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Does regulation of audiovisual content work – and is it necessary?

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Abstract

This paper discusses the need for regulation of audiovisual services content in the light of recent developments in information technology. The European Community as well as the Norwegian government regulates the content of television broadcasting with the objective of protecting cultural heritage, promoting diversity, independent production and local content. It is argued that empirical evidence suggests that the local content regulations are not binding and that local audiovisual service providers have increased their market shares also in unregulated markets. A simple model predicts that as the number of available services expands, the market share of local providers increases. A shift towards shorter services (single songs rather than music albums, video clips rather than movies) is also predicted while quality services may suffer. The results suggest that direct regulation of services content in audiovisual services is neither necessary nor effective.

JEL: F13

Keywords: Audiovisual services, regulation, international trade

1. Introduction

Protecting and promoting cultural diversity is a policy objective in most countries, and most countries subsidize local culture, regulate media content and restrict international trade in audiovisual and cultural services. Audiovisual services are for instance one of the least committed sectors in the General Agreement on Trade in Services (GATS) under the auspices of the World Trade Organization (WTO). At the same time it has among the largest number of most favored nation exemptions. The perceived threat to cultural diversity in general and local cultural expression in particular is commercial mass culture, mainly produced and/or distributed by the major multinational media houses.

Recent developments in information technology have lowered the cost of producing and distributing audiovisual services content substantially. Digital cameras, including web cameras, and digital music recording equipment have become available to individuals while the internet has provided amateurs as well as professional artists a low-cost distribution channel with almost unlimited reach. The proverbial garage studio has become a real possibility for talented (and not so talented) people to record their music or video clips and post it on the internet. Anecdotal evidence abounds of hits that reached their audience this way. And the enormous popularity of web sites hosting self-produced content (e.g. YouTube) suggests that a market for online entertainment is rapidly emerging.

At the receiving end video cassette recorders and later DVD burners have since long allowed consumers to time-shift broadcast content, making them less dependent on linear broadcasters' schedules. More recently, technology also allows space-shifting where television can be watched on laptops and mobile phones. In addition mobile handsets and game consoles are also becoming household equipment that broadens the choice of services. According to a recent EU study, internet users claim to use the internet more than any other medium except television (European Commission, 2005). Finally, advances in television

equipment (e.g. wide-screen LCD or plasma screens) and access to broadband have extended the range of audiovisual services that can be consumed at home and narrowed the gap between the quality of for instance cinema and home viewing.

Judging from developments in consumption through the traditional distribution channels, it appears that the fear of diminishing cultural diversity is exaggerated in. Looking at the Norwegian market for instance, one would expect that such a small market where the population by and large is proficient in English, would succumb to English-spoken mass culture. Perhaps surprisingly, it appears that local films, music and TV productions are flourishing and enjoy the past couple of years have been the best ever for local music production (IFPI, 2007).

Traditional audiovisual services (music, television and movies) are nevertheless losing ground. Total CD-sales have declined in most OECD countries in the past few years, people spend less time in front of the television set and visits to the cinema are also declining. A probable explanation of this trend is the emergence of new types of audiovisual services. Given that the time budget for consuming audiovisual services is limited, the emergence of popular video games played on game consoles or computers, and a broad range of interactive activities on the internet leaves less time for traditional media.

The content of these new media services has not been analyzed in a comprehensive way and little can be said with certainty at this stage about to what extent diversity and local cultural expressions are observed, but anecdotal evidence suggests enormous diversity in the new media. A recent book argues that the internet allows a long tail to emerge because of next to free distribution on networks where shelf space is not a limiting factor. Thus, while audiovisual content (songs, video clips etc.) that attract only a few customers in each location would never make it to the CD or DVD store, cinema or TV channel, the aggregate demand from all people with access to the internet in niche products constitutes a substantial market.

It is thus argued that the mass market is turning into a mass of niches (Anderson, 2006). Norwegian black metal (music) is a case in point. A relatively small share of the total population listens to black metal music, but the global audience is large. When a cheap distribution channel can be found that reaches this global audience, a vibrant niche can emerge almost anywhere.

