (1983, 2004), Herman & McChesney (1997) and McChesney (1999, 2004). For a critical perspective on the development of media ownership patterns authors as Hesmondhalgh (2002) and Baker (2007) provide perspectives. The second strand of literature questions if the development is as problematic as argued by the critical perspectives see for instance authors as Compaine (2000, 2005) and Gomery (2000) or rather arguing that this perception might be a myth, see for instance Hafez (2007). This discussion is ongoing, and for instance Baker (2007) argued against the perspective of Gomaine (2000, 2005), that there actually is a more spread ownership than argued by the critical perspective proponents. As put by Baker (2007: 55): "*Compaine basically claims that concentration is not a policy problem requiring fixing.[and that] ...Objectionable concentration does not exist, especially as properly evaluated in respect to the media as a whole*". Baker (2007) does not agree with the conclusions of Compaine, nor Gomery and instead argues against the claims "*...that there is no real empirical evidence of problems of concentration to which restrictive ownership rules need respond. Or, at least, there is no problem not adequately handled by general antitrust laws*". However, they do agree on the perspective that the media is not as just another industry like toasters or sofas. Instead we have to take into account the potential threat of high concentration levels in these industries and the latent adverse effects this could have for available information. I will mainly point at the challenge of lacking comparisons to more than a few markets, which makes it difficult empirically to perceive the scale of market concentration across markets, as well as the actual share of MNCs in these markets.

Applying the market share of television viewing is equal to establish consumer consumption of the television commodity; it is thus useful to establish the current level of concentration in an environment characterized by fragmentation of audience and is a first step in research before establishing the diachronic change in market concentration in Europe. Conducting such a study is considered further research, but this analysis is a first synchronic step, which can help establish the variation between small and large markets level of concentration. The degree of market concentration is usually evaluated based on number of companies (one, few, and many) and their relative size. A market is considered concentrated if dominated by a limited number for firms. In short; the fewer producers, the more market power can the individual firms utilize due to their market position. There are several different ways to measure market concentration; two of the more applied are Concentration Ratio (CR) and Herfindahl-Hirschman-index (HHI) (Albarran, 1996; Hoskins, 2004; Wirth & Bloch, 1995; Tirole 1989).

Table 1: Market concentration measurements

Hirschman Herfindahl Index	Concentration Ratio
<p>HHI is calculated the following way $HHI = \sum_{i=1}^N s_i^2$ where s_i^2 represent the squared market share of the media company. The N represents the total number of companies on the market. The application of squared market shares means that the largest companies are attributed a higher importance for the concentration than the smaller companies. This is also why the lack of smaller companies is not important, the main concern is to recall that the <i>rest</i> share must not be represented as a single company as this might skew the resulting level of the index, i.e. having a 10 % market share left can have an impact if the company represented is a single entity, but if it is 10 single 1 % companies, or even 20 ½ % share companies, the impact would be minimal. This is also the reason why we can apply the HHI using the six largest companies' market shares. In short, the equation ensure that the larger companies marketshare is attributed a larger weight; which is don't considering the relatively higher importance for the competition process (Tirole, 1989)</p>	<p>CR is a simple but effective way of showing the relative concentration within the market (Bain 1953; Tirole, 1989) and has been applied broadly in literature as determinants for market structure. Concentration ratio is calculated the following way $CR(n) = \sum_{i=1}^n s_i$ where the s_i represents the i'th company market share, n is the included number of companies used to measure the concentration ratio.</p> <p>I will apply the CR(1-6) figures to establish the degree of change between the CR(n's), meaning that if you have a CR(4) of 83,4 like in Denmark, is becomes easy to neglect that the first two companies represent 68,9 of these, and also that this place severe limits on how large the 5'th included company can be. Applying the variation between the i'th companies can indicate the market structure in terms of major companies.</p>

I will primarily focus on the European markets, but will include Northern America, Australasia and Japan. The analysis as well as the market concentration and ownership analysis is based on quantitative data from 33-market sample^{iv}. The main source applied for the market concentration statistics was 2008

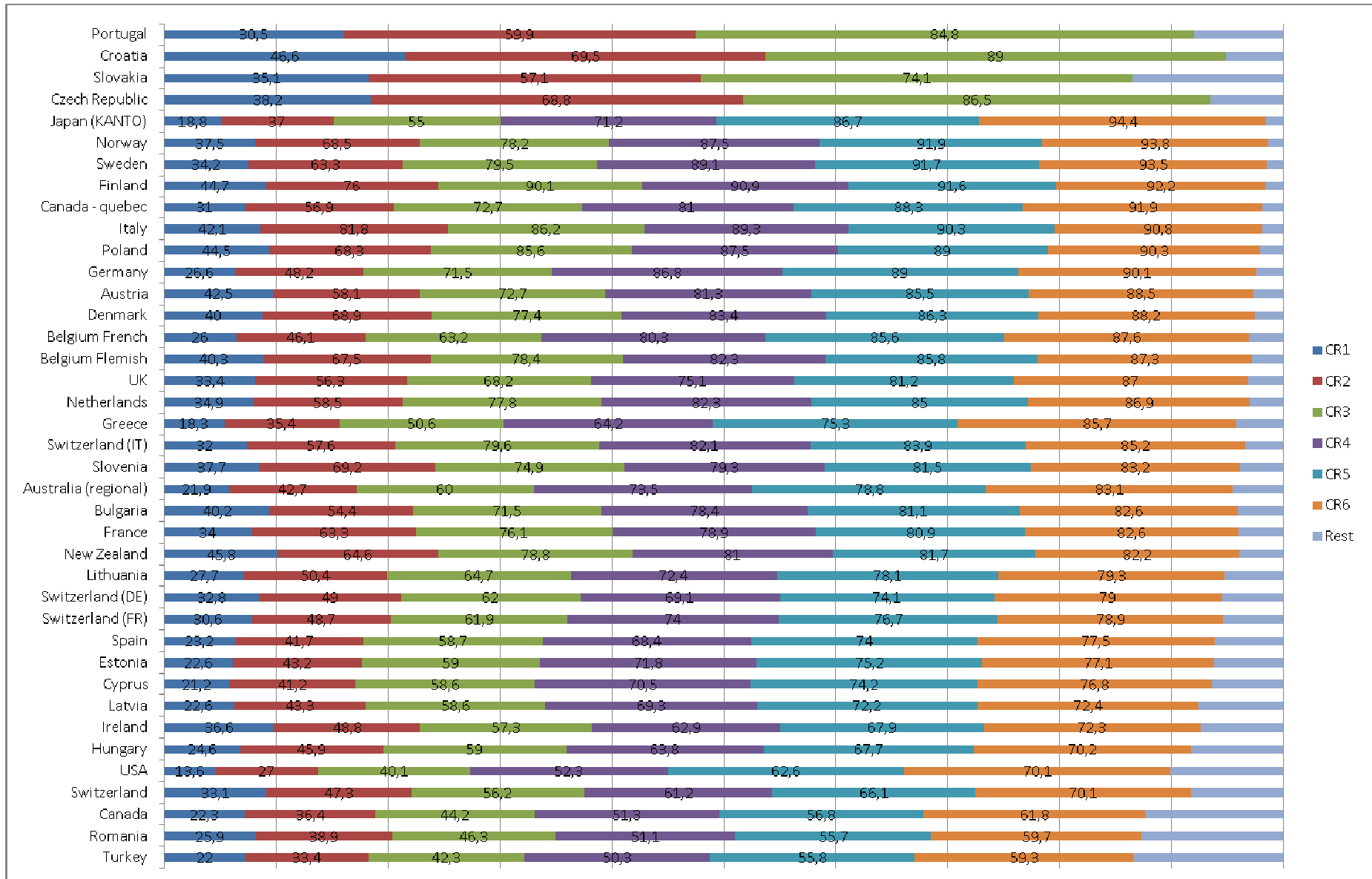
audience data from EURODATA TV. The data was then treated by applying the primary ownership principle available from the EAO MAVISE database, Television Business International, annual financial reports, regulatory authorities and the Amadeus database^v.

