

APPLICATION OF THE STIRLING MODEL TO ASSESS DIVERSITY USING UIS CINEMA DATA

By **Françoise Benhamou*** and **Stéphanie Peltier****

(*Professor, Centre d'Economie de l'Université Paris Nord; **Associate Professor,
GRANEM, University of Angers and University of La Rochelle)



Published in 2010 by:

UNESCO Institute for Statistics
P.O. Box 6128, Succursale Centre-Ville
Montreal, Quebec H3C 3J7
Canada

Tel: (1 514) 343-6880

Fax: (1 514) 343-5740

Email: publications@uis.unesco.org

<http://www.uis.unesco.org>

Ref: UIS/TD/10-04

©UNESCO-UIS 2010

The authors are responsible for the choice and the presentation of the facts contained in this article and for the opinions expressed therein which are not necessarily those of UNESCO and do not commit the Organization.

The designations employed and the presentation of material throughout this publication do not imply the expression of any opinion whatsoever on the part of UNESCO concerning the legal status of any country, territory, city or area or of its authorities or concerning the delimitation of its frontiers or boundaries.

Table of contents

	Page
Introduction.....	7
Section 1. Cultural diversity.....	8
1.1 Is the concept of diversity poorly defined?	8
1.2 Defining diversity – What is at stake?	8
i) Defining a policy for a sustainable level of culture and creation	8
ii) Accounting for national and local culture	9
Section 2. The Stirling model.....	10
2.1 The initial inspiration	10
2.2 The three dimensions of diversity	10
i) Variety	10
ii) Balance.....	10
iii) Disparity.....	11
iv) The Stirling Index.....	11
Section 3. Enriching Stirling’s approach.....	13
3.1 Limits to the analogy of environmental economics	13
3.2 Improvement to the initial model	13
i) Dealing with demand	13
ii) From the Stirling Index to the H_{bfp} Index.....	14
Section 4. Availability of the variables and the adaptation of the initial framework to the first form of categorization: The titles.....	15
4.1 The availability of variables	15
i) Variety: The supply side	16
ii) Variety: The distribution side	16
iii) Variety: The consumption side	16
iv) Balance: The supply side	16
v) Balance: The distribution side	17
4.2 Enriching the initial empirical framework.....	17
i) Balance: The consumption side	17
ii) Disparity: The consumption	17
Section 5. Language and countries – A new methodology	19
5.1 Diversity and language.....	19
i) Variety and balance produced.....	19
ii) Variety, balance and disparity consumed.....	19
iii) Disparity in languages	19
5.2 Diversity and country of origin.....	21
i) Variety supplied	21
ii) Balance supplied, distributed and consumed	21
5.3 A final view of the methodology	22
Section 6. Some issues and their interpretation.....	24
6.1 Variety by titles produced, distributed and consumed	24
i) Diversity supplied vs. diversity consumed for the variety of national films produced.....	25

ii)	Variety and balance distributed by title	28
iii)	Balance and disparity by titles consumed	29
6.2	Variety and balance by language	31
i)	The number of languages in which films are shot	31
ii)	Variety, balance and disparity consumed by language – A comparison of indexes	32
6.3	Variety and balance produced and consumed by country of origin	34
i)	The case of co-productions	34
ii)	Variety and balance consumed by country of origin	35
6.4	Towards a more general appreciation of cultural diversity	38
Section 7.	Conclusion.....	41
7.1	Proposals for improvements to the database	41
7.2	Partial and synthetic indexes	42
i)	The risk associated with presenting contradictory interpretations	42
ii)	The variation in hierarchies	43
7.3	Observing the evolution of cultural diversity with time	43
7.4	The correlation between the level of indexes and cultural policies	43
7.5	The limits of comparisons – Can the same indexes be used in different cultural contexts?	43
7.6	Correlation between variables of diversity and variables of democratization of consumption	45
i)	Assessing cultural services (cinema theatres)	45
ii)	Access to other media (video, VOD, TV, catch-up TV, internet, cellular phones)	45
References	46
Appendix	49

List of tables

Table 1.	Criteria measuring cultural diversity in the film industry, based directly on the UIS Feature Film survey	15
Table 2.	Global top ten films	18
Table 3.	The Dyen Matrix of Linguistic Distances	20
Table 4.	A summary of the improvements to the methodology	22
Table 5.	Availability of data	23
Table 6.	Number of national films produced per year	25
Table 7.	Number of cinemas per capita	26
Table 8.	Number of admissions per cinema.....	26
Table 9.	Percentage of cinemas with eight screens or more (multiplexes).....	27
Table 10.	Admissions per capita	27
Table 11.	Number of distribution companies.....	28
Table 12.	Total market share of the three main distribution companies (in % of admissions).....	29
Table 13.	Market share of the top ten films (in % of admissions)	30
Table 14.	Rate of similarity between top ten films and the global top ten (%)	30
Table 15.	Number of different languages in which films are shot	31
Table 16.	Number of foreign languages in which films are shot	31
Table 17.	Ranks obtained on average (2005-2006) with the HHI Index	32

Table 18.	Ranks obtained on average (2005-2006) with the H_{st} Index	33
Table 19.	Ranks obtained on average (2005-2006) with the H_{bfp} Index.....	33
Table 20.	Number of films co-produced (variety produced by country of origin).....	34
Table 21.	Percentage of 100% national feature films produced (balance produced by country of origin)	35
Table 22.	Market share of national films	36
Table 23.	Market share of US films.....	36
Table 24.	Market share of other films.....	37
Table 25.	Market share of national, US and other films, based on the average between 2005 and 2006 (ranked with the HHI Index)	37
Table 26.	Ranking of 27 countries based on the analysis of three criteria of cultural diversity (2005-2006)	38
Table 27.	A typology based on two criteria – Admissions and balance in consumption ...	38

List of figures

Figure 1.	Cultural diversity in the movie industry among 27 countries.....	38
Figure 2.	Diversity in production languages for Nigerian films, 2005 (number of films produced: 872).....	44
Figure 3.	Diversity in production languages for Indian films, 2005 (number of films produced: 1041).....	44

Introduction

Cinema is among one of the best-documented cultural industries. The significantly lower number of new films released each year compared to the number of new books or songs released makes it possible to collect data on the level of film production in many countries. Many countries support their cinema industry and, as such, provide diverse statistics on this activity. Also, the UNESCO Institute for Statistics (UIS) database is rich and allows for a series of data processing. This report tests and discusses the methodology presented by Andrew Stirling in a series of papers (Stirling, 2007 among others) and makes suggestions to improve on Stirling's methodology as it applies to measuring cultural diversity using cinema statistics collected by the UIS.

The cinema data used to test the Stirling model were collected for the years 2005 and 2006 using the UIS film questionnaire. The data collection covered 208 countries – but data may be lacking for certain countries or certain years. Among the criteria selected in this report, only one criterion had responses from as many as 75 countries while the response rate was even lower for the other criteria. The response rate was highest for countries in Europe and North America than for those in Africa, Latin America and the Pacific (*see Appendix, Tables A1-A3*) (UNESCO, 2008). The complete list of countries that responded to the film questionnaire is provided in this report (*see Section 5.3*).

A strong analysis requires a proper definition of diversity and a reliable methodology in order to correctly interpret the series of data provided in the database. Section 1 reviews the definition, features and stakes of cultural diversity. Section 2 presents the initial Stirling Model. Section 3 discusses the relevance of the model as it applies to the understanding and assessment of cultural diversity, and then introduces new elements to improve the ability of the model to correctly estimate the different dimensions of cultural diversity. Section 4 presents the UIS cinema data and the empirical aspects of the methodology. Section 5 emphasizes the empirical issues on cultural diversity in the film industry by utilizing the panel data model. Section 6 discusses the results and introduces suggestions for further investigations on using the Stirling model to assess cultural diversity. Finally, concluding remarks are provided in Section 7.

Section 1. Cultural Diversity

1.1 Is the concept of diversity poorly defined?

Diversity is at the core of cultural policies even though the concept remains rather unclear. According to many academics, diversity is poorly defined, “analytically neglected” and in need of “systematic or robust understandings” (Stirling, 2007). Thus far, official texts and academic analysis have put forth some very broad meanings, including “the ethnically-marked cultural differences associated with the international movement of peoples and, within national territories, the claims to difference associated with the protracted struggles of *in situ* minorities to maintain their identity and specificity in the face of the homogenizing force of national cultures” (Benett, 2001).

As the quotation illustrates, diversity is a polysemic notion that combines many aspects. Among other things, the concept includes languages, high and popular culture, and ways of life. It is also viewed as a means of economic development and as an element to consolidate democracy (Atkinson and Bernier, 2000). The Convention on the Protection and Promotion of the Diversity of Cultural Expressions refers to diversity as “the manifold ways in which the cultures of groups and societies find expression”. It was adopted by the 33rd General Conference of UNESCO in October 2005 and took effect on 18 March 2007.

So, how can we understand diversity in the context of cinema activities? Diversity in this case relies on many different factors – for example, the ability of producers to work with film-makers and actors from different origins, the number of films released or on the level of standardization of goods and more. Cultural diversity can be captured through two complementary dimensions. The first deals with the “human” criteria (i.e. criteria that apply to individuals), such as the genre or the origin of film-makers. The second dimension refers to more “material” criteria (i.e. criteria that apply to products, such as the nationality of a film). Of course, “human” and “material” criteria may be linked. The nationality of a movie depends on the original country where the film is produced but it may also have an influence on the nationality of the film-maker. More generally speaking, while some aspects are easily quantifiable, others are definitely qualitative.

1.2 Defining diversity – What is at stake?

Why is it important to have a clear definition of diversity? An available definition and measure of diversity can lead to an appropriate definition of the tools needed to improve diversity. The following are two examples of the greater policy implications of having a proper definition of cultural diversity.

i) Defining a policy for a sustainable level of culture and creation

This is a simple example to illustrate the policy implications of having a strong definition, measure, and thus, strong determinants of diversity. It is hypothesized that the diversity of cultural products implies diversity in the industrial structures and in the governance of companies. This can be seen in the TV sector in particular (Steiner, 1952). Many studies show that oligopolies with a competitive fringe dominate in cultural industries. This structure is well-adapted to the uncertainty that characterizes the production of cultural goods and services. The firms on the fringe develop a propensity to innovate thanks to

their proximity to creators while the firms in the core regularly try to attract the most creative artists and/or to purchase the most promising small labels and firms.

If we adopt this point of view, we can assert that a country that wishes to support diversity is interested in subsidizing the creation of small firms – directly or indirectly (e.g. through tax cuts, etc.).

ii) Accounting for national and local culture

The policies in favour of diversity may be paradoxical. On the one hand, one way to safeguard local cultures that are threatened by the effects of globalization is through protectionism (e.g. quotas on TV programs and cinema screens to support local production). Yet, two major disadvantages may emerge with this approach. First, there is a risk of a decrease in quality resulting from a lower level of competition. Second, protectionism represents a barrier to foreign products, which could work to *decrease* cultural diversity as an end result.

For example, quotas on European TV have not only limited the importance of American TV series but have probably raised a strong barrier to productions from Brazil, India, Africa and other countries outside of Europe. In France, two kinds of measures have been developed to support cinema:

- Automatic subsidies are allocated to producers who have already made a film. Current subsidies for a new film depend on the number of admissions reached by the same producer's previous film. The higher the success of the previous film, the higher the subsidies allocated to the new one. This mechanism leads to a growth in the number of new films. Its incidences on cultural diversity are ambivalent. On the one hand, it promotes diversity by increasing the number of films. On the other, there is a correlation between success and subsidies that may end up not rewarding innovation and risk. As a result, product standardization may increase and the level of diversity may in fact decrease.
- Regulators in France seek to encourage innovation in cultural industries by providing interest-free loans. The loans are to be repaid only once a film turns a profit (*avance sur recettes*) and all films selected by commissions based on their quality are eligible, regardless of rank (i.e. first film or not). Thus, subsidies encourage creativity, support innovation and discourage a standardization of films.

In this case, a reliable assessment of cultural diversity is essential in order to evaluate the efficiency of the measures that were adopted. Here, cultural diversity can be measured using two complementary points of view: the number of films produced (especially films from new film-makers), and the genre and quality of these films. Thus, it is possible to adopt qualitative and/or quantitative criteria to measure the efficiency of a cultural policy in promoting diversity. Nevertheless, the cultural policy issues that need to be addressed and how they are interpreted may vary deeply, depending on the respective criteria chosen.

Section 2. The Stirling model

2.1 The initial inspiration

In the field of ecology, Weitzman (1992, 1993) voices the need for a theoretical framework in order to study the challenges in the preservation of biodiversity and to build serious grounds to justify policies to ensure the survival of endangered species. More generally speaking, ecology pays close attention to the question of diversity – Odum (1953) observes this tradition in early publications and bears testimony to this tendency.

Ecology is not the only domain where the concept of diversity plays a central role. Stirling (2007) remarks that that the term “arises repeatedly in the physical (Shevchenko *et al.*, 2006), life (Maynard Smith, 1989) and information sciences (Kauffman, 1993), as well as in social (Grabher and Stark, 1997), economic (Geroski, 1989) and policy (Gillett, 2003) studies. In particular, diversity is a prominent theme in science and technology policy (Nowotny *et al.*, 2001).”