Anderson (2006) argues that there are products that most people like or at least tolerate (e.g. Mozart, the Beatles, football, James Bond) but everybody has their favorites that they share with few others in their local community. In the past when the shelf space in the local record or video shop, the schedules of the national TV channel or the movies presented at the local cinema limited people's choices, there was little scope for pursuing such special interests. However, the web does not have such limitations and can carry anything that has been digitized at very low cost. Therefore, almost unlimited variety is possible on the internet. For instance, while Wal Mart, the world's largest retailer, carries about 55 000 music tracks, Rhapsody, an internet set for (legal) music downloads carries 1.5 million tracks. While the typical Blockbuster DVD shop carries 3000 DVD titles, Netfix, an internet cite carries 55 000 titles and while a large bookstore can carry up to 100 000 books, Amazon offers 3.7 million book titles. Furthermore, titles not available in bricks and mortar stores constitute the fastest growing market for these internet sites and account for between a quarter and half of total revenues.

This paper first assesses to what extent regulation in order to obtain cultural diversity and promote local content and independent producers is necessary in the new media world. It appears that local content requirements in EU as well as in Norway is not binding, suggesting that the market could provide the desired results without direct intervention from regulatory bodies. The paper second discusses to what extent the most common policies used to promote cultural diversity are practical under the market conditions that the new media have initiated.

In particular, when services become more interactive, content is to a larger extent pulled by consumers rather than pushed by providers, and restrictions on broadcasters' content in linear services may have a smaller effect on what people actually consume than before.

The rest of the paper is organized as follows. Section 2 describes the regulatory framework in the European Union. Section 3 presents recent developments in media use and sources of media content while section 4 presents a utility maximization problem where consumers love variety in the consumption of cultural services, there is a home market bias, and they optimize utility subject to a time-budget constraint, while section 5 summarizes and concludes.

2. Regulatory framework

In the European Union the two most important directives are the Television without Frontier Directive and the Electronic Commerce Directive. The former applies to television broadcasting services while the latter applies to information society services.

2.1 Television without frontier (TVWF)

The European Union introduced the Television without frontier directive in 1989. It was last amended in 1997, and is currently under revision in order to take into account the changes in technology and market conditions that have occurred in recent years. The directive constitutes the legal framework for broadcasting in the European Union by setting minimum rules for the regulation of content by the Member states. The objectives of the directive are to:

- Facilitate the free movement of television broadcasting services within the EU internal market through the application of the country of origin principle;

- Ensuring the protection of fundamental public interest objectives, including protection of minors and human dignity;
- Protecting European cultural heritage and diversity, promoting European content and cross-cultural exchange and supporting the development of independent producers;
- Encouraging the growth of a strong, competitive and integrated European audiovisual industry.

The television without frontier directive regulates content of broadcasting television. While television broadcast remain the by far most important provider of audiovisual services, other media, including satellite broadcast, cable TV terrestrial broadcasting, the internet, and mobile and DSL platforms are rapidly gaining market share. In order to ensure technology-neutral regulation of content it has been suggested that the television without frontier should be extended to include new AVC services. As it now stands, the same audiovisual media content is subject to a different regulatory regime depending on the channel through which it is distributed and the way it is delivered. Furthermore, while traditional television is subject to common EU regulation, other channels of delivering the same type of content are subject to differing national regulation (European Commission, 2005).

The TVWF directive contains basic rules relating to protection of minors, public order and human dignity, identification of advertisements, a ban on tobacco and prescription drug advertisement, right of reply and identification of the content provider. In addition it contains rules concerning quotas on EU content and independent production, advertising frequency and restrictions on advertising minutes per hour, restrictions on alcohol advertising, restrictions on sponsorship and access to events of national importance.