First I will establish market concentration ratios using a concentration ratio index (CR_x) in order to investigate the market concentration ratio in the included markets, which will help establish the concentration ratios in the one hand and the to show to which degree local players remain dominant in the domestic TV market ecologies. This is followed by the HHI calculations, where the relative market competition in the individual markets is measured. This will also help establish an overall market concentration scale, as well as showing the interdependency between politics and market. Secondly, I will investigate the correlation between the size variables and the HHI concentration level to document that the intervening variable understood as government intervention remains strong in the competition between market and politics. Thirdly, I will show the Trans-national ownership share in the included markets to indicate their impact measured by share, which indicate what competition the domestic players face. Combined this will enable a more broad perspective on at least the TV market concentration level anno 2008, and while this is a synchronic analysis, it will establish a first step before establishing a diachronic analysis on the development of TV concentration.

Market concentration measured by CR

The table depicts the calculated concentration ratio based on the primary owner principle of the broadcasters. The table depicts CR1-6, except for four markets where just the CR1-3 could be calculated. There are for Portugal, Croatia, Slovakia and the Czech Republic where it was mainly possible to identify the three largest media companies and the rest were unavailable, however leaving them out when they all reach above 70 pct. on the CR3 ratio would not be reasonable as they all represent markets with high concentration levels. I will not place these markets in the description below, but keep in mind that they are more concentrated than in general. The CR ratio scores across the markets indicate some interesting both similarities and differences. The reason for using all-day consumption is that this measure represents the general level of competition. The purpose is to study differences in market concentration to indicate the importance of market intervention for the market concentration levels, as well as establish indications for type of market structure.

Table 2: CR1-6 index based on all-day consumption 2008^{vi}



Source: Own depiction and calculations based on the primary owner principle. Source data is Euro Data TV and the national audience measurement agencies aggregated based on MAVISE and Amadeus databases on primary ownership in combination with annual reports.

The table shows quite diverse picture of the market structures in the individual market, but it also indicate a trend of high concentration levels, which is emphasized by the CR4 ratios based on Albaran & Mierzejewska (2004): “ a simple way to measure concentration is to use the four largest companies, i.e... If the four-firm ratio is equal to or greater than 50 percent ... then the market is said to be highly concentrated”. Measuring this, using the consumption figures, establishes that all included markets have: CR4≥50% = highly concentrated markets and that none are below 50% ratios. Applying as a rule of thumb that CR4≥80% establish challenges for competition, this is the case for 13 local markets (counting Belgium once) and two regional markets: Austria, Belgium Flemish, Belgium French, Canada – Quebec, Croatia, Czech Republic, Denmark, Finland Germany, Italy, Netherlands, Norway, Poland, Portugal, Sweden and Switzerland – IT. While this method is not perfect it does establish a trend indicating high levels of concentration, but the table also indicate very diverse market structures in the included sample. We will look into this below where the figures are recalculated into HHI. But first we will look into the relative position of the PSBs in the sample.

The markets with the highest ratio based on the six largest companies can be distinguished between those above 60-69%, 70-79%, 80-89% and 90+% ratios. There are 8 markets with CR6 equal to or above 90% concentration level, are Japan (Kanto Region) with 94,4%, followed by 93,8% in Norway, 93,5% in Sweden, 92,2% in Finland, 91,9% in the Canadian region of Quebec, 90,8% in Italy, 90,3% in Poland and lastly 90,1% in Germany. There are 10 markets (counting Flemish and French Belgium separately, but not counting the Italian speaking part of Switzerland) with ratios equal to or above 80%. Austria with 88,5%, Denmark with 88,2%, Belgium French with 87,6% and Flemish with 87,3%, UK with 87%, Netherlands with 86,9%, Greece with 85,7%, Switzerland IT with 85,2%, Slovenia with 83,2%, Australia (regional) with 83,1%, Bulgaria with 82,6% as well as New Zealand with 82,2%. Nine markets have 70% ratio (not counting the German or French speaking parts separately) where Lithuania with 79,3% , Switzerland DE with 79% and FR with 78,9%, Spain with 77,5%, Estonia with 77,1%, Cyprus with 76,8%, Latvia with 72,4%, Ireland with 72,3%, Hungary with 70,2%, USA with 70,1% and Switzerland total with 70,1%. Canada, Romania and Turkey are the only markets with less than 70% respectively having CR6 ratios of 61,8%, 59,7% and 59,3%, but CR4 above 50%. Studying these figures establish a first synchronic perspective on the TV market concentration levels pointing out that we have mainly highly concentrated markets showing oligopoly tendencies. The CR6 index shows us that from an overall perspective we can substantiate the high concentration claim for the TV markets, but also that there is a set of markets viable for further research on market competition. The ratios also indicate that the market is usually dominated by roughly 6 companies or less.

The differences between the included markets are highly dependent on the scale of government intervention as based on the relative PSB market strength. We will use the PSB position in CR1-6 to represent an example of how PSBs function as balances against commercial companies.

Table 3: PSB positions in the concentration ratio^{vii}

	First PSB	Second PSB
Position 1	Switzerland (Total, FR, DE & IT), Ireland, Cyprus, Spain, New Zealand, France, Netherlands, UK, Belgium Flemish, Denmark, Austria, Germany, Poland, Italy, Finland, Sweden, Norway, Japan (kanto), Croatia,	
Position 2	Bulgaria, Slovenia, Greece, Belgium French, Czech Republic, Slovakia, Portugal	Denmark
Position 3	Romania, Hungary, Latvia, Estonia, Lithuania, Canada-Quebec	
Position 4	Canada, Australia (regional),	Germany
Position 5		
Position 6		Spain, New Zealand, France, Australia (regional), Netherlands, Canada-Quebec,
Not within CR6	USA, Turkey	

Source: Own depiction

The table shows the position of the domestic public media companies in the individual markets, as some markets have two PSBs such as for instance Denmark where they represent position 1 and 2. In a majority of markets 19 (not counting the regional Swiss, but counting Flemish Belgium) the PSBs are either market leading; in 7 markets they are secondary; in 5 markets (not counting Canada –Quebec) they are third; in 2 they are fourth and in 2 they are not within CR6 (i.e. in the USA they PBS have 1,4% of share and in Turkey 3,2%). While there are differences in the relative strength in these, there are also markets with two PSBs in CR1-6. PSBs can function as balancing the commercial companies, i.e. taking their relative market position into consideration. The most competitive market are those with the weakest PSBs, as such we can point at that the government interventions does work in the sense of securing that audience view domestic broadcasters, which in so far they defined as PSBs would have content in service of the public interest. While differences could also be related to the choice between state or commercial models towards the media, all included markets have relatively heavy regulatory regimes on TV – even if the deregulatory trend since the 80’s and 90’s have removed some restrictions.

My research aim is not to evaluate whether strong PSBs is beneficial or not, but conclusively these companies are surprisingly popular, even in a situation where fragmentation of audience is a trend. What is important to remember is that the PSBs represent a direct state intervention in the market with the purpose of securing public interest. Looking at the difference in programming output in the Nordic market, we see a significant difference between the output of the main public and private companies (See Lund & Berg, 2009). The balance argument holds interest at public media companies as they have

to secure some degree of legitimacy based on content and services provisioned, but at the same time they have to compete against their commercial counterparts.