2.2 The three dimensions of diversity

Probably inspired by Rao (1982), Stirling defines diversity as a combination of three basic properties – variety, balance and disparity. These dimensions are not necessarily linked and do not evolve in the same way. Thus, it is impossible to interpret one of those dimensions without taking the other two into account.

i) Variety

Variety is the easiest dimension to understand and evaluate. It is “the number of categories into which system elements is apportioned” (Stirling, 2007). Stirling refers to different fields in which variety plays a central role and observes that it is highlighted by environmental economists through species-number indices. In the same way, the number of firms or products is a signal of variety in management and economics.

All else being equal, the greater the variety, the greater the diversity. When this principle is applied to the movie industry, Stirling’s model leads one to consider that cultural diversity increases, for example, in direct proportion to the number of films. This criterion can be considered as a measure of variety. Variety can also reflect the number of different origins of films or the languages used in them.

ii) Balance

A common mistake that is still present in many studies and arguments is to associate diversity with the sheer multiplicity of types (variety), overlooking the fact that their relative frequencies are also crucial to defining balance (i.e. the amount of diversity).

Balance refers to the pattern in the distribution of the quantity of a specific element across the relevant categories. As Stirling points out, “balance is a function of the pattern of apportionment of elements across categories.” Balance is perfect when each category is equally represented in the population.

Applied to the movie industry, Stirling's model maintains that balance refers to the extent to which different origins or languages are equally well represented. Balance is usually captured by the Shannon-Wiener Index¹ (1948) or the Herfindhal-Hirschmann Index (HHI)². In this report, the HHI will be used for two reasons. First, the HHI is a more widely used index and second, it affords the advantage of describing the balance quite correctly without having to focus too heavily on variety, making the interpretation of the level and evolution of the index easier³.

The HHI is traditionally used to measure industrial concentration in a market. This indicator is defined as follows:

$$HHI = \sum s_i^2 \text{ where } s_i \text{ is the market share of each statistical individual}$$

The higher the value of the index, the weaker the balance. Of course, the HHI not only depends on the balance but also on the number of individuals. When two firms have equal market shares in a relevant market, the HHI is higher than when three firms have equal shares in the same market. In this report, it is considered that all else being equal, the better the balance, the greater the diversity.

iii) Disparity

Disparity goes beyond these measurement schemes by accounting for the nature of the categorization. Disparity is defined as the degree of dissimilarity between any given pair of objects or types. It "refers to the manner and degree in which the elements may be distinguished" (Runnegar 1987 in Stirling 2007). All else being equal, the more disparate the represented elements are, the greater the diversity.

Applied to the movie industry, Stirling's model interprets disparity as the extent to which films display marked specificities that clearly distinguish them from one another.

iv) The Stirling Index

Stirling (1999) proposed an index that takes into account the three dimensions of diversity listed above (i.e. variety, balance, disparity). Stirling's proposal introduces a new element to the existing set of basic constituents, which considers objects to be uniquely and intrinsically distinguishable with no differences in their (relative) *proximities*.

¹ Supposing a suitably characterized context is given, basic elements for the construction of the index are a well-defined set of objects, outcomes or types, say 1, 2, ..., n, and an associated frequency (or probability) distribution p_i , $1 \leq i \leq n$, $\sum_i p_i = 1$. The Shannon Index is:

$$H_{sw} = - \sum_i p_i \ln p_i ,$$

where, though in the theoretical developments, the logs are assumed to be neperian, in practical applications they often chosen base 2.

² For a survey of the different indexes available, see Patil and Taillie (1982) as well as Stirling 2007.

³ For more details on the comparison between the Shannon-Wiener Index and the HHI, see Benhamou and Peltier (2008).

He assumes the existence of a distance function d_{ij} that is well-defined for all pairs (i,j) . The implicit influence of Lancaster's (1966) early ideas – pioneered by Gorman (1953, 1956 and 1961) – can be seen here to incorporate quality in consumer theory, where products (i.e. types) are defined by transformations of an original attribute's space⁴. In this way, a Euclidean distance can be naturally computed between products.

In the light of these assumptions, Stirling's proposal is:

$$H_{St} = \sum_{i,j} d_{ij} p_i p_j \quad .$$

Distances between pairs of elements represent their mutual disparity (d_{ij}). Variety and balance can be captured by weighting distances by the product of the proportional importance in the system of each element in the pair ($p_i p_j$).

⁴ As previously established, purely economic approaches to diversity can differ. Rosen (2004), for instance, gives an example of another independent line albeit based on standard ideas on product differentiation and imperfect competition.

Section 3. Enriching Stirling's approach

3.1 Limits to the analogy of environmental economics

Diversity is crucial to the environment and sustaining ecological equilibrium. In ecology, scientists maintain that an unbalanced ecosystem naturally leads to the disappearance of the less-represented species. This hypothesis is relatively weak when applied to culture. For instance, in the book industry, if poetry books are not published in as great a volume as novels or documentary books, this does not signify that poetry books have no future. Moreover, if all publishers decided to reach an almost perfect balance between all these genres of books, the market would face an overproduction of poetry books. The same outcome applies to the cinema industry as some films have a narrow viewership that would not justify a larger scale of production and presence in theatres. Although more copies of a film may give rise to a larger attendance rate, the limits of this growth would probably become apparent rapidly.

In the field of culture, the dynamics of the circulation of information and prescriptions are specific. Sir Alan Bowness (1989), a former Director of the Tate Gallery, studied the rise of success of four schools of English painting. In each of the four cases, a clear succession of different steps of recognition was seen, involving the professionals, the most serious critics, the collectors and the public at large. In the same way, Boudon (1984) describes the three markets linked to the intellectual life: professional certification of specialized audiences, semi-specialized large public and media. For films, the whole production process is not naturally adapted to a large public. It may be paradoxically less profitable and a film could risk becoming obsolete if the number of titles or copies is too large in proportion to their observed and potential public. In cinema, even though blockbusters attract the widest segment of the audience, not all films can be considered potential blockbusters. Although blockbusters leave fewer opportunities for other types of movies to gain an audience, some movies are better adapted to narrow audiences. This is always a necessary risk (i.e. smaller audiences) for innovative films that prepare more ambitious products.

3.2 Improvement to the initial model

i) Dealing with demand

The Stirling model focuses on the production side only, which is probably due to the heritage of ecological reasoning. However, in the field of culture, a high level of diversity supplied cannot be considered an objective per se – it has to correlate to a high level of diversity consumed. This means that production should be “correctly” distributed. Such an objective requires an industrial organization that creates the appropriate means for consumers to access the diversity of goods and services. This highlights the distinction between diversity produced and diversity distributed.

In addition, Van der Wurff and Van Cuilenburg (2004) make a distinction between open diversity and reflective diversity. Open diversity corresponds to the concept of supplied diversity. Reflective diversity measures the degree of response of supply to demand. The postulate underlying reflective diversity is that the diversity supplied should reflect the diversity demanded. However, in the cultural industries, it is rational to supply a greater level of diversity than the level that will ultimately be consumed. As Caves (2000) points out, faced with uncertainty about the future success of any given product (i.e. the “nobody

knows” property of cultural products), it is rational to “overproduce” with the aim of maximizing the chances of success. In the same way, Cowen (2002) refers to reflective diversity using the term “operative or practical diversity”. Through this concept, he defines the ability to benefit from the diversity supplied in spite of the possible obstacles that prevent some individuals from accessing the “menu of choice”.

Adopting a similar framework for the Stirling model, the distinction between the diversity produced, the diversity distributed and the diversity consumed can be introduced. One can then analyse the extent to which the diversity produced is distributed and to what extent economic agents create conditions for diversity to be consumed.

ii) From the Stirling Index to the H_{bfp} Index

The Stirling Index considers distances between each pair of elements. It does not introduce the distance between each element and one focal element that could play the role of a referent⁵. This approach may be relevant in order to measure diversity in some specific contexts when the different types or elements are considered *equivalent*.

In contrast, many economic problems require the introduction of a referent. For example, the level of diversity resulting from the introduction of new technologies must take into account not only the distances among the new technologies, but also distances between those new technologies and the previous dominant technology. Therefore, we must introduce a new index of the class of the generalized distance, taking into account the distance between all the types or elements weighted by their importance *and* the distance of each type to the referent. With this:

$$f_{ij} (\{d_{ik}, i, k \in \text{types}\}) = d_{ij} d_{ik} d_{jk} \quad \text{or all } i, j, \text{ with } k, \text{ fixed, as the referent,}$$

and the corresponding index becomes

$$H_{BFP} = \sum_{i,j} d_{ij} d_{ik} d_{jk} p_i p_j \quad \text{with } k, \text{ fixed, as the referent.}$$

Distances – in the specific case of this study – correspond to the distances between languages (*see Section 5.1*). When calculating the value of the index, the distance between the language of the referent country and the language of the national production is not taken into account⁶. In other words, for example, we consider the presence of national films in the top ten as positive and desirable.

⁵ For more details, see Benhamou et al., 2009.

⁶ Otherwise, the distance would have been equal to zero and the level of diversity would be considered very low.

Section 4. Availability of the variables and the adaptation of the initial framework to the first form of categorization: The titles

For each criterion, we choose the corresponding variables when they are available, and proxies or indexes otherwise.

4.1 The availability of variables

The responses to the UIS Feature Film Survey directly provide a set of variables which are summarized in **Table 1**. Three categories can be used here: titles, languages and country of origin.

Theoretically, the assessment of cultural diversity in the movie industry should rely on:

- produced, distributed and consumed diversity;
- three dimensions (variety, balance and disparity); and
- four forms of categorization (title, language, geographical origin and genre of films).

Given the lack of statistical data on the genres of films in the UIS Database, this last form of categorization had to be discounted.

A 3×3×3 matrix of indicators of cultural diversity in the film industry can only be partially completed (see *Table 1* and *Table 4*). Variables can be defined for the three forms of categorization: “title”, “language” and “country of origin”.

Table 1. Criteria measuring cultural diversity in the film industry, based directly on the UIS Feature Film survey

Dimensions	Variety			Balance			Disparity		
	Produced	Distributed	Consumed	Produced	Distributed	Consumed	Produced	Distributed	Consumed
Forms of categorization									
Title	Number of feature films produced nationally	Number of cinemas/ 1,000 inhabitants Admissions per cinema % of multiplexes Number of film distribution companies	Admissions per capita	-	Market share of the top 3 distribution companies		--	--	
Language	Number of different languages in which films are shot	-	-		-		-	-	
Country of origin	Number of feature films co-produced	-	-	% of feature films 100% nationally produced	% of nationally controlled distribution companies		--	--	--

Notes: - Data unavailable
-- Methodology unavailable

i) Variety: The supply side

To assess variety, the three forms of categorization “title”, “language” and “country of origin” can be used. The variety produced by title is measured by the number of feature films produced in a given country in one year. This variable indicates the size of the national production of different films. In the “language” category, we observe the number of different languages in which the films are shot and for the “country of origin,” the number of films that are co-produced.

ii) Variety: The distribution side

It is essential to cross reference this “theoretical” supply with an indicator of the accessibility (i.e. variety distributed) to the films produced. Is the variety of films available for the widest possible number of consumers or reserved for only a small elite?

Thus, the measurement of the variety supplied is completed using the average number of cinemas available for 1,000 inhabitants. The higher this number is, the greater the chances, a priori, that each film will be widely available in space (i.e. geographical coverage) and time (i.e. number of days the films are shown).

It would have been preferable to analyse the number of screens as well but this data is not available. So, in order to approximate the total number of screens available, the percentage of multiplexes provided in the UIS database is used.

The number of admissions per cinema is also taken into account to estimate the size of cinemas. No information is available on the average number of copies per film. Thus, only the number of distribution companies as a proxy for this data can be used.

iii) Variety: The consumption side

A high level of demand is a necessary condition for an effective level of diversity. A large demand maximizes the chances that each variety supplied will be consumed. Thus, variety consumed will be evaluated based on the average number of admissions per capita.

iv) Balance: The supply side

For the “title” category, the notion of balance produced is irrelevant. In the “country of origin” category, the percentage of feature films that are 100% nationally produced is proof of the existence and the strength of a domestic cinema industry. This does not mean that co-productions can not co-exist with nationally produced films in a dynamic domestic industry. Therefore, this variable must be interpreted with caution.

v) Balance: The distribution side

An equivalent indicator for distributed diversity should take into account the number of copies per film, which will help in the measurement of the degree of inequality in the competition between different films. Unfortunately, this data is not currently available for all countries⁷. Only the information on the market share of the three main distribution companies in countries is available. A priori, the more concentrated the distribution, the more difficult it is for movies produced by unknown directors to be exhibited in numerous cinemas.

In the “country of origin” category, the percentage of nationally controlled distribution companies is studied. This informs of the ability of countries to build companies that can promote their own domestic production.

4.2 Enriching the initial empirical framework

At this stage, the variables alone do not help us fully understand balance and disparity. To gain a better understanding of these elements, a new step needs to be introduced to the general methodology.

i) Balance: The consumption side

At the “title” level, we study the distribution of admissions over the total number of released movies. This indicator of consumed diversity signals whether all consumers tend to “consume” the same films or, on the contrary, whether different films have similar audiences. It indicates the concentration of demand for a narrow segment of the market and is a strong indicator of the propensity of demand to be driven by a “star system” logic. Thus, the market share of the top ten films in the total number of admissions or CR_{10} ⁸ can be calculated.

ii) Disparity: The consumption

Disparity – the last dimension used to define diversity – can be determined using two forms of categorization; “title” and “languages”.

To evaluate disparity for “titles” using the given data, one can only use the rate of similarity between the domestic top ten and the global top ten – the higher the rate, the lower the disparity.