Audiovisual services can be divided into linear and non-linear where linear services are scheduled in an order that the viewer cannot change. Non-linear services, in contrast,

provide audiovisual media programs on a demand basis. While most EU countries + Norway have in place basic regulation related to advertising and protection of minors and human dignity for non-linear audiovisual services, regulation tend to differ. This can constitute a barrier for an integrated internal market for audiovisual services, as providers must comply with at worst 26 different regulatory regimes in order to service the entire EU + Norway market.[1] As far as local content is concerned, only France has some regulation in place on non-linear services (European Commission, 2005). Thus the existing regulatory regime distorts competition between linear and non-linear services.

It appears that the options for amending the current type of regulation such that it becomes technology neutral are limited. While basic regulation as defined above can be enforced for all services, direct regulation of national and European content can probably only be imposed on non-linear services at great cost. Furthermore, bandwidth spectrum limited the variety of channels and content in the analogue area, and this justified regulation of access to a scarce resource. In the digital age in contrast bandwidth is no longer a limiting factor and regulation based on scarcity appears not to be warranted.

2.1 E-commerce directive

The e-commerce directive (Directive 2000/31/EC) relates to "information society services" which includes on-line entertainment services such as video on demand. The objective of the directive is to provide legal certainty to business and citizens and to ensure the free movement of information society services between member states. Like the TVWF directive the source principle applies. Thus, once compliant with the source country regulation information society services can move freely within the European Community and the EEA. Regulation is, however to a lesser extent harmonized than that for the TVWF. For instance in areas such as

[1] See for instance Kox and Nordås (2007) for a study on the impact of regulatory heterogeneity on trade in services.

protection of minors, and consumer protection it allows members to derogate from the country of origin principle, resulting in non-harmonized rules.

The directive establishes limitations on liability of internet intermediaries providing services of mere conduit, caching and hosting. It also prohibits member states from making the provision of information society services subject to prior authorization.

In effect, the non-linear audiovisual services that are regulated through the e-commerce directive face substantially lighter regulation than linear television services. Even if a number of non-linear services are not competing directly with linear broadcasting services, they do compete for consumers' limited time for consumption of entertainment services. Moreover, non-linear audiovisual services are likely to be a closer substitute to linear broadcasting for the younger generations that have grown up with the internet. There is little reason to believe that they will change their media consumption patterns as they grow older.

A recent study from the European Commission (2005) recommends that basic rules be applied to all audiovisual services irrespective of platform and technology. It is also argued that this would not introduce new regulation on non-linear services, but merely harmonize already existing rules in the Electronic Commerce Directive. It also recommends that the country of origin principle that currently applies to the TWFD also should apply to non-linear services, which it currently does not.

Another recent study commissioned by Ofcom, the British regulatory body finds that an extension of the TVWF directive to all audiovisual services would not contribute to diversity. To the contrary it finds that extensions of the rules beyond the basic ones would add substantially to compliance costs as well as regulatory costs. The entry barriers for new services providers would increase, a feature that would favor incumbents, slow down the rate of entry and reduce the incentives for consumers to take up broadband. Furthermore,

regulators would need to control thousands of providers adding to regulatory costs, unless a self-regulatory mechanism could be found (Ofcom, 2005).

It appears that while technology has undermined the effectiveness and relevance of existing regulation, it is not clear which regulation should be designed in order to obtain the policy objectives they are directed towards. In the next section I will discuss to what extent the unregulated market can deliver on these objectives as far as local content and cultural diversity are concerned.

3. Recent developments in media consumption

The Norwegian content on TV2, the largest commercial TV channel, increased from 60% in 2003 to 64% in 2005, and most of the programs during prime time are Norwegian. The restrictions on foreign content are thus not binding for this TV channel. However, most of the foreign content is from the United States, accounting for about 30% of total, leaving only about 5% for non-Norwegian European content (Mediatilsynet, 2006). The Television without frontier directive's objective of promoting intra-EU/EEA cross-border television thus appears not to have been successful. Similar developments are seen in other European countries where local content is large and increasing, while American content accounts for most of the foreign content.

Turning to music, the Norwegian share of CD-sales increased from 25% of total in 2004 to 36% in 2005, which was the best year ever for Norwegian CD sales in spite of falling total sales (IFPI, 2006). Finally, Norwegian movies share of total ticket sales at Norwegian cinemas have stabilized at around 12-15% since 2003, after having fluctuated between 5 and 12% since 1975 (Fim&Kino, 2006).