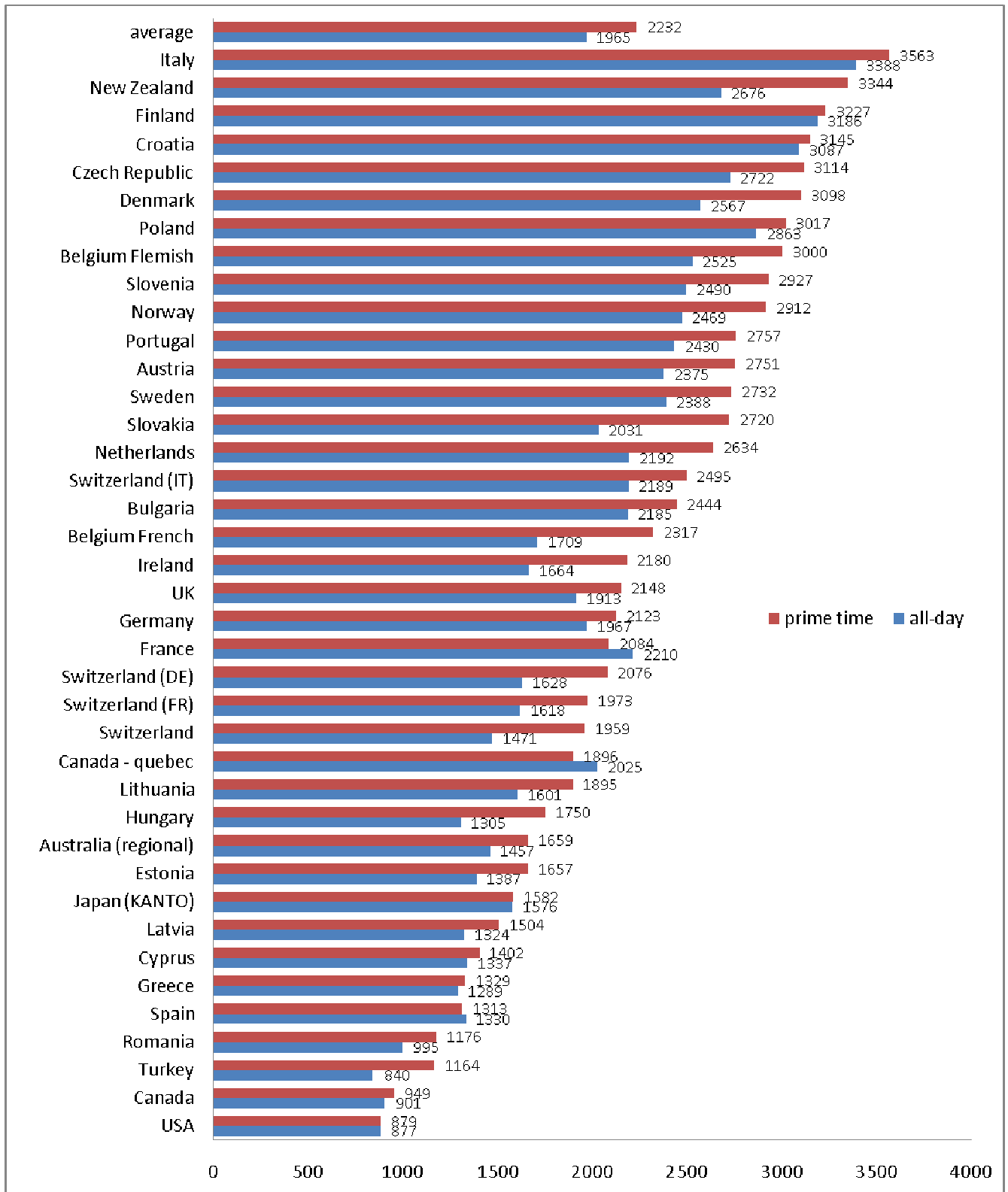
Below we will investigate the market concentration levels measured by HHI for both all-day and prime-time viewing. This will establish the relative market concentration levels in the individual markets while taking into consideration the difference in company strength using the HHI measurement.

Market concentration measured by HHI

The application of the CRx measurement did show that the markets included could be considered highly concentrated based on the CR4 figures, but we also identified high levels of difference in the included markets. As such I will establish an HHI which gives greater weight to the share of the larger companies; this also means that even though we lack some small companies, this has little impact on the HHI (EU, 2004). The remaining share is diverted into single share companies to establish the HHI as correctly as possible HHI (Tirole, 1989). The figures will be presented in table format below including both all-day and prime-time viewing to establish the level of difference.

The measurement will be applied to establish an initial level of market concentration based on the HHI level set by the U.S. Department of Justice and the Federal Trade Commission (1992, revised 1997) in their Horizontal Merger Guidelines (here after US guidelines) for concentration market shares in section 1.5, which are the following: *“The Agency divides the spectrum of market concentration as measured by the HHI into three regions that can be broadly characterized as unconcentrated (HHI below 1000), moderately concentrated (HHI between 1000 and 1800), and highly concentrated (HHI above 1800)...”*. Applying this framework will help establish the concentration level based on another method of measurement.

Table 4: Market Concentration measured by HHI ordered by prime time 2008



Source: Calculations based on the primary owner principle from MAVISE DB, AMADEUS, Financial reports and company sites. Source data is Euro Data TV.

The HHI indicate significant differences between the all-day and prime-time HHI figures where the averages are 1965 for all-day and 2232^{viii} for prime-time. Both indicate of highly concentrated markets. This picture was what could be expected as the audience views most television in the evening, which increase the incentive for broadcasters in general, and commercial broadcasters in particular to roll out their most audience-attracting programming to secure audience and thus revenue^{ix}.

The large Italian market is the most concentrated in the involved sample with an HHI of 3388 in all-day and 3563 in prime-time consumption; this is heavily reliant on the duopoly relation between the public broadcaster RAI and Mediaset S.P.A. This is closely followed by the small market in Finland for all-day consumption with an HHI of 3186 and 3227 in prime prime, where there is a similar pattern with the public broadcaster YLE and the Bonnier owned MTV Media, the main difference lies in the strength of the third competitor where Nelonen Media is stronger than Sky (Newscorp) in Italy [measured by market consumption]. New Zealand surpass the concentration of Finland in prime-time with an HHI of 3344, but with a decrease in all-day to 2676. The degree of market concentration appears to have a significant relation to the scale and scope of government intervention in the markets. The high Italian and Polish market concentration is to some degree attributable to the positions of RAI and TVP, the same being the case in New Zealand, Denmark as well as several other markets. The established duopolistic and oligopolistic market competition actively limits entry by applying niche-channel strategies to deter entry.

Turkey is the least all-day concentrated with HHI of 840 in all-day, increased to 1164 in prime-time. USA is the least concentrated overall with all-day of 877 and prime-time with 879, Canada follows this pattern closely with 901 in all-day and 949 in prime-time. Romania is the fourth least concentrated market in the sample, but they are not that far from the Greek, Latvian and Hungarian markets. This establish an indication of market similarity, where we can claim that both small and large markets can be more or less competitive, depending on the market barriers of entry and exit combined with the regulatory conditions and PSBs on the markets. What remains are that both the most and least concentrated market is, large markets, this indicates something about the influence of market intervention. The above mentioned markets are borderline cases ranging at the 1000 level going either way. These markets also happen to be large, and it could be an indication especially in terms of the US that having a very large market volume can secure competition, as well as for the Canadian part where ownership regulation in combination with a large market also secure competition, especially with a highly competitive same [primary] language US market as a direct neighbor.

The effect of language or perhaps identification is also intriguing, when we look into the three regional markets in Switzerland as well as the ones in French Belgium and the Canadian region of Quebec. The first influence of neighboring markets, we can identify in Switzerland and the French speaking part of Belgium. In these markets we see that they are quite similar to their same-language large neighbor

markets, with the main difference being the market strength of the Swiss public broadcaster. Studying the Italian speaking region of Switzerland we identify a more concentrated television viewing, than in the other two regions, this is a reflection of the Italian market, as the Swiss public broadcasters in combination with the duopoly companies from the Italian market RETI Televisive (Media Set) and RAI form an oligopoly structure. In the two other regional markets a slight different picture emerges, the Swiss pub-caster is the largest, but in the French speaking region, TF1, France Televisions and RTL group (both Metropole Television & CLT-UFA). In the German speaking part, the main actors beside SRG-SSR are RTL & Pro7.Sat.1 in combination with the German and Austrian public broadcasters. In this way the Swiss market structure is influence by the structure in their same-language neighbors, while this creates more diversity is also have limitations. In a way they are *preset* a particular market structure, where SRG-SSR is the main difference. In French Belgium we see similar conditions with CLT-UFA (RTL) and TF1 as well as France Televisions. In practice we see similar conditions in Ireland and Austria, but not to the same degree. An interesting indication lies in Quebec where, the level of concentration is different from the aggregated Canadian figure with a difference above 1000 in HHI, this can be argued on strong linguistic terms, but also that they are French-speaking. The competitive pressure from the US, part of this is of course the Groupe TVA – Quebecor Media, but identification of own cultural identification appear to have a role. This also means that what we identify is a difference between the regional and aggregated shares in both Canada and Switzerland, which we can use to indicate that language, can be applied effectively as a protection mechanism and vice versa can constitute a particular risk. Both conditions carry advantages as well as disadvantages.

Middle markets like Belgium, Ireland, UK, Germany, France and Switzerland can also be defined as highly concentrated in prime-time. Interestingly the large markets of UK, Germany and France are also highly concentrated in all-day viewing, while the others are moderately concentrated in these instances. Common from these large markets is heavy governmental intervention in the media using reasonable funded PSB in combination with strong commercial broadcasters.