The following is an example of how to calculate the rate of similarity. First, evaluate the general top ten for the 31 countries for 2005 and 2006 data. Next, each film is sorted on a scale of 1 to 10 depending on its rank. The highest position corresponds to the film with the largest audience. Table 2 summarizes the results.

⁷ The *Centre National du Cinéma* (CNC) supplies these data for France but they are unavailable for other countries.

⁸ It is impossible to calculate the HHI in this case because the complete set of data on the distribution of admissions by film is unavailable.

Table 2. Global top ten films

Global top ten for 2005	Origin	Language
Harry Potter and the Goblet of Fire	GBR inc/USA	English/French
Madagascar	USA	English
Star Wars Episode 3: Revenge of the Sith	USA	English
War of the Worlds	USA	English
Mr. and Mrs. Smith	USA	English
Meet the Fockers	USA	English
Kingdom of Heaven	GBR	English
Charlie and the Chocolate Factory	USA	English
Hitch	USA	English
Alexander	USA	English
Global top ten for 2006		
Pirates of the Caribbean: Dead Man's Chest	USA	English
Ice Age 2: The Meltdown	USA	English
Da Vinci Code	USA	English/French
Casino Royale	GBR inc/USA	English
Cars	USA	English
The Chronicles of Narnia: The Lion, the Witch and the Wardrobe	NZL	English
Over the Hedge	USA	English
Mission Impossible III	USA	English
Borat	USA	English
Garfield: A Tail of Two Kitties	USA	English

Note: The original language for the films Harry Potter and Da Vinci Code are English and French, however, the majority of the films were shot in English.

Source: UIS 2007 Feature Film Statistics Survey, 2009

Section 5. Language and countries – A new methodology

5.1 Diversity and language

To determine diversity in terms of language, indicators can be defined that simultaneously take into account two or three of the following dimensions: variety, balance and disparity (produced and consumed).

i) Variety and balance produced

The variety of “languages” and of “countries of origin” can only be analysed at the supply level by the number of different languages in which films are shot and the number of feature films that are co-produced, respectively (see *Section 4*).

For the original language of films (both produced and consumed), variety and balance could be assessed using the HHI (as described in *Section 2.2*).

On the supply side, the HHI is calculated using the distribution of national films produced according to the language in which they are shot. This method is not completely adequate as a film can be shot in several languages. Therefore, to evaluate the variety of languages, the HHI is an imperfect tool. To overcome this problem, an analysis was conducted on the number of different languages in which films are shot. The number of foreign languages among the total number of languages was also studied. These data reveal the degree of openness of a country to other cultures and languages. Of course, some countries may be multilingual. In which case, the number of languages is not a fully satisfactory index and has to be completed using other data. In any case, one can hypothesize that the more numerous the languages, the higher the level of diversity.

ii) Variety, balance and disparity consumed

On the consumption side, the HHI and the synthetic indexes (H_{st} and H_{bfp}) can only be calculated for the distribution of top ten films using admissions by language.

iii) Disparity in languages

To study the evolution of disparity between languages in which films are shot, a method displayed by Ginsburgh et al. (2005, 2008) can be used. Ginsburgh uses the matrix of linguistic distances among Indo-European languages proposed by Dyen et al. (1992)⁹ to analyse the choices to learn foreign languages (see *Table 3*).

⁹ Dyen et al. estimate the linguistic distances for 95 Indo-European speech varieties (i.e. languages and dialects), by comparing 200 basic meanings in those different languages. For this report, only the linguistic distances for the 20 Indo-European languages included in the top ten films are taken into account (with the exception of Norwegian which is not available in the matrix). Since Estonian, Finnish, Hungarian, Japanese, Arabic and Turkish are not Indo-European languages, they are not estimated. Given the difficulty learning these languages for Indo-European populations, the linguistic distance between these languages and others is considered to be at a maximum (i.e. equal to 1). By contrast, the distances between the non Indo-European languages are not estimated – for example, the distance between Bahasa Malaysia and Mandarin or between Korean and Japanese.

Based on lexicographic methods, linguistic distance evaluations are an objective way to analyse some aspects of disparity. The distance between two languages i and j is equal to the percentage of words in the two languages that do not descend from a common word. This distance, normalized, falls between 0 and 1. If the distance is close to 1, the two languages have completely different roots (e.g. English and Japanese), and if the distance is close to 0, the language have more similarities (e.g. Slovak and Czech).

To calculate the H_{st} and the H_{bfp} indexes, and to account for the films that were shot in more than one language, it is hypothesized here that the number of attendants is equally allocated to each language. For example, if a film was simultaneously shot in French, Italian and English and if the film reaches 300,000 tickets sold, it is assumed that 100,000 cinema tickets were sold for each language respectively¹⁰.

At the production level, the indexes are irrelevant for two reasons. First, the list of languages in which films were shot is incomplete for seven countries (Canada, Finland, Nigeria, Portugal, Slovenia, Switzerland and the Ukraine). Second, the distance between non Indo-European languages is unknown (e.g. between Yoruba and Hausa in Nigeria), which would be required to analyse the disparity between the languages in multi-language countries.

Table 3. The Dyen Matrix of Linguistic Distances

	Ck	D	Dk	E	F	G	Gr	I	Ice	Po	Pol	Ru	S	Slo	Sw
Ck	0	0.762	0.746	0.759	0.773	0.741	0.836	0.753	0.766	0.764	0.234	0.255	0.760	0.126	0.767
D	0.762	0	0.337	0.392	0.756	0.162	0.812	0.74	0.408	0.747	0.769	0.776	0.742	0.769	0.308
Dk	0.746	0.337	0	0.407	0.759	0.293	0.817	0.737	0.221	0.750	0.749	0.740	0.750	0.732	0.126
E	0.759	0.392	0.407	0	0.764	0.422	0.838	0.753	0.454	0.760	0.761	0.758	0.760	0.750	0.411
F	0.773	0.756	0.759	0.764	0	0.756	0.843	0.197	0.772	0.291	0.781	0.778	0.291	0.765	0.756
G	0.741	0.162	0.293	0.422	0.756	0	0.812	0.735	0.409	0.753	0.754	0.755	0.747	0.742	0.305
Gr	0.836	0.812	0.817	0.838	0.843	0.812	0	0.822	0.802	0.833	0.837	0.832	0.833	0.832	0.816
I	0.753	0.740	0.737	0.753	0.197	0.735	0.822	0	0.755	0.227	0.764	0.761	0.212	0.749	0.741
Ice	0.766	0.408	0.221	0.454	0.772	0.409	0.802	0.755	0	0.763	0.758	0.754	0.763	0.757	0.211
Po	0.764	0.747	0.750	0.760	0.291	0.753	0.833	0.227	0.763	0	0.776	0.773	0.126	0.760	0.742
Pol	0.234	0.769	0.749	0.761	0.781	0.754	0.837	0.764	0.758	0.776	0	0.266	0.772	0.222	0.763
Ru	0.255	0.776	0.740	0.758	0.778	0.755	0.832	0.761	0.754	0.773	0.266	0	0.769	0.259	0.754
S	0.760	0.742	0.750	0.760	0.291	0.747	0.833	0.212	0.763	0.126	0.772	0.769	0	0.756	0.747
Slo	0.126	0.769	0.732	0.750	0.765	0.742	0.832	0.749	0.757	0.760	0.222	0.259	0.756	0	0.758
Sw	0.767	0.308	0.126	0.411	0.756	0.305	0.816	0.741	0.211	0.742	0.763	0.754	0.747	0.758	0

Notes: For non Indo-European languages, Estonian, Finnish, Hungarian, Japanese, Arabic and Turkish, the linguistic distance to Indo-European languages is set at 1. Due to their linguistic remoteness, these languages are considered as far from resembling each other.

¹⁰ For the films Harry Potter and Da Vinci Code, the original languages are English and French. However, as they were shot mainly in English, only this latter language is considered in our study.

The following distances are used in this table: Bulg-E = 0,772, Bulg-F = 0,791, Rom-E = 0,773, Rom-F=0,421, Lith-E = 0,784, Lith-F = 0,779, Uk-E= 0,777, Uk-F= 0,781, Let-E = 0,803, Let-F = 0,793 and Let-Ru = 0,641. Also, these codes used to denote the following countries: Ck = Czech, Bulg = Bulgarian, D = Dutch, Dk = Danish, E = English, F = French, G = German, Gr = Greek, It = Italian, Ice = Icelandic, Let = Latvian, Lith = Lithuanian, Po = Portuguese, Pol = Polish; Rom = Romanian, Ru = Russian, S= Spanish, Slo = Slovene, Sw = Swedish, UK = Ukrainian.

In the H_{bfp} index for any given year, the average linguistic distance of titles produced is calculated as the average of the distance between a referent language (e.g. French) and each of the other languages – this distance being weighted by the market share of each language in the set of titles produced.

At the consumption level, the same methodology can be applied to the original languages of the top ten films.

5.2 Diversity and country of origin

i) Variety supplied

The number of feature films that are co-produced is an indicator of the level of variety by country of origin. Co-productions can be viewed as a means of favouring cooperation between different cultures. This form of cooperation can help countries with a less developed film industry, produce and finance innovative films. At the same time, this contributes to the circulation of films among different countries.

Co-productions provide a means for collecting the funds necessary to make a film. They help countries with few resources produce a national movie and movies from emergent countries to gain access to different markets. However, the interpretation of this criterion is ambiguous. On the one hand, co-productions increase cooperation among European countries and help Africa enhance local production. They can promote the transfer of knowledge and help some countries build a domestic film industry. On the other hand, they may also lead to a decline in diversity by watering down national or local differences as film-makers may feel inclined to present the smallest common cultural denominator among the different countries involved in the co-production in order to limit the level of commercial and industrial risk.

Thus, although this indicator is studied, caution is advised when interpreting its level and evolution.

ii) Balance supplied, distributed and consumed

Balance by country of origin can be estimated for production, distribution and consumption. A first approach – and probably a very restrictive one – consists of the study of the respective percentage of feature films that are 100% nationally produced and feature films that are co-produced. However, as the criterion used to distinguish national and foreign films is always financial, it does not truly assess diversity. A second approach consists of analysing the percentage of national versus foreign controlled distribution companies. This indicator is not very strong either as it may be a better determinant of cultural diversity than an indicator of the level of diversity.

As was the case for languages, the HHI is calculated based on the market share of the five main countries of origin. In this instance, as the number of individuals is always equal to five, the HHI is simply an indicator of balance.

The presence of a category called “others” in the database prevents the evaluation of this indicator for all the origins. In order to work on the largest number of countries possible, the allocation is studied using a three-element typology (national, US, and others). In addition, the rank of national films in the top five is introduced by country in the analysis.

5.3 A final view of the methodology

Table 4 provides a summary of the criteria and indexes used to evaluate the dimensions that Stirling points out in his study of diversity.

Table 4. A summary of the improvements to the methodology

Dimensions	Variety			Balance			Disparity		
	Produced	Distributed	Consumed	Produced	Distributed	Consumed	Produced	Distributed	Consumed
Forms of categorization									
Title	Number of feature films nationally produced	Number of cinemas/ 1,000 inhabitants Admissions per cinema % of multiplexes Number of film distribution companies	Admissions per capita	-	Market share of the top three distribution companies	Market share of top ten films in total admissions	--	--	Rate of similarity between national top ten films and the global top ten
Language	Number of different languages in which films are shot Number of foreign languages	-	Number of different languages of the top ten Number of foreign languages of the top ten (a) (b)	HHI calculated on the distribution of films produced by language	-	HHI calculated on the distribution of top ten films admissions by language (a) (b)	-	-	H _{st} and H _{bp} based on the distribution of top ten films admissions by language (b) (c)
Country of origin	Number of feature films co-produced	-	-	% of feature films 100% nationally produced	% of nationally controlled distribution companies % of foreign controlled distribution companies	HHI calculated on market share of the five main countries of origin Rank of national films in the top five by country	--	--	--

Notes: - data unavailable

-- methodology unavailable

(a) HHI calculated on the distribution of top ten film admissions by language also taking into account the variety consumed by language.

(b) H_{st} and H_{bp} based on the distribution of top ten film admissions by language also estimate the two others dimensions (i.e. variety and balance) consumed by language.

(c) Methodology available for Indo-European languages only.

Table 5 indicates the number and the list of countries used in our analysis according to the number of criteria for which the database provides answers – it cross-references the list of countries with the list of indicators that we consider relevant (*see also Appendix Table 1*). It is rather paradoxical to observe that the countries that provided the most complete list of answers to the questionnaire are not the same ones that have developed the most sophisticated statistical apparatus. For instance, the United Kingdom and Canada did not provide as many answers as expected. Moreover, some countries that are especially interested in nurturing cultural diversity did not provide a significant set of answers (especially Canada).