A similar development as that seen in Norway is observed in other European countries. In the Czech Republic total visits to the cinema has been on a long-term downward trend, but

the share of local movies have held up and the most popular film in terms of audience was a local film, while 4 out of the top 10 were also local in 2005 (Ministry of Culture, 2006). In the European Union (the 25 current member countries) as a whole, visits to the cinema dropped by 6% from 2003 to 2005. The largest decline was observed in Slovakia (-25.8%), while France exhibited a small increase (1.3%). The share of local films has, however, remained stable or increased in most European countries. The highest shares in 2005 were found in France (36.9%) while Denmark and the UK both had 34% local films (European Audiovisual Observatory, 2006). In France CD sales declined by 10.7% in 2006, but for the first time ever all top 10 CDs were French (SNEP, 2007).

The fastest growing business model for many audiovisual services is subscriber-based services. Television, video on demand, music downloads and others are provided through this business model. According to a recent study by the European Commission (2005), the compounded average growth rate of TV subscription spending per household in the EU-15 during the period 2004-2009 was expected to be close to 6%, while in Norway topped the list with an expected growth rate of about 8%. The same study reports that users of internet systematically spend less time watching TV than non-user in all 11 countries surveyed.[2] Finally the study reports that TV audience market share of foreign channels in 2004 varied between zero in Greece and less than 1% in Germany and Britain, to 85% in Luxembourg.

Evidence of an increasing importance of niche markets is that most of the top fifty music albums were recorded in the 1970s and 1980s, and none in the past five years (Anderson, 2006). Although accumulated sales increases over time, a hit usually sells best the first few year after its release, and it seems that the relative importance of superstars have declined (as opposed to earlier predictions that the cyberspace would be the market for superstars and winner takes it all). Likewise, the top rating TV shows today would not have

[2] The countries are the UK, Chile, Germany, Hungary, Korea, Macao, Singapore, Sweden, Taiwan, USA for 2003.

made it into the top ten in 1970, judging from the number of viewers. Increased diversity in the supply of audiovisual services when the time budget for consuming the services is limited inevitably leads to fragmentation, unless people have the same preferences. The interesting question from a national cultural policy point of view is whether fragmentation goes hand in hand with cultural diversity, and how local performers and artists do in the more fragmented market.

4. Can the market produce cultural diversity? A simple optimization problem

A simple model can capture the essence of the market for audiovisual services and illustrate some of the mechanisms at work as new types of services and new channels of distribution are launched. I focus on consumer choice and abstract from production of audiovisual services content, since the study focuses on the need for authorities to regulate what consumers are offered through certain channels rather than policies that target the supply side.[3]

Audiovisual services are no doubt differentiated products where individual consumers love while individuals have different tastes. A CES utility function captures this feature. Because many audiovisual services are paid through subscription fees to TV channels and the internet, the marginal cost for the consumer of audiovisual content consumption is very low or zero in terms of direct financial expenses. To a large extent the marginal cost of consuming music and films are also small or zero when consumers buy CDs, DVDs and listen to/watch them over and over again.[4] Nevertheless, consumption takes time and consumers only have a limited amount of time per day for consumption of audiovisual services. The relevant budget constraint for the utility maximizing consumer is therefore the time budget.

[3] See Nordås (2005) for a discussion on the relative merits of stimulating production through subsidies relative to regulating consumption.
[4] Video on demand, video rentals and live performances are exceptions since these are usually paid per unit consumed.