The market difference when using HHI in contrast to the CR analysis show the differences related to relative company strength. The table below illustrates in more detail that based on the sample the television markets in general range from moderately to highly concentrated, where only few can be defined as unconcentrated. The unconcentrated markets are all around the borderline towards moderate concentration. This remains around the line of theory stating that television markets would be concentrated, but it does question if small markets should be more concentrated than large markets. But it also shows that the markets where the PSBs have the weakest market position are the ones with the least concentrated markets measured by HHI.

Table 5: Difference between all-day and prime-time

	Unconcentrated	Moderately concentrated	Highly concentrated
All-day	Canada, USA, Romania, Turkey	Hungary, Latvia, Estonia, Spain, Cyprus, Australia (regional), Japan (KANTO), Belgium French, Switzerland (and the French and German speaking regions), Ireland, Lithuania	Greece, New Zealand, France, Bulgaria, Slovenia, Netherlands, UK, Belgium Flemish, Denmark, Austria, Germany, Poland, Italy, Canada – quebec, Finland, Sweden, Norway
Prime time	Canada, USA	Romania, Turkey, Hungary, Latvia, Estonia, Spain, Cyprus, Australia (regional), Japan (Kanto), Greece	Belgium French, Switzerland (and the three regional markets), Ireland, Lithuania, New Zealand, France, Bulgaria, Slovenia, Netherlands, UK, Belgium Flemish, Denmark, Austria, Germany, Poland, Italy, Canada – quebec, Finland, Sweden, Norway

Source: Own depiction

The table shows that for all-day consumption 16 markets (not counting Canadian region of Quebec) can be considered highly concentrated, while 11 markets (not counting the individual Swiss regions) are moderately concentrated and four markets can be considered unconcentrated, albeit at the margin of moderate concentration. In prime time consumption this changes to 19 highly concentrated markets (not counting Quebec), 10 moderately concentrated markets and two unconcentrated.

The data substantiate the argument that the TV market carries an inherent drive towards concentration. But they also show a great deal of variation between both small and large markets. This indicate that we cannot per definition expect size (population, economy and market volume) automatically to have a significance on the market concentration, as the market intervention practice offset or balance commercial market logic. We can argue, that the characteristics of market and media content goods are similar in small and large markets, and what influence market concentration is a combination of factors, where market intervention in the form of a public broadcaster and other regulatory conditions impact by changing the rules of the game.

The border cases Turkey, Canada, US and Romania ranging between unconcentrated and moderately concentrated markets have some characteristics in common. They have relatively limited public broadcasting intervention strength and they represent markets with high audience fragmentation levels. The relative strength of the market intervention caused by public broadcasters also shows that we cannot isolate the actual effect of size in this. The argument, that small markets have less critical mass, and thus should be more concentrated rings true, but government intervention through PSB using public revenue means that we cannot know this. The main point being that interventions in the market ensure that the critical mass is surpassed in terms of what the market could yield on commercial terms and thus change that condition – this is one of the situations where the characteristics of market and content goods are leveraged by direct intervention.

The data support the hypothesis of concentrated TV media markets, but also that there are major differences between the included markets. We also see that PSBs influence the concentration level highly as a consequence of the market positions. As a rule of thumb the TV markets are oligopolies for all included European markets, where the main question is what type of oligopoly we are dealing with, i.e. is it a duopoly with a weak third, are there 4-5 companies of almost the same size as in Japan (Kanto). Different market constellations can result in differences in terms of services provisioned and content quality. It is beyond the scope of this paper to investigate actual effects of different oligopoly market structures. The PSBs appear to hold a significant position in several of the markets. There are reasons to be concerned in some markets based on their market constellation for television, while the MNC challenge appears most viable for the eastern European markets.

The TV markets are fairly concentrated. Part of this is related to the relative strength of the PSBs and their position in the markets. Moderate and strong PSBs (usually) with state funding and privileges function as market correctors, that can change the rules of the game in the market. PSBs distort market competition per definition. However correcting market failure, understood as per the established merit good definition of the state, is the purpose of their existence. In effect PSB can function as quality standard setters for content in general, as well as news and information in particular. This can also help the AV-industry in the individual markets as the public company have to train media professionals and fund television content, not otherwise funded to the same degree.

Below we will investigate the relationship between three variables of size on the level of market concentration measured by HHI.

The Myth of Market Concentration and Size

We have established that the TV markets range from moderate to high concentration levels in most domestic markets. Furthermore we have sought to present the relative position of the PSBs in this measurement, and the level of government intervention appears to have an effect on the level of market concentration.

I will establish that market concentration measured by HHI is not statistically correlated with the size variables of population, economy and market volume as one could suspect based on the economic conditions. But also, that this is a consequence of an intervening variable government intervention. This is counter-intuitive, and in literature, as for instance argued by Gillian Doyle (2002:16) it is stated that: *“But in general, the smaller scale of resources available for media provision in small peripheral markets makes them prone to concentrations of ownership which, in larger markets, would be deemed unacceptable”*. The EC (2007) establish a similar connection between market concentration and market volume: *In smaller markets it is economically impossible for the advertising spend to sustain more than a few broadcasters*. Below we test if there are differences between small and large markets, as well attempt to identify whether this is dependent on market intervention practices including the PSB.

What I argue is that the market concentration level in effect as theoretically defined is a function of the number of companies and the relative strength in combination with political intervention. What I will show is that in effect regulatory measures and PSBs set the rules of the game for commercial broadcasters. This means that large markets can be as concentrated as small markets as a result of government intervention. The intention is to show that size alone does not influence the TV market concentration levels, but rather this is a function of a combination of factors including regulatory measures taken by the State, and especially the PSBs. While we will show that overall most TV market are concentrated either moderately or highly. I will apply a market failure approach, as what I argue is that the interventions in the market by PSBs carry beneficial effects as it would balance and thus limit commercial-only influence in the market. This is related to the relation between business and politics in a regulatory approach to the TV media markets, where these considerations are inter-tangled as a consequence of fear of misuse and interest in pluralism.

First I will use a simple regression analysis of the size variables on the level of market concentration. The purpose is to examine if the hypothesized relationship between the size variables is related to level of market concentration using: (a) size of economy measured by GDP in mn. € denoted ECO; (b) size of population in millions denoted POP; size of (c) TV advertisement measured by mn. € denoted TV ads as well the size of (d) TV market volume measured by a proxy using the aggregated figure of public, subscription and advertisement revenue in mn. € denoted TV MV. Market concentration is measured by the HHI using both all-day and primetime consumption, the variables are denoted respectively HHI all and HHI prime. This will establish if we statistically based on the sample can identify a relationship

between the dependent variable market concentration on the independent size variables population, economy, TV advertisement and total TV market volume variables. The intention is to investigate the relationship in order to establish to which degree there is a linear relationship between the size variables and the level of market concentration.

Table 6: The influence of size on market concentration measured by HHI

Market concentration	POP		ECO		TV MV		TV ads	
	HHI (all)	HHI (prime)	HHI (all)	HHI (prime)	HHI (all)	HHI (prime)	HHI (all)	HHI (prime)
Coefficient (OLS)	-,006	-,010	-60,289	-173,042	-,010	-,025	-,019	-,052
SE	,008	,007	207,524	192,202	,023	,025	,051	,054
t-statistic	-,803	-1,425	-,291	-,900	-,433	-1,024	-,377	-,974
Obs.	33	33	33	33	33	33	33	33
Adj. R ²	-,011	,031	-,029	-,006	-,026	,002	-,028	-,002
R ²	,020	,061	,003	,025	,006	,033	,005	,030
F statistic	,645	2,030	,084	,811	,187	1,048	,142	,948
Prob > F	.428	.164	.773	.375	.668	.314	.709	.338
Durbin-Watson	2,267	2,315	1,970	1,985	1,389	1,477	1,391	1,493

*** (**) [*] denote significance at $p < 0.01$, ($p < 0.05$), [$p < 0.1$] / [note that the US data are not included in the regression as a consequence of an outlier function and the Belgium total is applied].

For the population variable the regression analysis results are non-significant on HHI (all) with adj. $r(32) = -.011$, $p = .428$ as well as for HHI (prime) with adj. $r(32) = .031$, $p = .164$. The same non-significant results is the case for the Economy variable on HHI (all) adj. $r(32) = -.029$, $p = .773$ as well as for HHI (prime) with adj. $r(32) = -.006$, $p = .375$. For the total TV advertisement the results on HHI (all) with adj. $r(32) = -.028$, $p = .709$ as well as for HHI (prime) with adj. $r(32) = -.002$, $p = .338$. For the Total TV market (TV MV) the result is roughly the same for HHI (all), with adj. $r(32) = -.026$, $p = .668$ as well as for HHI (prime) with adj. $r(32) = .002$, $p = .314$.