Table 5. Availability of data

Number of criteria	Criteria	Number of countries	Countries
21	N° films produced, admissions per capita, admissions per cinema, N° cinemas per capita, % of multiplexes, N° film distribution companies, MS of the 3 distribution companies, MS of the top ten films in total admissions, rate of similarity, N° different languages in which films are shot, N° foreign languages, N° different languages of the top ten, N° foreign languages in the top ten, HHI distribution of films produced by language, HHI distribution of top ten film admissions by languages, H_{st} on distribution of top ten film admissions by languages, H_{fbp} distribution of top ten film admissions by languages, N° films co-produced, % of 100% national feature films produced, HHI on the five mains countries of origin, MS of national, US and other countries	8	Switzerland, Romania, Mexico, Lithuania, Lebanon, Hungary, Chile, Australia
6	N° national films, admissions per capita, MS of the top ten films, rate of similarity, H_{fbp} , HHI on five main origins	14	Switzerland, Romania, Mexico, Lithuania, Lebanon, Hungary, Chile, Australia, Austria , Estonia, Finland, France, Poland, Slovakia
4	N° national films, admissions per capita, H_{fbp} , HHI on five main origins	18	Switzerland, Romania, Mexico, Lithuania, Lebanon, Hungary, Chile, Australia Austria , Estonia, Finland, France, Poland, Slovakia
3	N° national films, admissions per capita, HHI on five main origins	27	Iceland, Netherlands, Germany, Latvia Switzerland, Romania, Mexico, Lithuania, Lebanon, Hungary, Chile, Australia Austria , Estonia, Finland, France, Poland, Slovakia Iceland, Netherlands, Norway, Germany, Latvia USA, Spain, Republic of Moldova, Morocco, Malaysia, Croatia, Ukraine, Macao, China Special Administrative Region

Notes: MS = Market share
N° = Number of

Source: UIS 2007 Feature Film Statistics Survey, 2009

Section 6. Some issues and their interpretation

This section presents the results of the analysis of diversity in the cinema industry using the framework outlined earlier. Table A3 in the Appendix provides basic statistics for the 21 criteria. The results show a deep heterogeneity among countries. Note that the number of observations (i.e. countries) varies from 24 to 75 depending on the criterion selected¹¹. All the variables and criteria have been calculated as an average over the 2005-2006 period. If the value for one of the two years is ignored, an average value equalling the value obtained for the other year (2005 or 2006) is used.

6.1 Variety by titles produced, distributed and consumed

The variety produced at the film level is estimated based on the number of feature films produced nationally each year (Appendix, Table A4). Of note, film production is limited to a narrow number of countries. If a minimum of 50 films produced each year is considered to signify the existence of a national industry, it can be said that 16 out of the 66 countries analysed possess a proper cinema industry. Even among these 16 countries, the level of production is highly heterogeneous.

Overall, four groups of countries can be distinguished (see **Table 6**):

- a) As expected, in India, Nigeria and the in the United States, the number of new films released each year is very high (1,041, 872 and 699¹², respectively in 2005). However, in contrast with Hollywood and “Bollywood”, the Nigerian film industry, commonly called “Nollywood”, produces small budgets films, generally shot in digital video format in two or three weeks (for more details, see UNESCO, 2008).
- b) In Japan, China and France, the average number of new films produced is lower but greater than 200 (417, 260¹³ and 203, respectively in 2006)
- c) In Germany, Spain, Italy, the Republic of Korea and the United Kingdom, the number of national films produced is greater than 100 (174, 150, 116, 110 and 107, respectively in 2006)
- d) Lastly, in five others countries (Canada, the Russian Federation, the Philippines, Mexico and Indonesia), more than 50 (but less than 100) new films are produced each year (74, 67, 65, 64 and 60, respectively in 2006).

In contrast, 41% of the countries with data produce less than ten films and almost 23% produce less than five films per year (i.e. Azerbaijan, Belarus, Burkina Faso, Croatia, Cyprus, Kyrgyzstan, Latvia, Lithuania, China Macao Special Administrative Region, Mongolia, Mozambique, Namibia, Oman, and the Republic of Moldova).

¹¹ Only reliable responses were taken into account. When the comment associated to a criterion is specified as “magnitude nil or negligible”, it denotes that the country was eliminated for this criterion.

¹² In 2006, the number of films produced in the United States decreased to 480.

¹³ For China, the number of films produced is only available for 2005.

This ranking is certainly influenced by the size of a country (i.e. population size) and its level of development (i.e. GNP/inhabitant). Demography and economic growth are two factors that influence the vitality of cinema production. Nevertheless, there exists a historic and economic tradition – as in Nigeria – where a relatively low level of development goes hand in hand with a high level of production.

Table 6. Number of national films produced per year ^a

Number of films	Countries
≥ 600	India, Nigeria, USA
200-600	China, Japan, France
50-200	UK, Spain, Germany, Italy, Canada, Mexico, Philippines, Indonesia, Republic of Korea, Russian Federation
< 10	Armenia, Azerbaijan, Belarus, Bulgaria, Burkina Faso, Cameroon, Croatia, Cuba, Cyprus, Dominican Republic, Estonia, Iceland, Kyrgyzstan, Latvia, Lebanon, Lithuania, China Macao Special Administrative Region, Mongolia, Mozambique, Namibia, New Zealand, Oman, Republic of Moldova, Singapore, Slovakia, Slovenia, Ukraine

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006
Source: UIS 2007 Feature Film Statistics Survey, 2009

i) Diversity supplied vs. diversity consumed for the variety of national films produced

The variety distributed can be approximated by the number of cinemas per capita – more precisely, cinemas per 1,000 inhabitants (see *Appendix, Table A5*). Only 12¹⁴ countries out of 75 (16% of the countries) have a relatively high density of cinema theatres (i.e. more than 50 cinemas per 1,000 inhabitants, see **Table 7**). In 2006, Sweden ranked first as the country with the most number of cinemas per capita (129 cinemas per 1,000 inhabitants), surpassing the United States (127 cinemas). Conversely, for 40% of the countries in the sample, the accessibility to films seems very low with less than ten cinemas per 1,000 inhabitants. For countries like Cameroon, the Lao PDR, Niger and Mozambique, the numbers of cinemas is less than one per 1,000 inhabitants (0.72, 0.87, 0.36, and 0.57 cinemas, respectively in 2006).

Two other variables may be used to analyse the variety distributed:

- the number of admissions per cinema;
- the percentage of multiplexes (i.e. cinemas with eight screens or more) (see *Appendix, Tables A5 and A6*).

¹⁴ The United States, Sweden, France, Austria, Andorra, the Czech Republic, Denmark, Iceland, Luxembourg, Norway, Switzerland and Ukraine.

Table 7. Number of cinemas per capita ^a

Number of cinemas	Countries
≥ 100	Sweden, USA
50-100	France, Austria, Andorra, Czech Republic, Denmark, Iceland, Luxembourg, Norway, Switzerland, Ukraine
≤ 10	Azerbaijan, Brazil, Bulgaria, Chile, Colombia, Costa Rica, Dominican Republic, Egypt, India, Indonesia, Iran, Israel, China Macao Special Administrative Region, Malaysia, Mexico, Morocco, Namibia, Oman, Philippines, Republic of Moldova, Romania, Russian Federation, Singapore, Thailand, Tunisia Turkey, Niger, Cameroon, Mozambique, Lao People's Democratic

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009

Some countries have a low number of cinemas per inhabitant but possess a developed network of multiplexes. Therefore, a low number of cinemas per inhabitant does not necessarily translate to a low number of screens per inhabitant. Thus, it would be preferable to know the number of screens instead of the number of cinemas per capita.

In the same way, theatres with a wide capacity can compensate for the existence of a low number of cinemas. Hence, countries like Ireland, Malaysia, Singapore, India and Mexico may have a low number of cinema theatres per capita and a high level of admissions per cinema – more than 150,000 admissions per cinema for Ireland (325,000 in 2006), Malaysia (409,852 in 2006), India (359,047 in 2005), Mexico (192,373 in 2006) and more than 500,000 for Singapore (577,333 in 2006). For countries like Singapore, Ireland and Mexico, the high number of admissions per cinema is due to the development of multiplexes that represent 26%, 39% and 32%, respectively of the total number of cinemas (see **Tables 8 and 9**). For a country like Malaysia, where multiplexes represent only 15% of the total number of cinemas, the size of the theatres is one of the factors that explains the relatively high number of admissions per cinema.

Table 8. Number of admissions per cinema ^a

Number of admissions	Countries
≥ 500 000	Singapore
100 000 - 500,000[Malaysia, India, Australia, Chile, Costa Rica, Egypt, Ireland, China Macao Special Administrative Region, Mexico, Netherlands, Portugal, Republic of Moldova, Spain, UK
≤ 10 000	United Arab Emirates, Kyrgyzstan, Cuba, Azerbaijan

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009

Table 9. Percentage of cinemas with eight screens or more (multiplexes) ^a

Percentage of cinemas	Countries
≥ 30%	Ireland, Mexico, Dominican Republic, France
20-30%	Australia, Chile, Costa Rica, Singapore
5-20%	Israel, Italy, Malaysia, Brazil, Germany, Philippines, The Netherlands, Poland, Spain, Portugal, Turkey
< 5%	Croatia, Estonia, Finland, Portugal, Turkey, Latvia, Lebanon, Lithuania, Norway, Romania, Slovakia, Switzerland

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009

Analysis of the variety consumed is based on the cinema-going average (i.e. average number of admissions per inhabitant). The rate of admissions is higher than 2 for 12 out of 45 countries (26% of the countries). In 2006, Iceland (5.04 admissions per capita) was the leader within the countries sampled in terms of the cinema-going average, which puts Iceland ahead of Ireland (4.93), the United States (4.78)¹⁵ and Australia (4.00). In Singapore, India and France, the number of admissions per capita is also high (3.56, 3.32¹⁶ and 3.08, respectively in 2006) (see **Table 10 and Appendix Table A5**).

Table 10. Admissions per capita ^a

Admissions per capita	Countries
≥ 4	Iceland, Ireland, USA, Australia
3-4	Singapore, India
2-3	France, UK, Switzerland, Spain, Norway, Lebanon
2-1	Austria, Belarus, British Virgin Islands, Estonia, Finland, Germany, Hungary, Italy, China Macao Special Administrative Region, Malaysia, Mexico, Netherlands, Portugal, United Arab Emirates
< 1	Argentina, Bulgaria, Chile, Costa Rica, Colombia, Croatia, Cuba, Egypt, Indonesia, Latvia, Lithuania, Morocco, Poland, Republic of Moldova, Romania, Russian Federation, Slovakia, Thailand, Ukraine

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009

¹⁵ In 2005, data were not available for Ireland. As a result, the United States was in the lead at this date.

¹⁶ For India, admissions per capita are only available for 2005.

ii) Variety and balance distributed by title

If we consider the number of distribution companies (see **Table 11** and Appendix Table A7), four distinct groups emerge consisting of countries with contrasting cinema industry profiles. Among the 8 countries with more than 50 distribution companies, Malaysia and the Philippines have an especially high number of companies (458 and 231, respectively). Three countries have a high but less impressive number of companies (Spain, Nigeria and France with 176, 139 and 108 companies, respectively).

Interpreting this variable is not easy. On the one hand, the existence of a large number of distribution companies makes it easier for film producers to find a distributor to invest in their films. Yet, a vast dispersion could ultimately weaken the impact of distribution companies.

Table 11. Number of distribution companies ^a

Number of distribution companies	Countries
≥ 50	Malaysia, Philippines, Spain, Nigeria, France, Germany, United Kingdom, Bulgaria
20-49	Switzerland, Italy, Australia, Belgium, Brazil, Poland, Sweden, Austria, Romania, Chile, Slovenia
10-19	Denmark, Czech Republic, Mexico, Norway, Turkey, Hungary, Netherlands, Lebanon, Portugal, India, Ukraine, Finland, Egypt, Slovakia
< 10	Oman, Croatia, Belarus, Ireland, Mauritius, Morocco, Singapore, Lithuania, Rep. of Moldova, Iceland, Cyprus, Latvia, Estonia, Costa Rica, Cuba, Dominican Republic, Lao People's D.R., Namibia

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009

The market share of the three main distribution companies (see **Table 12**) sheds light on this question – in spite of some inconsistencies in the answers of three countries¹⁷, which were not included in Table 12.

Countries with 20 to 49 companies include those in Europe and South-America. Countries with the highest concentration (i.e. market share) correspond to those that are not necessarily democratic countries and have only one distribution company (Cuba, Lao PDR), and to countries that produce a small number of films (Croatia, Iceland, Estonia, Latvia, Costa Rica) (see **Table 12** and **Appendix Table A7**).

¹⁷ - Malaysia declares 387 distribution companies in 2004, 529 in 2005 and a market share of 100% for the three main companies.

- Nigeria declares 139 distribution companies in 2004, 139 in 2005 also and a market share of 100% for the three main companies.

- Namibia declares only one distribution company in 2004 and in 2005 but a market share of 90% for the three main companies.

**Table. 12. Total market share of the three main distribution companies
(in % of admissions)^a**

Total market share (% admissions)	Countries
≤ 50	France, Italy, Canada, the United States of America, Spain, the Netherlands
50-70	Japan, Slovenia, Germany, Mexico, Switzerland, Norway, Chile, Brazil, Austria, Russian Federation, United Kingdom, Australia, Lebanon, Slovakia
70-85	Ukraine, Romania, Hungary, Finland, Belarus, Portugal
≥ 85	Croatia, Iceland, Estonia, Latvia, Costa Rica, Cuba, Lao PDR
< 10	Oman, Croatia, Belarus, Ireland, Mauritius, Morocco, Singapore, Lithuania, Rep. of Moldova, Iceland, Cyprus, Latvia, Estonia, Costa Rica, Cuba, Dominican Republic, Lao People's D.R., Namibia

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009

iii) Balance and disparity by titles consumed

To compare the balance between the different countries in terms of individual films, the share in total admissions of the top ten films is calculated. Due to the lack of data, this variable can only be calculated for 24 countries at most (see *Appendix Table A8*).