The standard CES utility function has the property that consumers demand all varieties in proportion to their relative prices. Thus, as the number of varieties increases in the face of a constant budget restriction, the amount spent on each product declines with the number of products. And with an almost unlimited range of varieties, the amount consumed on each product would be infinitesimal. When costs are mainly in terms of time, this would imply that consumers would spend a second or less on each service as the number of services become very large. This is obviously not realistic. Consumers would not obtain any utility from flimsy images and sounds and it is reasonable to impose a minimum level of consumption for each variety. The utility function will then be as follows:

$$U = \left[\sum_i (x_i - \bar{x})^{\rho} \right]^{1/\rho} \qquad 0 < \rho < 1 \tag{1}$$

$\bar{x}$ is the minimum amount consumed for a positive utility to arise and it is assumed for now that this is the same for all varieties. I thus abstract from the fact that different types of audiovisual services have different minimum consumption.[5] Assuming that all costs are in terms of time, the budget constraint would be $\sum x_i t_i \leq T$ where T is the total time that the consumer can spend on audiovisual services. In addition there is the constraint that $x \geq \bar{x}$ Maximizing utility with respect to x subject to the budget constraint yields:

$$\frac{x_i - \bar{x}}{x_j - \bar{x}} = \left(\frac{\lambda_1 t_j + \lambda_2}{\lambda_1 t_i + \lambda_3} \right)^{1/(1-\rho)} \tag{2}$$

[5] Consumers would presumably want to listen to a song from start to end, a movie likewise.

A first lesson from this result is that consumers would spend less on services with relatively high time costs, but the ratio of consumption falls off less than proportionally with the relative increase in the time cost of j, since $0 < \rho < 1$. As the number of varieties increases, consumers will distribute their scarce time on a larger number of services and spend less time on each. Thus, this simple framework suggests that as variety increases, consumers will prefer products of shorter duration. The increased popularity of single songs for downloads and a sharp fall in the sales of albums, and an absolute decline in visits to the cinema suggest that the model prediction in this regard is realistic.

We now extend the model by introducing foreign services and assume that the minimum amount consumed of each service in order for the utility to be positive is somewhat higher for these. The reason is that more effort may be needed in order to understand a foreign language and/or cultural context. The utility function then reads:

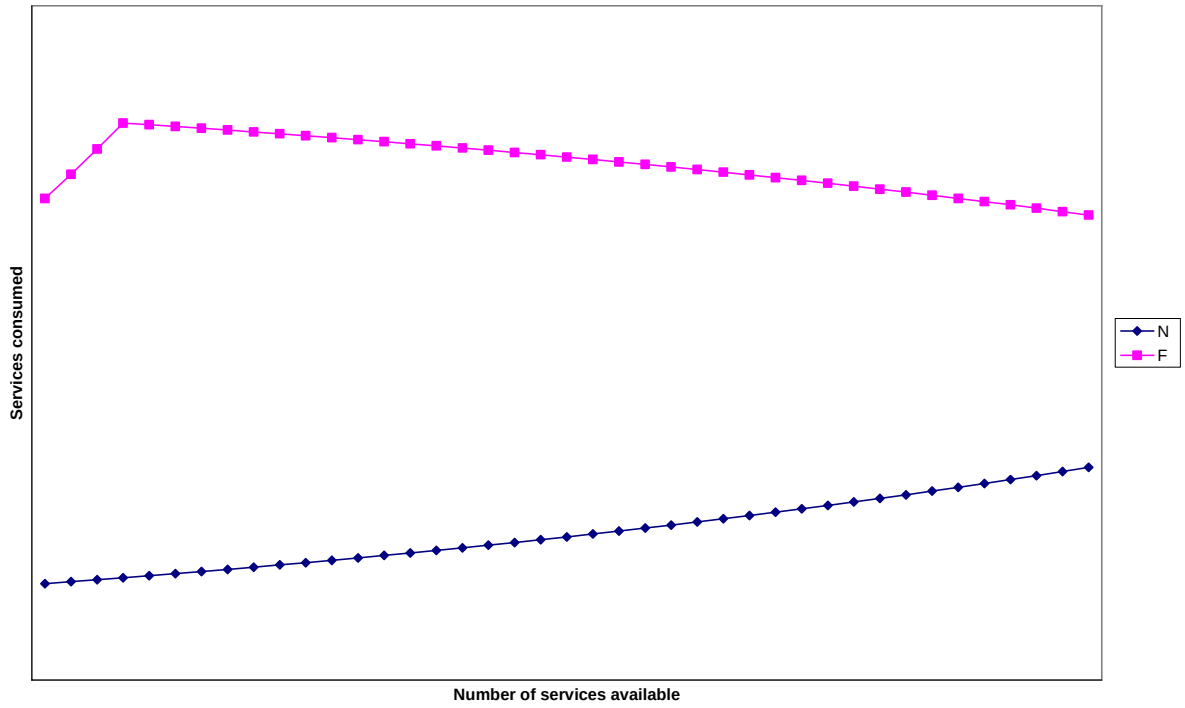
$$U = \left[\sum_i (x_i - \bar{x})^\rho + \sum_f \left(x_{jf} - \phi\bar{x}\right)^\rho \right]^{1/\rho} \quad \phi > 1$$