The regression on the four size variables all resulted in non-significant results related to HHI on both all-day and prime-time consumption concentration levels. We suspect that the small markets were more concentrated than the large, but the HHI figures indicate this is not always the case as a consequence of market intervention practices. The border cases in Turkey, Romania, Canada and the US substantiate this interpretation, as these markets remain fairly unconcentrated in combination with having relatively weak PSBs. If we approach this based on economic logic small markets in principle should be more concentrated than large markets as a consequence of the media market and content good characteristics of non-rivalry with increasing returns to scale with cost of consumption being independent of cost of production. What we identify here is, that this is not directly the case, as it

appears more as consequence of market intervention practices in the individual markets as seen above in the market concentration sections.

Furthermore, we did not identify a significant correlation between the independent variable advertising revenue and the dependent variable market concentration, nor was there significant for the total market volume proxy. This is as we hypothesized would be the case, as market and politics cannot be separated when it comes to the media. The influence of government intervention based on imperfect competitive competition or merit good considerations influence the market and thus change the rules of the game.

This is an interesting finding, while we could anticipate this to be the case as a consequence of PSB existence, this substantiate some of the considerations on the influence of political intervention in the markets as circumventing the number of players there otherwise could be on the market as such this underline that PSBs help set the rules of the game. The reasoning behind this is that the (usual) dual funding structure of the PSBs where the public funding increase the market volume and as such does not destroy the potential for commercial actors on the market, even if they do carry advertisement. An exception for this can be for small same-language markets with regional extension where the large market broadcasters could divert advertisement revenue from the market, thus limiting the number of domestic companies' ability to reach efficient scale. In this sense the public broadcasters help secure a minimum level of competition on the markets on the one hand, while they also as a consequence of their remit are obliged to invest and produce original domestic programming.

The current condition for the TV industry is moderately to high levels of concentration for most markets in either duopolies or oligopolies; the more concentrated the more potential for profit. But several markets are as a consequence of their platform competition and digitization in a process of securing more channels. What this study indicates is that the strategic behavior from company perspective is to deter entry or aggressively fight entry by establishing niche-channels for segmented audiences to secure profitability. This technological development happens in conjunction with a process where the pay-penetration increases the potential of the new channels to be funded by subscription revenue and thereby limiting the commercial companies' dependency on advertisement revenue. The public broadcaster in this game plays the actual role of balance by setting a level of quality for the individual commercial broadcasters to compete against if they want to secure audience.

We have showed that based on the definitions of size we have not been able to identify a significant relationship between size and market concentration levels, which I argue is a consequence of market intervention based on state merited interests. We find indication of oligopoly market structures for the

European markets, but with high levels of variation for the individual markets in terms of specific type of oligopoly. My argument is that this is a consequence of varying levels of market intervention, which remains somewhat independent of size variables, but to some degree dependent on political intervention and especially the role of PSBs in the individual markets.

Below we will investigate the transnational ownership by studying the ownership of the largest companies in each of the sample markets.

Transnational ownership considerations

There are dwarfs and giants in the TV markets. While the audience trend moves towards increased fragmentation, the ownership of these outlets has been argued becoming increasingly concentrated. Above we have presented the market concentration levels in the individual markets and here the intention is to show the ownership across markets using these figures.

If we accept Multinational corporations as companies owning multiple stations and outlets internationally we should be able to measure the relative share levels in the individual markets based on primary ownership. Usually we can distinguish between public media, private commercial media, hybrids as well as other private/non-profit media. Public media are usually argued acting on behalf of the public interest (at least in most of the included markets) with some difference in the scale and scope of government influence. All types of ownership can be accused of having a bias of one type of another, the public towards government policies, the private towards their commercial interests, and the non-profit private media towards their particular cause. The benefit of a combination of public and private media is that they effectively have to compete for audience which can yield benefits towards the content quality insofar the competition is advantageous, should it be disadvantageous the quality can risk being worse as a consequence of cost-saving or profit-optimization due to ruinous competition. As indicated by Park (2005) high levels of competition may result in reduced levels of diversity and shown likewise by Richard van der Wurff and Jan Van Cuilenburg (2001) in their study of the Dutch market that competition can lead to ruinous competition with high-levels of low-quality programming.

The question of interest is whether the MNCs (a) are actually global and (b) if they are marginal factors or (c) if they have the potential to have a significant impact in terms of share of consumption by their supplied services. Below we will show the trans-market share of the primary media companies in the individual market which are present in the CR1-6 in two or more markets. The domestic public media have been retained in the table, but names of the foreign PSB cross-viewing have been removed^x. The way we have plotted the share figures of the largest companies with similar primary ownership in the

table, keep in mind that only those companies being in top6 in combination with having a presence in two or more markets are present.

The table is a proxy for trans-national ownership in the included markets based on the primary ownership principle and derived from the six largest media companies in the individual markets. As the included companies are the largest in the individual markets, it means that companies with low share as can be the case of specialist channels like Disney, Discovery and MTV/VIACOM, there is more cross-ownership than indicated in the table. I have decided on this method to simplify the output and using this is sufficient to substantiate the differences between the market based on regulatory difference and strength of the PSBs as well as to show if the market is dominated by local or global players.

Table 7: Cross-ownership measured by share of a company having a CR1-CR6 company in the individual market reaching two or more markets 2008

	Nat. PSB	For. PSB	P7S1 ^{xi} xixiii	RTL ^{xiv} xv	Disn ey ^{xvi} xvii	MT G ^{xviii}	VIA xixxx	DIS xxixxii	BON xxiii	MAI xxiv	BOU ^{xxv}	ITV	NC xxvi xxvii	VIV xxviii	Mset ^{xxix}	PRI ^{xxx}	LA7 xxxi	TW/ CEME xxxibxxxiii	CTV	AMI xxxiv	ANTV xxxv	PBK xxxvi
AT	42,5	8,6+4,2	15,6	14,6																		
AU	13,5+4,3																					
BE FL	40,3+3,9		10,3				1,5			3,8												
BE FR	20,1	17,1		26			2			5,3	17,1											
BG	14,2					17,1							40,2					2,7				
CA	7,1																		22,3	5,5		
CA Q	15,8+3,6																		8,3	25,9		
CH	33,1	4,9+4	8,9	14,2							5											
CH IT	32	22													25,6		1,3	2,5				
CH DE	32,8	7,1+5+ 4,9	13	16,2																		
CH FR	30,6	13,2+2, 7		12,1							18,1											
CY	21,2	2,6																				17,4
CZ	30,6					17,7												38,2				
DE	26,6+15,3+ 1,1		21,6	23,3				2,2														
DK	40+28,9		8,5		2,9	8,5		1,9														
EE	15,8	3,4		1,9		22,6																12,8
EI	36,6	8,5+5										4,4	5,6									
ES	23,2+3,5														18,5	9,7						
FI	44,7		0,8				0,7	0,6	31,3													
FR	34+1,7			12,8							29,3			2								
GB	33,4+11,9			6,1								22, 9	6,9									
GR	17,1			13,6																		15,2
HU	13,1		21,3	24,6		4,8																
HR	46,6			22,9														19,5				
IT	42,1				1								4,4		39,7		3,1					
JP	18,8																					
LT	14,3					27,7																5,7
LV	15,3			2,9		20,7	0,2						22,6									10,7
NL	34,9+1,9		19,3	23,6			4,5	2,7														
NO	37,5		9,7		4,4	9,3		2,9														
NZ	45,8+0,5							2,2										0,8				
PL	44,5						1,5	1,3					1,9									
PT	29,4															30,5						
RO	7,4		4,8															25,9				
SE	34,2		9,6		1,8	16,2		2,6	29,1													
SI	31,5	4,4		2,2		5,7		1,7														37,7
SK	22																					35,1
TR	3,2												8									
US	1,4				13,4		12,2						10,3									13,4

Source: based on Eurodata TV, EAO MAVISE DB, Annual accounts & AMADEUS DB

The table shows that the MNC impact in most markets is not one of domination, as they for most markets have not reached a level of direct threat in the individual ecologies. But it has reached a level where further research would be valuable, especially in Eastern Europe and on the role of the RTL group and Pro7.Sat1. Information wise the table include the figures of the 20 commercial media companies present between the six largest TV media companies in the 35 included markets (counting Flemish and French Belgium separately) and not counting the three Swiss regions or the Canadian region of Quebec. I will not report the three Swiss linguistic areas nor the Canadian region of Quebec, but they have been retained to show that language matters in terms of cultural proximity. Markets like Bulgaria reach 60%, French Belgium 50,4%, Czech Republic reach 55,9%, Hungary reach 50,7%, Lithuania reach 57,1 and Netherlands reach 50,1%. Sweden also yield a positive with 59,3% primarily due to TV4 majority holder Bonnier, but there are differences in the type of potential threat this represent. The main challenge in the Netherlands lies in the strength of two European MNCs RTL group and Pro7.Sat.1. In French Belgium it is the foreign penetration that influence, while the main challenge in Eastern Europe is a consequence of market development flowing their acceptance into the EU. Here, when looking at potential challenges the eastern European markets appear interesting. For the most part domestic companies continue to dominate, and while there are differences, the levels of potential threat have to be studied individually using in-depth case-study methods.