The CR₁₀ criterion leads to quite contrasting observations. Between 2005-2006, the top ten films acquired on average more than 30% of admissions in all the countries sampled (see **Table 13**). However, the concentration of admissions for a small number of films appears to be higher than 40% in Chile and Poland. Conversely, it appears lower than 15% in Morocco (13.6%) and in Lebanon where admissions for the top ten films represent only 7% of the total number of admissions. Australia (26.9%), Iceland (27.7%), Malaysia (22.3%), Romania (25.5%), France (24.9%), Latvia (28.9%), Portugal (27.5%) and Switzerland (29.1%) occupy intermediate positions.

With the exception of five countries (Australia, Lebanon, Mexico, Portugal and Romania) out of the 23 countries for which the comparison is feasible between 2005 and 2006, admissions appear to be more and more concentrated on a small number of big successes. The network effect that characterizes film consumption¹⁸ – heightened by the supply strategies of the producers (i.e. investments in notoriety) and the distributors (i.e. the number of copies put into circulation) – seems to have resulted in a concentration of admissions on a limited number of films. Ultimately, this works to the detriment of cultural diversity.

¹⁸ Cultural consumption is characterized by network externalities arising from the phenomena of mimicry and social infectiousness. To reduce their uncertainty about the quality of cultural products, most consumers tend to consume the products they have heard about (from friends, press or publicity) or which have achieved the most commercial success (Kretschmer et al., 1999).

Table 13. Market share of the top ten films (in % of admissions) ^a

Market share (% of admissions)	Countries
≥ 40	Chile, Poland
30-40	Austria, Bulgaria, Costa Rica, Estonia, Finland, Germany, Hungary, Lithuania, Mexico, Netherlands, Norway,
20-30	Australia, France, Iceland, Latvia, Malaysia, Portugal, Romania, Switzerland
< 15	Morocco, Lebanon

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009

Disparity by titles is approximated by the rate of similarity between the national top ten films and the global top ten (see *Section 5 for the methodology*). This rate seems relatively high (see *Appendix Table A9*). On average, between 2005 and 2006, each country shares 5.7 titles in common with the global top ten.

Table 14 shows that:

- Among 33 top ten films – for at least one of the two years analysed – on average, 9 countries (27% of those sampled) share at least 7 titles in common with the global top ten over the 2005-2006 period. This percentage bears testimony to the existence of a globalized taste but also of the persistence of an audience ready to assert national and/or local preferences.
- National top ten are deeply different from global top ten in the countries that are culturally rather distant from the United States, like Japan (3.5 titles from 2005-2006), Malaysia (3.5), Morocco (3) and the Republic of Korea (3).
- The case in Italy seems peculiar. The rate of similarity (2) is the weakest of the sample in 2005. Yet, since data are not available for Italy in 2006, we cannot conclude that the Italian top ten is more diverse than for one of the other countries.

Table 14. Rate of similarity between top ten films and the global top ten (%) ^a

Rate of similarity (%)	Countries
≥ 70	Australia, Czech Republic, Germany, Hungary, Iceland, Latvia, The Netherlands, Romania, Sweden
[60 , 70[Austria, Bulgaria, Estonia, Ireland, Lithuania, Norway, Poland, Portugal, Slovakia,
[50 , 60[Brazil, Chile, Costa Rica, Finland, Lebanon, Mexico, Switzerland, Turkey
< 50	Denmark, France, Japan (4), Malaysia(4), Morocco (2), Republic of Korea (2), Italy (1)

Notes: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009

6.2 Variety and balance by language

i) The number of languages in which films are shot

Films can be shot in several languages. This is especially true in multi-language countries like Austria, India, Nigeria, Slovenia, Spain and Switzerland (*see Table 15*). In some cases, there can be more than five languages in a given country. **Table 16** indicates the number of foreign languages in which films are shot.

Table 15. Number of different languages in which films are shot^a

Number of languages	Countries
1	Azerbaijan, Chile, Egypt, Hungary, Israel, Kyrgyzstan, Latvia, Lebanon, China Macao Special Administrative Region, Mongolia, Mozambique, New Zealand, Oman, Ukraine
2-4	Australia, Cambodia, Cameroon, Canada, Croatia, Cyprus, Estonia, Finland, Malaysia, Morocco, Namibia, Netherlands, Portugal, Romania, Singapore, Slovakia
≥ 5	Austria, India, Nigeria, Slovenia, Spain, Switzerland

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009.

Table 16. Number of foreign languages in which films are shot^a

Number of foreign languages	Countries
0	Australia, Azerbaijan, Belarus, Canada, Chile, Croatia, Egypt, Hungary, India, Israel, Kyrgyzstan, Latvia, Lebanon, China Macao Special Administrative Region, Mongolia, Mozambique, New Zealand, Oman, Ukraine
0-2	Belarus, Cambodia, Cameroon, Cyprus, Estonia, Iceland, Lithuania, Mexico, Morocco, Netherlands, Nigeria, Rep. of Moldova, Slovakia, Slovenia
≥ 2	Austria, Finland, Portugal, Romania, Singapore, Spain, Switzerland

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009

The balance between different languages is somewhat high for Canada, Croatia, India, Morocco, Nigeria, Singapore, Slovakia, Slovenia and Switzerland. This balance concerns only two main languages in the cases of Canada and Croatia (see *Appendix Table A10*).

Variety by language is also known for the top ten films (see *Appendix Table A13*). Eight countries have exactly two languages while 26 countries have more than two. As for the number of foreign languages, 5 countries use only 1 language, 2 countries have between 1 and 2 languages, 16 have exactly 2 and 11 countries have more than 2 languages.

ii) Variety, balance and disparity consumed by language – A comparison of indexes

We can compare the average rank of each country ($[R_{2005} + R_{2006}]/2$) for the three indexes: HHI, H_{st} and H_{bfp} ¹⁹.

The ranks obtained based on the HHI resulted in the following order – from the most diverse countries to the least (see **Table 17** and *Appendix Table A14*).

Table 17. Ranks obtained on average (2005-2006) with the HHI Index

Rank (range)	Countries
1-5	Rep. of Korea, Morocco, France, Japan, Denmark
6-10	Italy, Malaysia, Hungary, Poland, Finland
11-15	Switzerland, Turkey, Lebanon, Norway, Brazil
16-20	Lithuania, Germany, Latvia, Iceland, Sweden
21-28	Portugal, Estonia, Chile, The Netherlands, Mexico, Austria, Czech Rep., Australia, Costa Rica, Ireland, Romania, Slovakia, Bulgaria

Note: The first group corresponds to the countries with an average rank between 1 and 5, the second between 6 and 10, the third between 11 and 15, the fourth between 16 and 20, and the fifth from 21 to 28. Some countries may have the same rank. Therefore, the number of countries exceeds the number of ranks.

Source: UIS 2007 Feature Film Statistics Survey, 2009

¹⁹ When the rank for one of the two years is ignored, it is hypothesized that the average rank equals the rank obtained for the other year (2005 or 2006).

The ranks obtained based on the H_{st} Index led to a quite different hierarchy among countries²⁰ (see **Table 18**).

Table 18. Ranks obtained on average (2005-2006) with the H_{st} Index

Rank (range)	Countries
1-5	Japan, Morocco, Hungary, France, Italy
6-10	Finland, Poland, Turkey, Lebanon, Denmark
11-15	Brazil, Lithuania, Switzerland, Estonia, Latvia
16-20	Portugal, Chile, Germany, Sweden, Iceland
21-25	Mexico, The Netherlands, Austria, Czech Rep., Australia, Bulgaria, Ireland, Romania,, Slovakia, Costa Rica

Source: UIS 2007 Feature Film Statistics Survey, 2009.

The ranks obtained on the basis of the H_{bfp} Index led to a different order but not one that differs greatly from the previous one²¹ (see **Table 19**). Differences in ranks are summarized in the Appendix (see **Table A14**).

Table 19. Ranks obtained on average (2005-2006) with the H_{bfp} Index

Rank (range)	Countries
1-5	Japan, Morocco, Hungary, Finland, France
6-10	Turkey, Lebanon, , Italy, Poland, Brazil
11-15	Estonia, Lithuania, Portugal, Chile, Denmark
16-20	Latvia, Mexico, Germany, Iceland, Sweden
21-25	The Netherlands, Austria, Czech Rep., Australia, Bulgaria, Ireland, Romania,, Slovakia, Costa Rica

Source: UIS 2007 Feature Film Statistics Survey, 2009.

How can we interpret the differences between the ranks obtained with the three indexes?

- The HHI led to a very different ranking than the two other indexes. It only measures the two dimensions (variety and balance) without considering disparity. Also, the rather high rank obtained by the Republic of Korea, Morocco, France, Japan and Denmark results from the balance between the different languages in film distribution but is not a sufficient measure of diversity.

²⁰ For Malaysia, Norway and the Republic of Korea, the indexes cannot be calculated as the estimation of linguistic distances is missing.

²¹ For Malaysia, the Republic of Korea and Switzerland, the methodology is not available.

- The H_{st} and the H_{bfp} indexes are much more similar. Both take into account the three dimensions of diversity – variety, balance *and* disparity. Nevertheless, the H_{bfp} leads to a more accurate view of diversity as it introduces not only the distance between languages but also the distance between the national dominant language and the others. Therefore, it provides a better estimation of the cultural openness of a country. For instance, Chile, Estonia, Finland, Lebanon, Mexico and Portugal obtained a better rank with the H_{bfp} , which is probably due to the ability of the movie distributors in these countries to present a diversified panel of films (i.e. in the terms of more distant languages) with all other factors being equal. Conversely, the position of Denmark and Italy is slightly deteriorated using this index.

6.3 Variety and balance produced and consumed by country of origin

i) The case of co-productions

Data show the low level of development of co-productions in countries with the exception of those within the European Union (see **Table 20** and *Appendix Table A15*). More precisely, France reported 95 co-productions on average between 2005 and 2006, followed by the United Kingdom (62), Germany (56), Spain (47) and Italy (28) – these countries release more than 52% of the co-productions of the sample. Conversely, 53% of the countries analysed (24 out of 45) co-produce only 58 films out of 551 (i.e. 10.5%) of the total number of the films that are co-produced. This is mainly due to the growing importance of European agreements for co-productions and to the subsidies granted by the fund Eurimages²².

Table 20. Number of films co-produced (variety produced by country of origin)^a

Number of films co-produced	Countries
≥ 50	France (1), Germany (2), UK (2), Spain (4)
20-50	China (5 in 2005), Italy, Egypt,
5-20	Austria, Canada, Czech Republic, Ireland, Romania, Sweden, Switzerland Belgium, Bulgaria, Hungary, Lebanon, Mexico, Netherlands, Portugal
≤ 5	Armenia, Australia, Burkina Faso, Cameroon, Chile, Croatia, Cuba, Cyprus, Dominican Republic, Estonia, Finland, Iceland, Israel, Kyrgyzstan, Lithuania, Morocco, New Zealand, Norway, Poland, Republic of Moldova, Singapore, Slovakia, Slovenia, Turkey

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.

Source: UIS 2007 Feature Film Statistics Survey, 2009.

²² Eurimages supports full-length feature films and animation as well as documentaries of a minimum length of 70 minutes. Because the support is for co-productions, all projects submitted must have at least two co-producers from different Member States of the Fund. The participation of the majority co-producer must not exceed 80% of the total co-production budget, and the participation of the minority co-producer must not be lower than 10%. For bilateral co-productions with a budget above 5 millions Euros, the participation of the majority co-producer must not exceed 90% of the total budget of the co-production.

The analysis of the balance between the percentage of feature films that are 100% nationally produced and the percentage of feature films that are co-produced leads to the identification of three groups of countries (see **Table 21** and *Appendix Table A15*). For nine countries in the sample, the number and share of co-productions are very low as more than 70% of the productions are 100% national. These countries release a low number of films per year. Seventeen countries occupy an intermediary position with a relatively balanced production between 100% nationally produced and co-produced films. Among them are Canada and important European film industries (France, the United Kingdom, Germany and Spain). Italy belongs to the third group of 17 countries where national films represent less than 30% of the total production.

**Table 21. Percentage of 100% national feature films produced ^a
(balance produced by country of origin)**

100% nationally produced films (%)	Countries
> 70	Croatia, Cuba, Cyprus, Iceland, Kyrgyzstan, Lebanon, Lithuania, Republic of Moldova, Slovakia
30-70	Austria, Belgium, Bulgaria, Burkina Faso, Canada, Estonia, France, Germany, Ireland, The Netherlands, New Zealand, Portugal, Romania, Spain, Sweden, Switzerland, United Kingdom
< 30	Armenia, Australia, Cameroon, Chile, Czech Republic, Dominican Republic, Finland, Hungary, Israel, Italy, Mexico, Morocco, Norway, Poland, Slovenia, Singapore, Turkey

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009.

ii) Variety and balance consumed by country of origin

Tables 22, 23, 24, 25 and *Appendix Table A16* present information that is vital to assessing cultural diversity. First, we observe that the market share of national films is less than 5% or even non-existent for a number of countries. Conversely, for four countries, the market share of domestic films exceeds 50%: Cambodia, Japan, Nigeria and the United States. The United States is not a very open country in the cultural field with a public that is supposedly not very interested in non-American films. Foreign films do show in a few cinemas but this is mostly limited to the biggest cities.

Nigeria is a “cinema exception”, as we have already noticed, with a domestic production that is probably well-suited to the audiences’ tastes. Most countries present a polarized situation with an important market share for the American cinema. The market share of American films exceeds 75% in 20 countries out of 28 (see *Table 23*). This predominance should be qualified for some countries given the ranks of domestic films in the top ten by country (see *Appendix Table A17*). For example, in Finland, France, Iceland, Morocco and Turkey, a national film reached the top spot in 2006.