and the budget condition is adjusted accordingly, and $x_i \geq \bar{x}$, $x_f \geq \phi\bar{x}$. For the moment I abstract from differences within countries and impose symmetry among services such that all have the same time cost. Assuming that there are N local and F foreign services, and that the shadow price of the minimum requirement is the same for local and foreign content, consumption of each local and foreign service respectively, becomes:

$$x^h = \frac{T}{N+F} - \frac{F}{N+F}(\phi - 1)\bar{x} \text{ and } x^f = \frac{T}{N+F} + \frac{N}{N+F}(\phi - 1)\bar{x} \qquad (3)$$

The first term in both equations reflects the equal distribution of the time budget on all available services while the second term adjusts for the minimum requirement. The maximum number of products demanded satisfies the condition that $N\bar{x} + F\phi\bar{x} = T$, $x^h = \bar{x}$ and $x^f = \phi\bar{x}$. If the number of products available extends beyond this, only a subset of this will be consumed by each individual. We notice that consumption of each variety is higher for foreign content than for local content because of the higher minimum requirement to generate positive utility. Therefore, as product variety extends beyond the condition above, consumers will switch to local content, which will allow them to enjoy more variety for the same time budget. Figure 1 shows a stylized example where N and F are exogenous and they show the number of local and foreign services consumed as the number of services *available* increases. It is assumed that the number of available foreign services grow faster than local due to new countries coming on-line.

Figure 1. Local and foreign services consumed as a function of number of services available



The number of foreign services consumed increases as long as the minimum requirement is not binding, but as the number of services available exceeds the number that can be consumed within the time and minimum requirement constraint that we have assumed, love of variety implies that consumers will shift towards local productions where the minimum requirement is smaller and a larger variety can be obtained within the time budget constraint. A lower ϕ (a smaller difference between local and foreign would shift the foreign consumption curve upwards, increasing the foreign market share. This would for instance imply that the practice of "dubbing" foreign language films and other TV programs increases the foreign market share, assuming that it reduces the minimum requirement for positive utility. More exposure to foreign culture through various channels, such as media, travel and education would probably also reduce the difference in minimum requirement between local and foreign content.

Increasing the time budget would shift the foreign consumption upwards relatively more than domestic consumption and increase the foreign market share. This would be the case also when foreign and local varieties expand at the same pace. By the same token, reducing the time budget would increase local market share. If consumers spend less of their leisure time on consuming audiovisual services, for instance due to a broader variety of other leisure activities, local market share would increase.

Finally an increase in the minimum requirement for positive utility ($\bar{x}$) would shift down both curves, but the foreign would shift the most and local market share would increase while a reduction would increase foreign market share. Anecdotal evidence suggests that consumers tend to watch and listen to content of shorter duration such as single songs and video clips than before. Furthermore, a limited trial with mobile television services in Finland and Germany found that the average time of watching mobile television was about 10 minutes (Ofcom, 2005). Whether these observations reflect a movement towards the minimum level or a reduction in the minimum level is not clear.