While I cannot ascertain the MNCs as a direct threat in most markets based on these figures, this has to been perceived in the context of strong PSBs. This is not the entire explanation and what the table substantiates is that the PSBs in effect balance the commercial strength, where it does not matter if the competitor is domestic or foreign. The main challenge lies in securing that the PSBs have sufficient revenue to secure their role in the market in the eye of increasing competition. Studying the MNC presence in the individual markets, we identify that we can see the two large European players RTL and Pro7.Sat.1. are those with the strongest presence in most of the included markets. The individual companies present among the six largest companies in at least 5 markets are presented below. We will not go in detail with each of the companies, nor include all their properties in this particular study.^{xxxvii}

The markets with the highest rate of MNCs are in Eastern European market counting Bulgaria, Czech Republic, Hungary, Lithuania and Slovenia to mention those with the highest rates. Besides these, there are also some in central Europe based on RTL and Pro7.Sat1 ownership. But what we can see here is also that in most markets the strength of the PSB is capable of balancing the commercial companies. The main concern is that the market strength in some cases appears divided to be between two primary players with a weaker third/fourth. What should have increased focus is the actual conduct of the companies in the individual markets in order to investigate what happens when there are relatively few competing companies. There would be merit in investigating the effects in the eastern European region which have high level of foreign entry both in terms of acquisitions, but also foreign penetration. This helps establish differences between domestic and foreign company conditions.

Studying the development of the companies we see that they increasingly take advantage of their potential for economies of scale using niche-channels to enter new multi-channel markets, or launch new channels in already established markets to secure full utilization of the resources and investment in content. The benefit for the MNCs are their potential for bundling rights and purchasing power for premium sports, where the companies dependent on single markets risk being unable to fund these rights. In effect I find that we have a three tier in the domestic market competition between PSBs and both domestic and/or international players potentially with local auxiliaries. Disney, Discovery, Viacom, but also partly Time Warner and News Corporation has followed a similar strategy internationally when it comes to utilizing economies of scale, but a bit differently when it comes to scope. A primary perspective here is that in a sense their primary market is the US, the development of the international entertainment business have encouraged and made viable a more global business perspective, which these companies have utilized. Studying the ownership features also indicate that there is a dual market between actors with primarily domestic interest and those with a more pan-regional or international interest. This indicates that we should distinguish between competition on the local and competition on the global marketplace – e.g. those competing on a particular market and the battle over the most attractive content rights (potentially bundled) across territories.

The Trans-ownership of TV market does not appear to be a considerably danger in terms of audience consumption in most markets, although there is high impact in certain markets. What does appear interesting is the economic strength of these companies in contrast to the public companies. However, in the Eastern European markets they have a stronger presence. Furthermore there is a question of cultural proximity on the one hand and international niche channels on the other when studying the MNC impact in the markets. Some of the markets with *larger* same-language neighbors have very high foreign penetration share rates, which should not directly be considered MNC impact, but rather linked to the cultural proximity thesis. As defined by Straubhaar (2003: 85) cultural proximity is "... *the tendency to prefer media products from one's own culture or the most similar possible culture*". Overall the domestic companies, incl. the public, for the most part dominate the TV market.

Both the critical as well as the more realist approach to media ownership and concentration have merit. In the individual markets, there can be high levels of concentration which can be detrimental for the market, but on the other hand in terms of MNC's we can see an advent in the aftermath of digitalization and growing pay-penetration which increase the globally available consumer group. What we are interested in is whether the MNC's have an impact or significance outside their home-market. Several large media conglomerates within TV are only present in their domestic and neighboring markets. Can these be considered more problematic, than the conditions where Berlusconi controls Media Set on the one hand and at the same time is in a position with the potential to influence the Italian PSB RAI? Is the strength of the Pro7.Sat1 in the Nordic markets any threat when taking into consideration the market structure? Companies like Disney and Discovery are taking advantage of the digitalization process to

enable them increase revenue globally. The technological development drives these trends which increase audience fragmentation and thus how this alters the market conditions.

In terms of impact Herman and McChesney (1997) argued that influence of globalization on national cultures in worst cases can be considered destructive and in best cases varied. The central point is the growth of transnational corporations, increased internationalization as well as centralization of media control. They state: *“We regard the primary effect of the globalization process – the crucial feature of globalization, and manifestation of the strength of the great powers and TNCs whose interests they serve – to be the implantation of the commercial model of communication, its extension to broadcasting and the ‘new media’ and its gradual intensification under the force of competition and bottom-line pressures. The commercial model has its own internal logic and, being privately owned and relying on advertiser support, tends to erode the public sphere and create a ‘culture of entertainment’ that is incompatible with a democratic order. Media outputs are commodified and are designed to service market ends, not citizenship needs”*. While we can argue that the TV markets are global if a company is able to utilize economies of scale, this is an argument with limitations. While we accept that the MNCs are able to penetrate more and more markets, and this way can grow in the maturation process of the TV markets thanks to digitalization and increased pay-penetration, this does not necessarily entail high level threat to the domestic media systems on the short term. However, should these organizations reach a level where they have a main impact, there is a risk of revenue being diverted to international companies which can establish increased pressure on the domestic TV industry - in particular we also have to take into account the risk of accountability displacement.

The finding that from an overall perspective, it remains the domestic companies which dominate in the analysis is in line with Tunstall (2008) who argue that national media industries are dominant worldwide, and that US media have a relatively small market share in other countries where national media is dominant. This is based on the argument that audience preferences are national cultural and linguistic. This conclusion is in an overall perspective substantiated in this analysis as well. Although there are markets where the MNC's have a larger role, the audience continues to prefer domestic channels and domestic content, which is in line with Sinclair, Jacka and Cunningham (1996) who notes that although TV is increasingly global in industrial sense and even when taking the multi-channel development into consideration it remains more local than global and the increasingly multi-channel market. Straubhaar (1991) argument on cultural proximity in this sense rings also true, as such behavior from the audience will generate advantages to local TV production. While the market concentration generally range from moderate to high, domestic media companies retain the major positions in most of the markets, in some markets, but there are conditions in certain parts of Eastern Europe, which warrant increased scrutiny.

Under conditions of increasing returns to scale, minimum efficient scale of companies is a condition of interest as this can establish a negative influence on the influx of new entrants. The threat towards

domestic markets, thus arrive from international channels utilizing scale economic to their benefit, measured in terms of competition this is beneficial, but in regard to the consumer interest in domestic production there are two possible outcomes, either the companies on the market will secure share through domestic programming and premium rights, or they will attempt to reduce costs by acquisitioned programs. This can be a benefit to the content producers able to utilize scale economics, as indicated in other industries (Bernard & Jensen, 1999, 2004) where companies exporting tend to be more efficient than the non-exporting counterparts, meaning that exporting companies either face more competition and adapt or have to be more efficient to enter the export markets. This is also why an international focus can be important for commercial TV operators to ascertain their business success. Instead of perceiving the current development as a direct threat for television, it is more a development towards increased competition and diversification of television products, which will focus the media companies either towards niche-markets, or other revenue-sources. Competition can be beneficial if it force broadcasters to compete the quality of their programming content, which is where a standard setting PSB is beneficial as it can raise the bar. However, there can also be adverse effects if it develops into a continuous down-ward spiral of ever-cheaper domestic productions as most audience cannot evaluate program quality due to of information asymmetries. This can result in cut-throat competition.