Table 22. Market share of national films ^a

Market share of national films	Countries
0	British Virgin Isl., Costa Rica, Lao People's DR, China Macao Special Administrative Region, Namibia, Republic of Moldova, Saint Vincent and the Grenadines
0-5	Slovakia, Azerbaijan, Latvia, Slovenia, Austria, Ireland, Portugal, Australia, Croatia, Lithuania
5-15	Mexico, Ukraine, Malaysia, Estonia, Lebanon, Switzerland, Poland, Brazil, Netherlands, Morocco, Hungary, Norway
15-30	Spain, Finland, Germany, Sweden, Italy, Czech Republic
30-50	Denmark, France
≥ 50	Cambodia, Japan, Nigeria, United States of America

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009

Table 23. Market share of US films ^a

Market share of US films	Countries
0-30	Lao People's DR, Japan, Nigeria, Cambodia
30-50	Morocco, France, Malaysia, China Macao Special Administrative Region
50-75	Hungary, Germany, Norway, Ukraine, Spain, Portugal, Sweden, Finland, Latvia, Poland, Czech Republic, Switzerland, Denmark, Italy
75-85	Australia, Croatia, Iceland, British Virgin Isl., Lithuania, Slovakia, Chile, Estonia, Brazil, Austria, Netherlands
≥ 85	Saint Vincent and the Grenadines, Costa Rica, Namibia, Azerbaijan, Republic of Moldova, Canada, Romania, Slovenia, Mexico

Note: ^(a) The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009

The level of market shares of the “other films” (i.e. non-national and non-American) is lower than 15% in 21 countries. The openness of countries is often limited to films from the United States, resulting in the other films being under-distributed, under-programmed, and hence under-consumed. This assertion would require more substantial evidence, which could be obtained given access to the national repartition of the films of “rest of the world”. For a set of countries (i.e. Japan, Poland, Portugal, Switzerland, Latvia, Cambodia, Morocco, Lebanon, and Chile, Malaysia, China Macao Special Administrative Region, Lao PDR and Ireland), the market shares of the “other films” are over 30%. But to what extent

is this openness effective and not concentrated on only a sole foreign country? This question deserves further investigation.

Table 24. Market share of other films ^a

Market share of other films	Countries
≤ 5	Saint Vincent and the Grenadines, Costa Rica, Azerbaijan, Namibia
5-15	Canada, Romania, Mexico, Iceland, Brazil, Croatia, Germany, Republic of Moldova, Slovenia, United States of America, Australia, Czech Republic, Estonia, Netherlands, France, Hungary, Lithuania
15-30	Denmark, Slovakia, Sweden, British Virgin Isl., Spain, Finland, Norway, Italy, Austria, Nigeria, Ukraine
30-50	Japan, Poland, Portugal, Switzerland, Latvia, Cambodia, Morocco, Lebanon
≥ 50	Chile, Malaysia, China Macao Special Administrative Region, Lao People's DR, Ireland

Note: The ranking is based on the mean for the years 2005 and 2006.
Source: UIS 2007 Feature Film Statistics Survey, 2009.

Table 25 shows that the “best countries” for the HHI calculated for the variable “Market share of national, US and other films” are very diverse. Results should be interpreted cautiously as the balanced situation of the countries at the head of the ranking can hide diverse realities – from the effective openness of France to the illusory openness in Laos where the supposed “balance” is more the result of a weak domestic film production.

Table 25. Market share of national, US and other films, based on the average between 2005 and 2006 (ranked with the HHI Index)

Market share of national, US and other films	Countries
1-10	China Macao Special Administrative Region, Malaysia, Lao People's DR, Morocco, Japan, Cambodia, Lebanon, Switzerland, France, Latvia
11-20	Poland, Denmark, Sweden, Czech Republic, Finland, Spain, Norway, Ukraine, Germany, Hungary
21-30	Netherlands, Austria, Brazil, Chile, Estonia, Slovakia, Lithuania, Australia, Croatia, Iceland
31-38	Mexico, Slovenia, Canada, Romania, Republic of Moldova, United States of America, Azerbaijan, Costa Rica

Source: UIS 2007 Feature Film Statistics Survey, 2009.

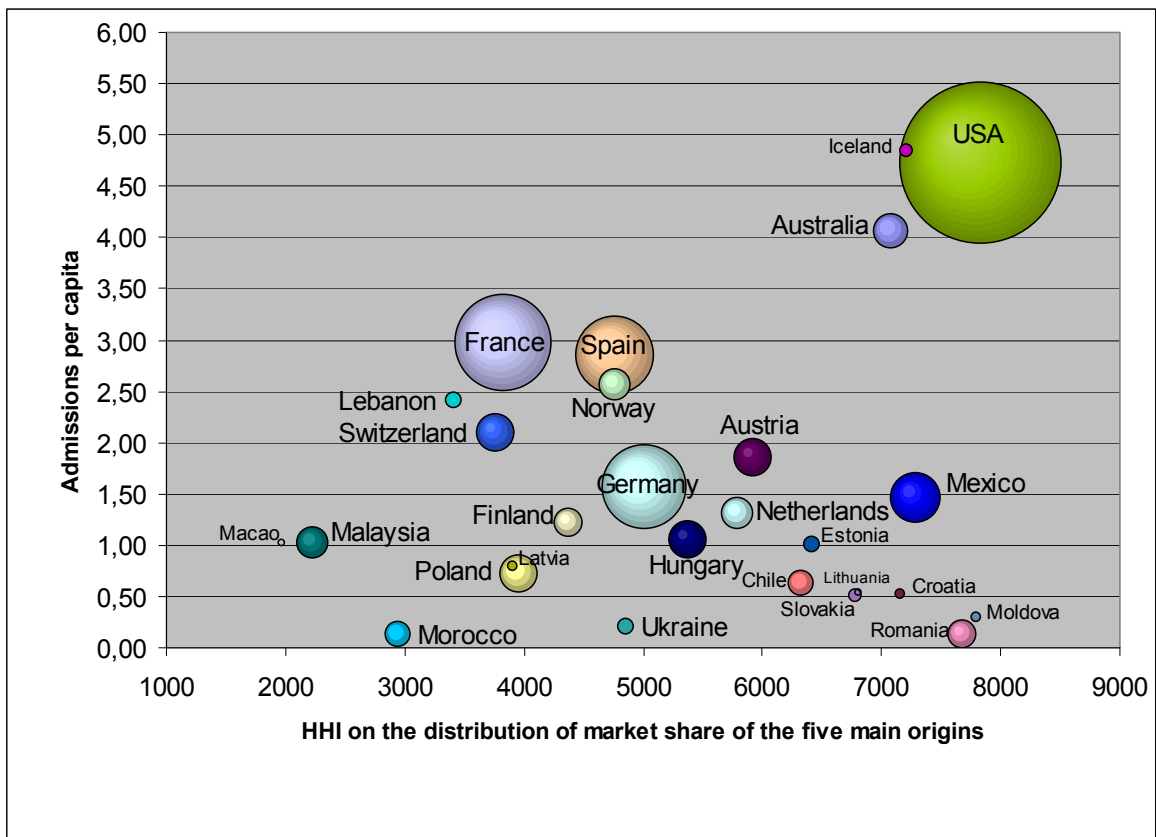
6.4 Towards a more general appreciation of cultural diversity

Finally, it is interesting to sketch out a multi-criteria classification of the countries in terms of cultural diversity in the film industry. To capture the largest sample size of countries, it was necessary to restrict the analysis to the smallest common denominator of the list of criteria, which are the following three: number of national films produced, admissions per capita and the HHI (for the five main origins). Taking these criteria into consideration equally, the ranking – based on averages over the 2005-2006 period – is as illustrated in **Table 26** and **Figure 1**.

The six most diverse countries comprise four European countries (France, Spain, Switzerland and Germany, in descending order) while one Asian country (Malaysia) and one Arabic country (Lebanon) share the fifth rank. The United States and Norway are both ranked 7th followed by Austria, Australia and Hungary (all at the 9th position).

The position of France at the top of this scale of cultural diversity must correlate to the policy, which was put into effect between the two World Wars and reinforced afterwards. It is regrettable that Canada and the United Kingdom are absent from this list due to the surprising lack of data for both countries.

Figure 1. Cultural diversity in the movie industry among 27 countries



Note: The size of the sphere which represents each country is proportional to the number of national films produced in this country.

Source: Based on UIS 2007 Feature film Statistics Survey, 2009.

Table 26. Ranking of 27 countries based on the analysis of three criteria of cultural diversity (2005-2006)

Country	Criteria		N° of national films produced		Admissions per capita		HHI (five main origins)		Three Criteria	
	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank	Mean	Rank
Australia	26.5	10	4.06	3	7 072	21	11	9		
Austria	32	9	1.86	9	5 915	16	11	9		
Chile	14.5	16	0.63	20	6 314	17	18	20		
Croatia	2	24	0.53	22	7 146	22	23	26		
Estonia	6	19	1.01	17	6 406	18	18	21		
Finland	19.5	14	1.22	13	4 375	9	12	13		
France	221.5	2	2.98	4	3 817	6	4	1		
Germany	160	3	1.58	10	5 010	13	9	4		
Hungary	36	6	1.06	14	5 370	14	11	9		
Iceland	4	22	4.86	1	7 207	23	15	17		
Latvia	3	23	0.80	18	3 900	7	16	19		
Lebanon	7.5	18	2.42	7	3 403	4	10	5		
Lithuania	1.5	26	0.54	21	6 800	20	22	24		
China, Macao SAR	1	27	1.03	15	1 959	1	14	16		
Malaysia	25.5	11	1.02	16	2 227	2	10	5		
Mexico	58.5	5	1.47	11	7 280	24	13	15		
Morocco	14	17	0.14	26	2 939	3	15	17		
Netherlands	25	12	1.32	12	5 782	15	13	14		
Norway	22.5	13	2.58	6	4 761	11	10	7		
Poland	33.5	8	0.73	19	3 956	8	12	12		
Rep of Moldova	2	24	0.30	24	7 785	26	25	27		
Romania	19	15	0.13	27	7 676	25	22	24		
Slovakia	5	21	0.52	23	6 781	19	21	23		
Spain	146	4	2.86	5	4 760	10	6	2		
Switzerland	34	7	2.11	8	3 751	5	7	3		
Ukraine	6	19	0.21	25	4 844	12	19	22		
United States	589.5	1	4.73	2	7 827	27	10	7		

Further analysis shows that the correlation rate between the number of films and the HHI is very low ($R^2 = 0.053$), while it is much higher between the number of films and the level of admissions ($R^2 = 0.55$).

Beyond the rankings, it is possible to sketch a typology including seven groups of countries, as shown in **Table 27**.

Table 27. A typology based on two criteria – Admissions and balance in consumption

Balance	Attendance		
	High	Average	Low
High	France, Switzerland, Spain, Lebanon (1)	Finland, Mexico, Malaysia, China, Macao SAR (4)	Poland, Morocco, Latvia (6)
Average	Norway, Austria, Germany (2)	Netherland, Hungary, Estonia (5)	–
Low	USA, Iceland, Australia (3)	–	Croatia, Republic of Moldova, Lithuania, Romania (7)

In spite of a strong attendance, some countries appear reluctant to practice diversity (3). Conversely, countries with a low level of attendance are relatively open (6). Some countries cumulate a high level of attendance and diversity (1) while others combine a low level of both criteria (7). A number of countries fall into an average position for both criteria (2, 4, 5). Overall, this general view helps policy-makers better understand the dimensions and criteria of diversity, and to draw on elements of comparison that can be linked to cultural traditions, economic trends and cultural policies.

Section 7. Conclusion

This theoretical and empirical report confirms the importance of the definition of reliable indexes of cultural diversity. The two main topics explored are:

- the construction of an index that improves on the Stirling index
- an international comparison of diversity in the film industry based on the UNESCO database and on an original methodology.

This section highlights some proposals for improving the database. This report stresses the importance of partial and synthetic indexes. It is important to note the evolution of cultural diversity with time and cultural policies. It is also necessary to reiterate that caution be used when interpreting the results stated here – understanding the scope of cultural diversity requires taking into account both historical and economic contexts.

Further research to investigate the link between the variables of diversity and the variables of the democratization of consumption could be of interest. Additional remarks concern the two related topics of public access to and the impact of new technologies on cinema.

7.1 Proposals for improvements to the database

Three main suggestions have emerged from this report:

1. As seen previously, the variety produced by title can be measured by the number of national feature films produced in a given country over the course of one year. Although this variable indicates the size of the total production of national films, it would also be interesting to know the number of different films (foreign and domestic) that are shown in cinema theatres. Thanks to a winner-takes-all phenomenon, a non-negligible number of films produced is never even shown in theatres. Thus, supplied variety differs from produced variety. Consumed variety should be captured through additional specific variables, such as price, categories of films and degree of urbanization.
2. The variety consumed – evaluated based on average admissions per cinema – should be supplemented with information on the videocassette and DVD market²³ as well as on films on TV. The consumption of films on the internet is also likely to grow – to the detriment of cinema and traditional TV. This trend will depend on how equipped households are with new technologies. It may be interesting to collect detailed data on this phenomenon.
3. Evaluating disparity will require more criteria than “languages” alone. Some of these criteria, in spite of the difficulties linked to this kind of classification, can rely on the type of film produced (i.e. comedies, dramas, fantastic, etc.) and/or on the “identity of the film-maker” (novice or experienced professional, country of origin, genre, age, etc.). Post-production criteria, such as the success and the quality of films – measured not only by attendance but also by awards garnered and by the judgement of experts – can shed light on the “quality potential” of a domestic cinema industry.