An interesting extension of the model would be to distinguish between English spoken foreign content and other foreign content. It is likely that consumers in most of non-English speaking countries are more familiar with English than other foreign languages and cultures, and that the minimum requirements for positive utility for English content would be somewhere between local and other foreign content. It is straight forward to show that as variety broadens beyond what a single consumer can absorb within the time budget, local content would increase at the expense of foreign content and English content would increase at the expense of other foreign content. This is pretty much what we have seen in Europe. The European content requirements in the TVWF directive have been obtained, but European content is mainly made up of national content, while North America has maintained or increased its market share.

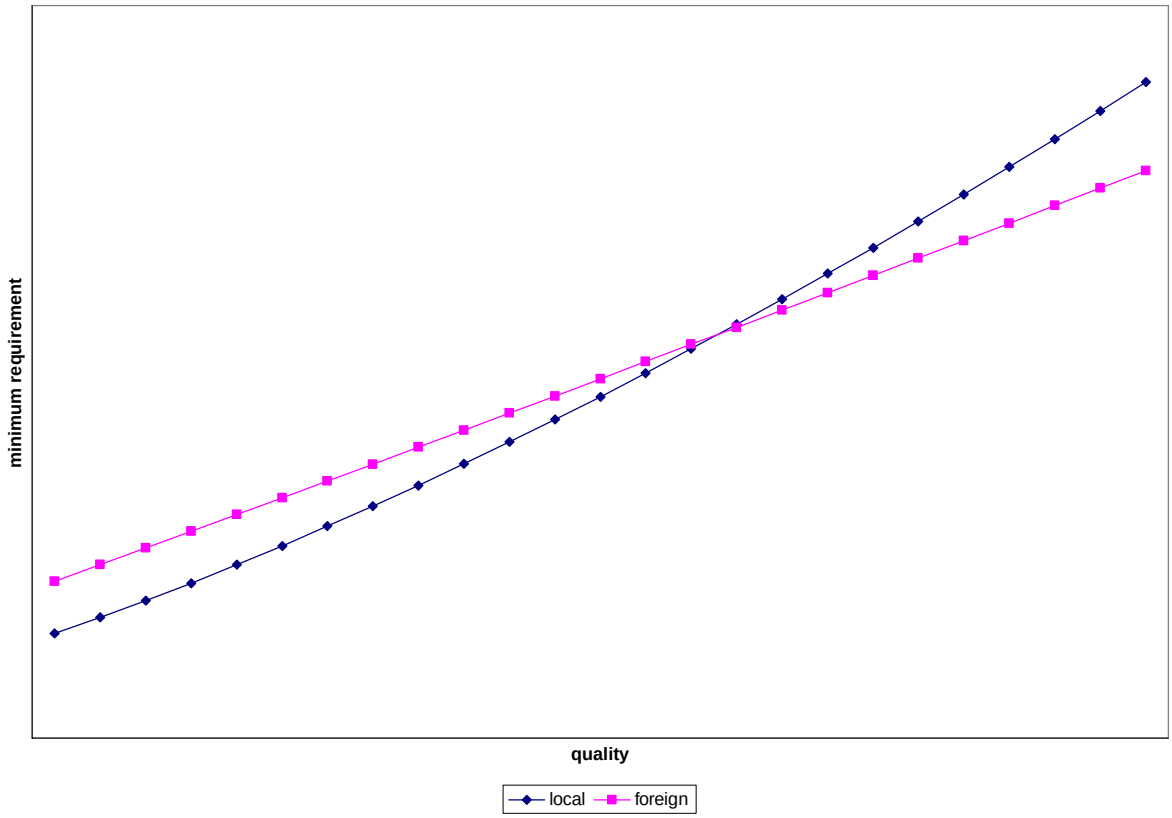
Finally, I extend the model by assuming that audiovisual services can be ranked by quality and that the minimum requirement of a service to generate positive utility is a function of quality. This function can in principle take any form, but here it is assumed that the minimum requirement function is rising monotonically in quality and that it is rising more steeply for local services than for foreign services. A rationale for this could be that for each quality level, the number of close substitutes to a particular service is larger for foreign content since by definition the number of services available globally is much larger than those provided by local content producers only. With a larger range of close substitutes it is easier at each quality level to find a service that corresponds to the consumer's particular interest.