Conclusion

Usually there are six or less primary companies in a single domestic market, meaning that the TV market as analyzed remains under conditions of oligopoly. The primary players continues to be domestic for most markets, questioning the impact of MNCs, however accountability displacement is a major concern when it comes to MNCs, and while this would be serious it does not appear to be a serious concern for most of the markets, however the conduct in the eastern European and the Italian markets could warrant some attention. Political intervention works; PSBs remain in most markets in strong positions balancing commercial activities and widen the choices available for the individual citizens. In the battle between commercial players the PSBs influence the result showing that the State using regulatory measures as well as PSBs balance that market. Overall market concentration in TV markets measured this way appears does not appear for the most part to be serious threats, with some exceptions like the current Italian situation. To show change in market concentration as well as the change happened as a consequence of the crisis in terms of revenue reductions and changes in ownership the information would require update to establish time-series, even though it requires some time-consuming work. .

Market concentration in the TV market is fairly high in most markets and function under conditions of oligopoly. However, the type of market structure in the individual markets remains quite diverse. Even though we could not identify a statistical relation between the size variables and the level of market concentration, we could also see that the US market did have lower levels than most of the other included markets, in this we have to keep in mind that difference between the size of the US market as compared to the other included. Very large markets could represent different market structures with less concentration ratios. Inclusion of markets like Brazil and Russia would help exemplify this.

Furthermore, when looking at the influence of MNC's, the eastern European markets are the ones where these companies are mostly represented, but for the most part the markets are mainly dominated by domestic media companies.

The European states have a state approach to the TV markets in contrast to the more market oriented in for instance the US. The PSB are accountable to the public, but in principle also to the State and well as having to balance commercial TV. This means that the PSBs have a potential to balance intrusive global players in so far the regulatory measures allows it. In this sense the PSBs, (usually) have less revenue than a MNC when measured against the total turnover, but in terms of means available for investment in the domestic market, the PSB can be better off and thus retain the potential to compete for audience. The main challenge lies in the fight for premium rights where the MNC's like for instance News Corporation can have an interest to further pay channels using the exclusivity potential of premium rights. The MNCs have advantages in terms of bidding for rights and being able to recoup possible loss in one market using revenues from others to ensure competitiveness. This is a benefit of the MNC's, as they can be able to grow using the ongoing global trend until saturation is reached in the global market.

From a general perspective TV markets are generally under conditions of oligopoly, but with significant differences in terms of oligopoly type. This entail that when we investigate TV market conditions and company conduct we should keep this in mind as we with further investigation could identify and classify different TV market structures and their effect, i.e. what difference does it make in a society if there is a dominant company with few followers, or a duopoly structure.

We could not identify correlation between the size variables and the market concentration levels; however, this is a consequence of the market intervention practice and the relative market strength of the PSB. PSBs are able to function as counterbalances in their domestic markets [procuring domestic production of creative works of arts]. PSBs function as counterweights to the increasing commercialization and profit-oriented conduct of private broadcasters makes sense, but only in so far they are kept in check by other types of companies to avoid reaching monopolist conditions in the individual markets. It could be argued that the role of the PSBs worsen the conditions for commercial broadcasters as they divert share and potentially revenue from those, but on the other hand it secure organizations able to invest in national production and take risks on potential non-profitable projects.

Government intervention continues to be a major factor influencing the scale of market concentration, but also one which will prove important to balance the potential development of MNC's. However, in line with Bargadian (2000) narrow government or private enterprise control over the media would not be feasible, rather the challenge lies in securing multiple information streams where particular concerns

might bias one stream of information, but not all. The TV market is turning increasingly global in terms of international trade and ownership, but the local is what primarily interest the audience. While international channels and technological development creates create a drive towards decreasing concentration, the domestic media approach is similar in that they also can establish specialist channels using similar technology. This on the other hand creates a drive towards increasing concentration as it can deter or oust external players. Therefore the development is dependent on the factor of government intervention, domestic commercial media company conduct and strategy as well as the advantage for MNCs in a particular market. If the world market follows the current trends of increasing pay-penetration and market maturation, the MNCs will be able to employ their financial strength, media content and knowhow to utilize economies of scale and scope to a significant extent, however even if this happens the impact of their existence will be dependent on the counter-strategies of domestic companies, if they are able to utilize any.

When regulating media markets we are trapped between concerns for competition and diversity. Thus, we can end up in a catch 22, we want competition to secure a diverse media landscape, but we also need some degree of concentration to secure that the companies can have sufficient scale to function on the market with economies of scale and increasing returns to scale characteristics. If we don't want competition, we are in practice foolish as we don't attempt to secure the interest of the consumers by having a diverse market. However, we are also foolish if we have too little concentration, in that case we risk that the citizens/consumers suffer anyway, as what they are offered risk being of less quality and mostly of foreign origin content. In short, we are foolish if we focus only on competition and foolish if we don't secure competition - the catch is that we don't know if there actually is a balance. We want domestic original content, and the simplest way to secure thus is through the public broadcasters, especially in small[er] market conditions and this is what happens in Europe. However, as long as there remains primary focus on the local, rather than global more detail should be put towards the limiting adverse effects in the market by monitoring the actual conduct of TV companies comparatively.

What we have identified is that the TV markets remain under fairly high concentration levels, but also that it remains dependent on the impact of the domestic TV market ecology and strength of PSB. The politics – market interdependency appear important for understanding the TV market concentration ratios and why they for the most part remain dominated by first of all local players, more than global players and secondly that PSBs often help secure this market situation. Based on the concentration ratios discovered we cannot automatically claim that the levels are too high to warrant attention, but rather we should focus on the actual conduct in the individual markets, where TV market dominance like in Italy is deemed unhealthy in terms of free access to information based on editorial independence. On the other hand, the markets while concentration remains balanced between public, private domestic and private regional/global players, this secure that not a single company is able to attain a monopoly situation.

Global/regional players act side by side with domestic private and public players. Local players remain dominant in the battle for the TV market ecologies, and while the global/regional players attempt utilization of economies of scale, their effect remain fairly limited. The global players while increasing in revenue, does not have manageable control over the markets in the analysis, rather than that their utilization of economies of scale. While domestic private players remain fairly strong in the competition with both global MNCs and locals PSB, we see that the relation between the politics and the market remain inherently interlinked. The TV markets remains heavily regulated and in most of the studied markets the PSBs manage to keep strong positions in the domestic media landscapes, which could not happen without the political will to secure this. The global players challenge the domestic TV, but as for now local domestic companies' remains dominant.

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ⁱ Oligopoly is a market characterized by being dominated by few, but more than one, suppliers of the same commodity type, being either homogeneous or heterogeneous. There are several different potential market structures under conditions of oligopoly and duopoly. There are thus conditions of imperfect competition, there is no monopoly but the companies have a certain market power to potentially influence the market price. The limited number of producers can lead to collusion between the companies or usually that the companies observe the competitors conduct and strategies, e.g. their strategic behavior. An oligopoly market structure is the most common due to factors of economies of scale; barriers of entry and horizontal/vertical integration due to buying up and fusion of companies. The company market power and price-setting can be established in different ways; for instance as a leader-follower game or tit for tat games.

ⁱⁱ Keep in mind that a State can, but do not have to subsidize the media, as such it becomes an intervening variable

ⁱⁱⁱ I will apply the US guidelines here, both there are some difference in the approach

^{iv} In the sample 5 small markets can be defined as having special conditions due to large same-language neighbor difficulties, the large market Canada has a similar condition due to smaller scale than the US, the Quebec market has a separate language benefit and New Zealand does not have regional extension to same-language market. The Belgium market is split in two, based on language.

^v In some instances where there are cases of joint venture, a decision have been made on where to place the particular channels, an example are the joint ventures between BBC World Wide and Virgin Media television LDT, where the channels have been placed under Virgin.

^{vi} The prime-time viewing yields in general a higher CR score

^{vii} Not all markets have two PSBs; therefore it is only the markets with a second PSB that is present in the second column.

^{viii} The averages are without the regional Swiss and Quebec figures

^{ix} This is, however, not the case in the entire sample where markets like France, Spain and the Canadian region of Quebec are instances where the all-day viewing is more concentrated, then the prime-time. The incentive consideration is again in focus as what can be observed is as the number of services offered increase, the audience becomes more diffused. Meaning, that prime-time concentration will increase in so far, the largest broadcasters are able to retain their audience share either by increasing the numbers of channels or by using attractive programming.

^x As a matter of argument, there is cross-audience viewing especially in Austria, Switzerland, Flemish Belgium and Ireland, as well as in some of the Eastern European markets, see my forthcoming doctoral thesis.