²³ Information on this topic is requested in the UIS Feature Film Survey but the responses were unreliable.

7.2 Partial and synthetic indexes

It is important to be able to compare the level of diversity between two countries or between two periods. A synthetic index harbours the advantage of enabling these comparisons. However, one should keep in mind the limitations when interpreting a positive or negative evolution. Firstly, it is very difficult to capture the reality of the third dimension of diversity – disparity. As noted previously, disparity involves many elements, and “languages” or “country of origin” alone cannot summarize nor represent the wide scope of those elements. Secondly, with synthetic indexes, the rise of one criterion can compensate for the decline of another one, which allows one to disregard the determinants of the evolution observed. Thus, the objectives and tools of a policy in favour of diversity cannot be defined.

Therefore, analyses are “condemned” to be modest and build partial but significant theoretical and empirical approaches that combine data (i.e. on the number of films or the number of films released by new film-makers) with more sophisticated indexes such as the ones presented in this report.

i) The risk associated with presenting contradictory interpretations

Some dimensions of diversity can increase while others may diminish. The number of films released may increase drastically and this growth can go hand in hand with a decrease in the diversity of genres, in the level of artistic innovation or in the propensity to employ lesser-known actors and film makers as opposed to movie stars and well-known film makers. In the same way, balance can be evaluated as almost perfect despite a low level of national film-production.

Some variables are difficult to interpret, such as the market share of national distribution companies. If this market share is a necessary condition to achieve a satisfying level of distribution for national films, it is thus not a sufficient condition – national companies may be less interested in national films and more interested in distributing films produced in the United States due to popular demand. Most surveys reveal that global cinema is American and that this consumption is generally shared between American and national films while the “rest of the world” benefits from a very small market share (Cohen and Verdier, 2008). On the other hand, the existence of only national distribution companies may signal the existence of a bureaucratic industry, owned by public authorities with a very low capacity for artistic and cultural innovation and freedom. Conversely, it can bear testimony to the will to form a strong policy favouring the development of a national industry. Ultimately, in the cinema industry, distribution activity dictates economic power.

As previously discussed, Appendix Table A16 shows that many countries display a market share of national companies that is greater than 90%. In Belarus, Bulgaria, Costa Rica, Croatia, Cuba, the Dominican Republic, Lao PDR, Slovenia, Ukraine, Mauritius, the Republic of Moldova, Malaysia and Singapore, this phenomenon is probably due to the political state organization or the inherited political organization. In most countries on this list, cinema is still considered a subversive media that has to be controlled. In India and Nigeria, the same phenomenon (i.e. national companies that hold large market shares) is due to the strength of national production and the specific status of cinema consumption despite a low real purchasing power. In Germany, Iceland, the Netherlands, Spain and Switzerland, it is, to some extent, the result of the cultural policies that support national companies or the privatization of the cinema industry.

ii) The variation in hierarchies

Comparison of the ranks assigned to different countries depending on their index score and/or their fulfilment of certain criteria shows that diversity cannot be considered a singular concept. As Flores (2006) demonstrates, the concept in itself is diverse and complex.

7.3 Observing the evolution of cultural diversity with time

It is important to note that the data in the UNESCO database covers only two years. The average value of variables for both years was used in this report, which does not take into account the evolution between 2005 and 2006. Thus, caution is advised when interpreting changes seen in data. Cultural products are prototype goods and a single blockbuster can explain an atypical rise in consumption, as in the emblematic cases of *Titanic* (for the United States and many other countries), *La Chute de l'Empire américain* (for Canada), *Les Ch'tis* (for France), etc. To more accurately capture the evolution of cultural diversity with time, a longer period of observation is needed.

7.4 The correlation between the level of indexes and cultural policies

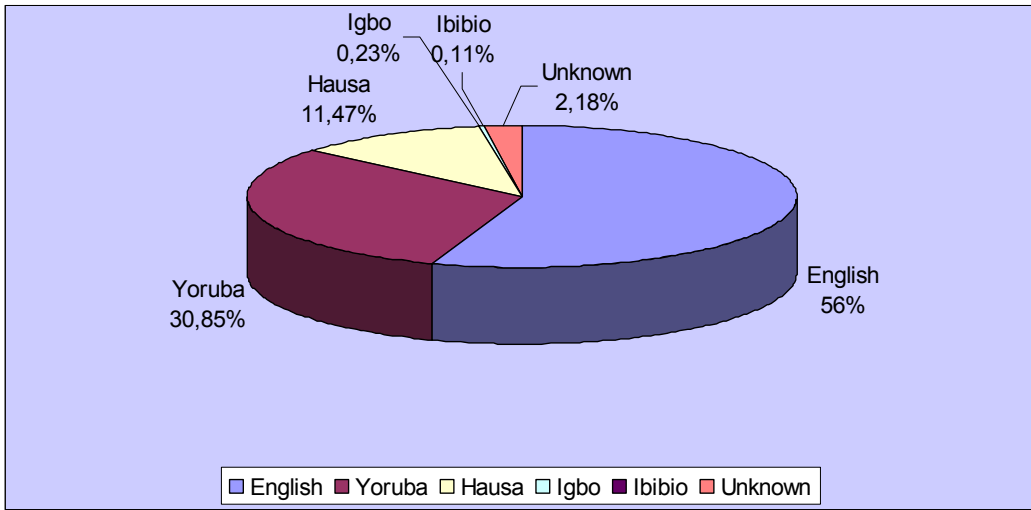
The correlation between policies and diversity remains difficult to define. To gain a better understanding of this link, a study of the evolution of diversity when a change in policy occurs is needed – with all other things being equal of course. A continuous collection of information on cultural policies is needed to observe the evolution of national cultural policies so that analyses can be done when diversity is in question. One example of a policy that may affect cultural diversity and thus should be analysed is the adoption of retail price maintenance (RPM) for books in Mexico and Switzerland, which will probably result in the promotion of less-popular books (i.e. books that target a narrow readership). In the same way, recent changes in the “chronologie des médias²⁴” in France can affect the market share of cinemas versus TV and thus, impact the level of diversity.

7.5 The limits of comparisons – Can the same indexes be used in different cultural contexts?

Some countries display very strong peculiarities. For example, the history and legacy of an existing diversity in a country can explain the different languages spoken in the country and used in film. This is the case in Nigeria (see **Figure 2**) as well as India (see **Figure 3**). An intrinsic diversity can coexist with a low degree of openness to other non-national cultures. In other terms, the internal diversity creates an absence of interest for what we can call extrinsic diversity.

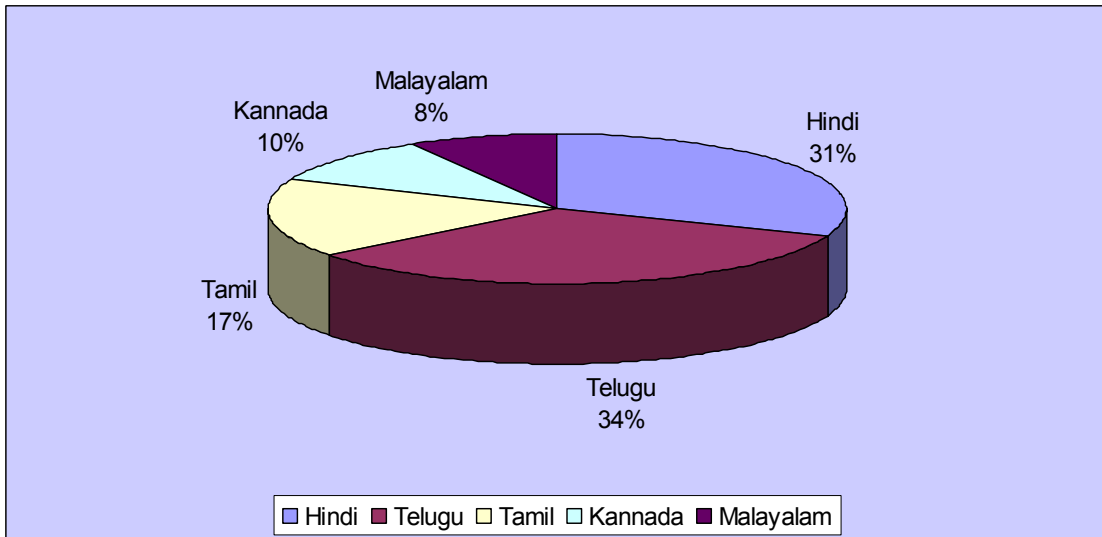
²⁴ Since 1983, regulations have imposed a delay (called “chronology of media”) between the programming of a film in theatres and its broadcasting on traditional TV channels, coded TV channels, videos and “pay per view” TV.

**Figure 2. Diversity in production languages for Nigerian films, 2005
(number of films produced: 872)**



Source: Based on UIS-UNESCO, 2009.

**Figure 3. Diversity in production languages for Indian films, 2005
(number of films produced: 1041)**



Source: Based on UIS-UNESCO, 2009.

More generally speaking, context is essential to understanding the scope of diversity. Assessing criteria alone does not always convey the reality of a situation, depending on the national or even local culture.

7.6 Correlation between variables of diversity and variables of democratization of consumption

In terms of strengthening the initial methodology proposed by Stirling, one of the main contributing aspects of the study here is the introduction of a distinction between the respective notions of diversity supplied, diversity distributed and diversity consumed. Diversity is not “naturally” desired as some may assume. As many studies show (Benhamou, 2002), consumers can exhibit reluctance when faced with diversity (Schooler, Ohlsson et Brooks, 1993). The diversity of cultural consumption depends on many factors – especially on long-term experience. A strong effort in favour of consumption is never immediately efficient – learning and access are also crucial elements.

i) Accessing cultural services (cinema theatres)

Diversity is not the only desirable outcome per se. The opportunity to consume is a necessary condition for the development of cultural diversity. Cinemas must be numerous, well-dispersed across the whole territory (i.e. not limited to the biggest cities only) and not too expensive as to prohibit the public from accessing this source of leisure and culture.

ii) Access to other media (video, VOD, TV, catch-up TV, internet, cellular phones)

New media are a tool that can broaden access to a variety of cultural products. This report does not fully address this topic but it is important to be mindful that the number of cinemas alone does not fully reflect access to cinema. Further data are needed to shed light on this important aspect of access.

References

- Atkinson, D. and Y. Bernier, 2000, *Les arguments en faveur de la préservation de la diversité culturelle*, 2nd Concertation intergouvernementale, Paris, UNESCO.
- Benhamou F., 2002, *L'Economie du star system*, Paris : Odile Jacob.
- Benhamou F. and S. Peltier, 2007, How Should Cultural Diversity be Measured? An Application using the French Publishing Industry, *Journal of Cultural Economics*, 31(2): 85-107.
- Benhamou F. and S. Peltier, 2008, La mesure de la diversité culturelle, in X. Greffe et N. Sonnac (eds.), *Culture Web*, Paris: Editions Dalloz.
- Benhamou F., Flôres R. and S. Peltier, 2008, The Use of Diversity in Cultural Economics: Theoretical and Applied Considerations, Conference Models of Cultural Dynamics and Diversity, Paris School of Economics, 11 - 13 December.
- Benhamou F., Flôres R. and S. Peltier, 2009, Diversity analysis in cultural economics: Theoretical and empirical considerations, 10th Conference on Art and Culture Management, Dallas, USA, 28 June- 2 July.
- Bennett T., 2001, *Differing diversities. Transversal study on the theme of cultural policy and cultural diversity*, Cultural Policy and Action Department, Council of Europe Publishing,.
- Boudon R., 1984, *La place du désordre*, Paris: PUF (Quadrige).
- Bowness Sir A., 1989, *The Conditions of Success*, London: Thames & Hudson.
- Caves R.E., 2000, *Creative Industries*, Cambridge: Harvard University Press.
- Cohen D. and T. Verdier, 2008, *La mondialisation immatérielle*, Conseil d'analyse économique, Rapport (76), Paris: La Documentation française.
- Cowen T., 2002, *Creative Destruction*, Princeton: Princeton University Press.
- Dyen I., Kruskal J.B. and P. Black, 1992, An Indo-European Classification: a Lexicostatistical Experiment, *Transactions of the American Philosophical Society*, 82(5), Philadelphia: American Philosophical Society.
- Flôres R.G., 2006, The diversity of diversity: further methodological considerations on the use of the concept in cultural economics. *Ensaïos Econômicos* n° 626, Rio de Janeiro: EPGE/Fundação Getulio Vargas.
- Geroski P., 1989, The choice between diversity and scale. In 1992: Myths and realities (ed. E. Davis), pp. 29–45. London, UK: Centre for Business Strategy, London Business School.
- Gillett S., 2003, In praise of policy diversity, position paper for OII Broadband Forum, Oxford, UK: Oxford Internet Institute.
- Ginsburgh, V., 2005, Languages, Genes, and Cultures, *Journal of Cultural Economics*, 29: 1-17.
- Ginsburgh V. and S. Weyers, 2008, Economics of Literary Translation. A Simple Theory and Evidence, *Nota di Lavoro*, Fondazione Eni Enrico Mattei.
- Gorman W. M., 1953, Community preference fields, *Econometrica*, 21: 63-80.