At each quality level the consumer will choose between local and foreign content according to the first-order condition for utility maximization that now reads:

$$\frac{x_i - \bar{x}_i(\alpha)}{x_f - \bar{x}_f(\alpha)} = \left[\frac{\lambda_1 t_i + \lambda_2}{\lambda_1 t_f + \lambda_3}\right]^{1/(\rho-1)} \qquad (4)$$

Where λ represents the Lagrange multipliers related to the time budget constraint and the minimum requirements. Assuming that the shadow price of each of the minimum requirements is the same for local and foreign content and that the unit time cost is the same for local and foreign services, the minimum requirement for each service as a function of quality for local and foreign content respectively is depicted in Figure 2.

Figure 2. Minimum requirements for audiovisual services, local and foreign as a function of quality



Clearly, for low-quality services, consumers will consume relatively more of local content, while the opposite is true for high-quality services. Again the music market provides some evidence that this result is plausible. While the local market share for popular music is large and growing in a number of European countries, the foreign market share appears to be larger in classical music, although local artists playing music by foreign composers is popular and accounts for a significant market share. Figures are more difficult to come by in this segment, as classical music account for only 3-4% of total music sales (IFPI, 2007). However, it also appears that classical/art music has a larger international appeal and local superstars in this segment more often have an international audience than local popular music heroes.

The same applies to niches such as for instance black metal. Whether this music fits the quality argument may be disputed, but it has in common with classical/art music that it takes some effort, knowledge and unconventional preferences to enjoy it and the "fans" of such music may constitute a global rather than a local community. Thus, higher up in the quality hierarchy or in specific niches, markets appears to become more international with less advantage of local over foreign providers.

The same comparative static analysis applies to this version as the one discussed in relation to Figure 1. As the number of available services increases, consumers tend to shift their consumption towards shorter content, which would mean lower-quality local content. A reduced time budget has the same effect.

The results that can be derived from this simple model suggest that regulating local content through local quotas on television channels appears not to be necessary. Consumers will choose local services also in the absence of such regulation. Thus, recent developments towards a broader variety of services on a number of platforms and channels seem to shift demand towards the familiar, and hence local, services. However, there is the possibility that high-quality, more time-consuming services will lose out to faster and more easily digestible content. This may be a concern for policy makers with the objective to protect cultural heritage, diversity and quality.

5. Summary and conclusion

This paper has found that local content in the audiovisual services has, if anything increased with the proliferation of the internet and broadband which gives consumers access to an almost unlimited variety of audiovisual services. It is argued that a Stone Geary utility function combined with love of variety and quality ladder of services captures observed developments in the audiovisual services market. It is further argued that as audiovisual

services are increasingly provided on a subscription basis or free of charge over the internet, the relevant budget constraint is consumers' time. As opposed to most goods, consumption of services requires an active participation on the part of the consumer that takes time which is a scarce resource.

A simple model optimizing consumer welfare subject to a time budget predicts that as variety expands, consumers will increase their relative demand for local services of shorter duration and possibly lower quality. Quality is loosely associated with the effort it takes on the part of the consumer to obtain a positive utility from consuming the product. These findings rest on the assumption that consumers love variety, a minimum amount consumed of a service is required to create positive utility, and that this minimum requirement is higher for foreign services.

If these assumptions hold, the market can be trusted to provide the local content that policy makers desire. Although the paper has abstracted from production of audiovisual services, it appears that the entry barrier for local service providers have become lower with the proliferation of new technology, such that entry barriers are probably no longer a reason for government intervention. Intervention may, however, be justified in order to ensure quality audiovisual services. Assuming that production and consumption of quality audiovisual services contributes to the protection of cultural heritage, and assuming that such services are so-called experience goods, government support in production and marketing could be effective.

Data on audiovisual services consumption is scarce and at this stage and it is not possible to test the predictions empirically. This, together with embedding the consumer optimization problem introduced in this paper in partial equilibrium models of the audiovisual services market and models of international trade are left for future research.

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