^{xi} Pro7.Sat.1

^{xii} Pro7.Sat.1. is present in 11 of the markets (not counting the German and French speaking Swiss region); they have a presence in the Scandinavian markets (Denmark, Norway, Sweden and Finland), in Central Europe (Austria, Germany, Flemish Belgium, Switzerland, Netherlands) as well as in Eastern Europe (Hungary and Romania). The company have made a complete list of properties available in their Financial statement and management report for 2009, but the core business mainly consists of Free-TV, but also include Pay-TV and radio activities. The company reaches 78 mn. European TV households and had consolidated revenue of 2,76 bn. in 2009 a decrease of 9,6% compared to the revenue of 3,05 bn. in 2008 (Pro7.Sat.1, 2009).

^{xiii} The drop in revenue can be seen as a consequence of the crisis, but they also positively mention the hybrid model for commercial broadcasters consisting of both distribution and advertisement revenue, thereby reducing the effect of the crisis. It is a similar argument as the one supplied by discovery in context: "Over the past few years, stations in the Danish TV market have significantly reduced their dependence on the advertising market by establishing what is known as a "hybrid" revenue model: stations finance themselves with cable fees in addition to TV advertising revenues. ..."Digital television [in Denmark] led to the establishment of a hybrid revenue model there, based on revenues from both TV advertising and distribution fees. Depending on the station, distributors pay from EUR 0.50 to EUR 3 per month for the right to distribute and market the channel." This change in revenue is not only happening in Denmark, but may very well be one of the drivers of both audience fragmentation as well as a potential for decline in market concentration, but it raises also indicate that as the markets continues to mature internationally we will see an increase in audience fragmentation, they question is what if any effect it could have on market concentration.

^{xiv} Bertelsmann & RTL group

^{xv} Bertelsmann (RTL group) is present in 13 of the markets (not counting the German speaking Swiss region). The markets where they are within the six largest players are Austria, French Belgium, Switzerland, Germany, France, UK, Greece, Croatia, Hungary, Latvia, Netherlands and Slovenia. The company consolidated revenue in 2009 was 15,36 bn. EUR; an decrease from the 2008 revenue of 16,24 bn. The RTL group represented 34,4 of the total revenue in 2009 equal to 5,4 bn., a drop from 5,77 bn. in 2008. This makes RTL group with its content production arm Fremantle Media a leading player in the European TV landscape. Divided the revenue originate mainly in Europe with 34,4% from Germany, 58,1% in the other European markets, 5,1% from the US and just 2,4% from other markets. Their properties cover both radio and television in the RTL group; the publishers Random House

[books] and Gruner + Jahr [magazines] as well as the media and communications services provider Arvato. A complete list of properties and subsidiaries are available in their annual report (Bertelsmann, 2009)

^{xvi} Walt Disney Company is present as one of the six largest companies in five of the markets, being Denmark, Norway, Sweden and Italy primarily with children and youth channels, but also in the US with the Disney/ABC television group. The children and youth channels are spread by satellite to most European markets as subscription channels, in fact Disney Channel in 2009 had 194,3 mn. Subscribers around the world, albeit the around 98 mn. of these in the US(WDC, 2009^{xvi}), to this we can add ESPN, AETN/LIFTIM as well as other cable type properties, such as Jetix, Disney XD and Playhouse. By using the pay-TV development and digitalization Disney has managed to enter utilize their economies of scale as well as scope. An indication of this is the increase in revenue from 24,4 bn. \$ in 1999 (Disney, 1999), to 36, 1 bn., in 2009 for the Walt Disney Company (Disney, 2009). And while this is a reduction from the 37,8 bn. in 2008, but still better than the 35,5 bn. in 2007, meaning that they are beginning to recoup after the financial crisis.

^{xvii} Disney

^{xviii} Modern Times Group (MTG) is present in 10 of the markets, consisting of the Nordic markets (Denmark, Norway and Sweden), The Baltic markets (Estonia, Latvia and Lithuania) as well as other eastern European markets, i.e. Bulgaria, Czech Republic, Hungary, and Slovenia. The MTG properties range from Free-TV, Pay-TV (VIASAT, TV1000), Radio, online activities as well as studios. MTG revenue amount to 14,2 bn. SEK in 2009 an increase from 13,2 bn. in 2008.

^{xix} VIACOM

^{xx} VIACOM is present as one of the six largest companies in 8 of the TV markets. These are Flemish and French Belgium, Germany, Finland, Latvia, Netherlands, Poland and the US. Company wise they own media network properties like MTV Networks (MTV, VH1 CMT, LOGO, HARMONIX and MTV Games), Nickelodeon (Nickelodeon, Nick@nite, nick.com, nick jr. Teennick, nicktoons and more); Comedy central (comedy central, Spike TV and TV land) and Bet Networks. Under filmed entertainment they have Paramount Picture, Paramount vantage, Paramount Classics, MTV films and Nickelodeon Movie brands. The total revenue in 2009 amounted to 13,6 bn. US \$ a decrease from 16,6 bn. in 2008, but more than the 13,4 bn. in 2007 (Viacom, 2009). The company has been able to utilize their properties and intellectual property on an international scale. While National Amusements Inc. is a majority owner of both VIACOM & CBS I have kept the two separate here in terms of ownership.

^{xxi} Discovery

^{xxii} Discovery Communications Inc. is present in eight TV markets, being Denmark, Finland, Norway, Netherlands, New Zealand, Poland, Sweden and Slovenia. Their primary business consists of their U.S. Networks; their international networks and their auxiliary business related to commerce, education and other activities. They have channels like Discovery Channel, TLC, Animal Planet, Discovery Health, own, Discovery Kids, hub, Science Channel, planet green, Investigation Discovery, Military Channel, Fit TV and HD Theater. The company revenue in 2009 was 3,5 bn. US \$, a small increase from 2008 where the revenue was 3,4 bn.

^{xxiii} Bonnier

^{xxiv} MEDIA AD INFINITUM

^{xxv} BOUYGUES (TF1)

^{xxvi} News Corp. +BskyB

^{xxvii} News Corporation is present in six markets Bulgaria, Ireland, UK, Italy, Latvia, Turkey and the US. The company represent a total revenue of 30,4 bn. \$ in 2009 an increase from 21,8 bn. in 1999. The News Corporation has interest across a wide specter of media interest ranging from News Papers and information Services in the UK and Australasia as well as internationally, the Fox Broadcasting Company, 20th Century Fox as well as other studies, Sky Direct satellite television and the publisher HarperCollins (News Corporation, 1999, 2009).

^{xxviii} VIVendi

^{xxix} Mediaset

^{xxx} PROMOTORA DE INFORMACIONES SA (\Prisa\)

^{xxxi} LA 7 TV

^{xxxii} Time Warner & Central European Media Enterprises

^{xxxiii} Time Warner & Central European Media Enterprises is present in 8 TV markets. Time Warner is present in Bulgaria, Romania, Slovenia, Croatia, Slovakia, Czech Republic, New Zealand and The US. Time Warners assets are

in networks, filmed entertainment and publishing with the companies HBO, Turner Broadcasting System, Warner Bros. Entertainment as well as Time Inc. In addition Time Warner has a 31% stake in CEME. Time Warner total revenue in 2009 amounted to 25,8 bn. US \$ in decrease from 26,5 bn. in 2008 due to the crisis (Time Warner, 2009.).

^{xxxiv} Astral Media Inc

^{xxxv} ANTENNA TV S.A.

^{xxxvi} PIRMAIS BALTIJAS KANALS SIA

^{xxxvii} We are mainly interested in companies present in more than 3 markets, in the table there are seven companies present in two markets (regional not included): *Bonnier* which is present in Sweden and Finland; *MEDIA AD INFINITUM* is present in Flemish and French Belgium markets; *ANTENNA TV S.A* is present in Cyprus and Greece; *ITV* is present in the UK and Ireland; *PROMOTORA DE INFORMACIONES SA (Prisa)* is present in Spain and Portugal, *Media Set* is present in Italy and Spain as well as *Vivendi* being present in France and Poland. Secondly there are two companies present in three markets; *PIRMAIS BALTIJAS KANALS SIA* is present in the Baltic markets of Estonia, Latvia and Lithuania; *BOUYGUES^{xxxvii} (TF1)* is present in France, Switzerland and French Belgium. These are not the companies we have a main interest in.