- Gorman W. M., 1956, A possible procedure for analysing quality differentials in the egg market, Mimeo, Ames, Iowa State College.
- Gorman W. M., 1961, On a class of preference fields, *Metroeconomica*, 13: 53-6.
- Grabher G. and D. Stark, 1997, Organizing diversity: evolutionary theory, network analysis and postsocialism. *Reg. Stud.*, 31: 533–544.
- Kauffman S., 1993, *The Origins of order: self organization and selection in evolution*. New York, NY: Oxford University Press.
- Kretschmer M., Klimis G.M. and C.J. Choi, 1999, Increasing returns and social contagion in cultural industries, *British Journal of Management*, 10: S61-S72.
- Lancaster K. J., 1966, A new approach to consumer theory, *Journal of Political Economy*, 74: 132-57.
- Maynard Smith J., 1989, Trees, bundles or nets? *Trends Ecol. Evol.*, 4: 302–304.
- Nowotny H., Scott, P. and M. Gibbons, 2001, *Re-thinking science: knowledge and the public in an age of uncertainty*, London, UK: Polity Press.
- Odum E., 1953, *Fundamentals of Ecology*, Philadelphia, PA: Saunders.
- Patil G.P. and C. Taillie, 1982, Diversity as a Concept and its Measurement, *Journal of American Statistical Association*, 77 (379): 548-561.
- Rao C. R., 1982, Diversity: its measurement, decomposition, apportionment and analysis, *Sankhya*, 44 (1), Series A: 1-22.
- Rosen S., 2004, *Markets and Diversity*, Cambridge: Harvard University Press.
- Runnegar B., 1987, Rates and modes of evolution in the Mollusca. In Rates of evolution (eds M. Campbell & R. May), London, UK: Allen and Unwin.
- Shannon C.E., 1948, A mathematical theory of communication, *Bell Systems Technical Journal*, 27(3-4): 379-423, 623-56.
- Schooler J.W., Ohlsson S. and Brooks K., 1993, "Thoughts Beyond Words: When Language Overshadows Insight", *Journal of Experimental Psychology*, 122 (2): 166-183.
- Shevchenko, E., Talapin, D., Kotov, N., O'Brien, S. and C. Murray, 2006, Structural diversity in binary nanoparticle superlattices. *Nature*, 439: 55–59.
- Steiner P.O., 1952, "Program Patterns and Preferences, and the Workability of Competition in Radio Broadcasting", *Quarterly Journal of Economics*, 66: 194-223.
- Stirling A., 1999, On the economics and analysis of diversity, Mimeo, *SPRU Electronic Working Paper*, n. 28.
- Stirling A., 2007, A general framework for analysing diversity, in science, technology and society, *J. R. Soc. Interface*, 4: 707–719.
- UNESCO-UIS, 2009, Analyse sur l'Enquête internationale de l'ISU sur les statistiques de films de long métrage, note d'information N° 1, Institut de statistique de l'UNESCO, Montréal, Canada.
- Van der Wurff R. and J. Van Cuilenburg, 2001, Impact of Moderate and Ruinous Competition on Diversity: the Dutch Television Market, *Journal of Media Economics*, 14: 213-229.

Van der Wurff R., 2004, Supplying and Viewing Diversity : The Role of Competition and Viewer Choice in Dutch Broadcasting, *European Journal of Communication*, 19, p. 215-237.

Weitzman M.L., 1992, On diversity, *Quarterly Journal of Economics*, 107(2): 363-406.

Weitzman, M.L., 1993, What to preserve? An application of diversity to crane conservation, *Quarterly Journal of Economics*, 108(1): 157-83.

Appendix

All data presented in the following tables originate from the 2009 UIS Feature Film Statistics Database.

Table A1. Response rate (in %) by number of criteria, 2005-2006

Country	All criteria (11 total)	Six criteria	Four criteria	Three criteria
Armenia	14	17	25	33
Andorra	5	0	0	0
Argentina	14	17	25	33
Australia	100	100	100	100
Austria	95	100	100	100
Azerbaijan	38	33	50	67
Bahrain	5	0	0	0
Belarus	43	33	50	67
Belgium	24	17	25	33
Brazil	62	67	75	67
British Virgin Isl.	33	33	50	33
Bulgaria	57	67	50	67
Burkina Faso	10	0	0	0
Cambodia	24	17	25	33
Cameroon	33	17	25	33
Canada	48	33	50	67
Chile	100	100	100	100
China	14	17	25	33
Colombia	10	17	25	33
Costa Rica	71	83	75	67
Croatia	67	50	75	100
Cuba	38	33	50	67
Cyprus	38	17	25	33
Czech Republic	62	67	75	67
Denmark	57	67	75	67
Dominican Republic	29	17	25	33
Egypt	38	17	25	33
Estonia	95	100	100	100
Finland	95	100	100	100
France	86	100	100	100
Germany	86	100	100	100
Hungary	100	100	100	100
Iceland	95	100	100	100
India	38	33	50	67
Indonesia	29	33	50	67
Iran, Islamic Rep of	5	0	0	0
Ireland	71	67	75	67
Israel	38	17	25	33
Italy	76	67	75	67
Japan	52	67	75	67
Kyrgyzstan	38	17	25	33
Lao People's D.R	33	33	25	33
Latvia	86	83	100	100
Lebanon	100	100	100	100
Lithuania	100	100	100	100
Luxembourg	5	0	0	0
China, Macao SAR	43	50	75	100
Madagascar	5	17	25	33
Malaysia	81	83	75	100
Mauritius	14	0	0	0
Mexico	100	100	100	100
Mongolia	19	17	25	33
Morocco	81	83	75	100
Mozambique	29	17	25	33
Namibia	38	33	25	33
Netherlands	95	83	100	100
New Zealand	29	17	25	33
Niger	5	0	0	0
Nigeria	38	33	25	33

Table A1. Response rate (in %) according by number of criteria, 2005-2006 (continued)

Country	All criteria (11 total)	Six criteria	Four criteria	Three criteria
Norway	81	83	83	100
Oman	29	17	25	33
Philippines	19	17	25	33
Poland	81	100	100	100
Portugal	95	83	75	67
Republic of Korea	24	33	25	33
Republic of Moldova	52	50	75	100
Romania	100	100	100	100
Russian Federation	24	33	50	67
Saint Vincent and the Grenadines	10	0	0	0
Singapore	52	33	50	67
Slovakia	100	100	100	100
Slovenia	57	33	50	67
Spain	67	50	75	100
Sweden	67	83	75	67
Switzerland	100	100	100	100
Thailand	19	33	50	67
Tunisia	10	0	0	0
Turkey	57	50	50	33
Ukraine	52	50	75	100
United Arab Emirates	10	17	25	33
United Kingdom	38	33	50	67
United States	33	50	75	100

Notes: Six criteria: number of national films produced, admissions per capita, market share of the top ten films, rate of similarity between national top ten films and the global top ten, H_{bfp} , HHI on the market share of the five main origins.

Four criteria: number of national films produced, admissions per capita, H_{bfp} , HHI on the market share of the five main origins.

Three criteria: number of national films produced, admissions per capita, HHI on the market share of the five main origins.

Table A2. Availability of data by country and criteria

Country	Criteria																					
	Number of films produced	Admissions per capita	Admissions per cinema	Number of cinemas per capita	% of multiplexes	Number of film distributions companies	Market share of the 3 distribution companies	Market share of the top ten films in total admissions	Rate of similarity	Number of different languages in which films are shot	Number of foreign languages	Number of different language of the top ten	Number of foreign languages in the top ten	HHI distribution of films produced by language	HHI distribution of top ten films admissions by languages	Hst on distribution of top ten films admissions by languages	Hfbp distribution of top ten films admissions by languages	Number of films coproduced	% of 100% national feature films produced	HHI on the five mains countries of origin	Analysis of the market share of national, US, others countries	
Armenia	*																	*	*			
Andorra				*																		
Argentina		*	*	*																		
Australia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Austria	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Azerbaijan	*		*	*					*	*				*						*	*	
Bahrain				*																		
Belarus	*	*	*	*		*	*		*	*				*								
Belgium	*			*		*												*	*			
Brazil	*			*	*	*	*	*		*	*				*	*	*				*	*
British Virgin Islands		*	*	*																	*	
Bulgaria	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
Burkina Faso	*																	*	*			
Cambodia									*	*				*						*	*	
Cameroon	*			*					*	*				*				*	*			
Canada	*			*			*		*	*				*				*	*	*	*	
Chile	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	
China	*			*														*				
Colombia		*		*																		
Costa Rica		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*			*	*	
Croatia	*	*	*	*	*	*	*		*	*				*				*	*	*	*	
Cuba	*	*	*	*		*	*											*	*			
Cyprus	*			*		*			*	*				*				*	*			
Czech Republic	*			*		*		*		*	*			*	*	*	*	*	*	*	*	
Denmark	*			*		*	*	*	*	*	*	*	*	*	*	*	*			*	*	

Table A2. Availability of data by country and criteria (continued)

Country	Criteria																				
	Number of films produced	Admissions per capita	Admissions per cinema	Number of cinemas per capita	% of multiplexes	Number of film distributions companies	Market share of the 3 distribution companies	Market share of the top ten films in total admissions	Rate of similarity	Number of different languages in which films are shot	Number of foreign languages	Number of different language of the top ten	Number of foreign languages in the top ten	HHI distribution of films produced by language	HHI distribution of top ten films admissions by languages	Hst on distribution of top ten films admissions by languages	Hfbp distribution of top ten films admissions by languages	Number of films coproduced	% of national feature films produced	HHI on the five mains countries of origin	Analysis of the market share of national, US, others countries
Dominican Republic	*			*	*	*												*	*		
Egypt		*	*	*		*			*	*				*				*			
Estonia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Finland	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
France	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Germany	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Hungary	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Iceland	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
India	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Indonesia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Iran, Islamic Republic of				*																	
Ireland	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Israel	*			*	*				*	*				*				*	*		
Italy	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Japan	*			*			*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Kyrgyzstan	*		*	*					*	*				*				*	*		
Lao People's D. R.			*	*		*	*													*	*
Latvia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lebanon	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Lithuania	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Luxembourg				*																	
China, Macao SAR	*	*	*	*					*	*				*						*	*

Table A2. Availability of data by country and criteria (continued)

Country	Criteria																				
	Number of films produced	Admissions per capita	Admissions per cinema	Number of cinemas per capita	% of multiplexes	Number of film distributions companies	Market share of the 3 distribution companies	Market share of the top ten films in total admissions	Rate of similarity	Number of different languages in which films are shot	Number of foreign languages	Number of different language of the top ten	Number of foreign languages in the top ten	HHI distribution of films produced by language	HHI distribution of top ten films admissions by languages	Hst on distribution of top ten films admissions by languages	Hfbp distribution of top ten films admissions by languages	Number of films coproduced	% of 100% national feature films produced	HHI on the five mains countries of origin	Analysis of the market share of national, US, others countries
Madagascar	*																				
Malaysia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*					*	*
Mauritius				*		*															
Mexico	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mongolia	*									*	*			*							
Morocco	*	*	*	*		*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Mozambique	*		*	*						*	*			*							
Namibia	*			*		*	*			*	*			*							
Netherlands	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
New Zealand	*									*	*			*				*	*		
Niger				*																	
Nigeria	*			*		*	*			*	*			*							
Norway	*	*	*	*	*	*	*	*	*			*	*		*	*		*	*	*	*
Oman	*			*		*				*	*			*							
Philippines	*			*	*	*															
Poland	*	*	*	*	*	*	*	*	*			*	*		*	*	*	*	*	*	*
Portugal	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Republic of Korea	*								*			*	*		*						
Republic of Moldova	*	*	*	*		*				*	*			*				*		*	*
Romania	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Russian Federation	*	*	*	*		*															

Table A2. Availability of data by country and criteria (continued)

Country	Criteria																				
	Number of films produced	Admissions per capita	Admissions per cinema	Number of cinemas per capita	% of multiplexes	Number of film distributions companies	Market share of the 3 distribution companies	Market share of the top ten films in total admissions	Rate of similarity	Number of different languages in which films are shot	Number of foreign languages	Number of different language of the top ten	Number of foreign languages in the top ten	HHI distribution of films produced by language	HHI distribution of top ten films admissions by languages	Hst on distribution of top ten films admissions by languages	Hfbp distribution of top ten films admissions by languages	Number of films coproduced	% of 100% national feature films produced	HHI on the five mains countries of origin	Analysis of the market share of national, US, others countries
St Vincent Grenadines				*																	*
Singapore	*	*	*	*	*	*				*	*			*				*	*		*
Slovakia	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Slovenia	*			*	*	*	*			*	*			*				*	*	*	*
Spain	*	*	*	*	*	*	*			*	*			*				*	*	*	*
Sweden	*			*		*		*				*	*		*	*	*	*	*	*	*
Switzerland	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*	*
Thailand	*	*	*	*																	
Tunisia			*	*																	
Turkey	*			*	*	*		*				*	*		*	*	*	*	*	*	*
Ukraine	*	*	*	*		*	*			*	*			*						*	*
United Arab Emirates		*		*																	
United Kingdom	*	*	*	*		*	*											*	*		
United States	*	*	*	*			*													*	*
Number of answers	66	45	48	75	32	51	37	24	33	41	41	33	33	41	33	31	29	45	43	38	43
Total number of countries	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208	208
Response Ratio (%)	31.25	21.63	23.08	36.06	15.38	25.00	17.31	12.50	16.35	19.71	19.71	16.35	16.35	19.71	16.35	14.90	14.42	22.12	20.67	18.27	20.67

Table A3. Summary of the data

Criteria	Number of observations	Mean	Median	Min.	Max	
Number of films produced	66	77.02	20.75	1.00	1066.00	
Admissions per capita	45	1.47	1.02	0.13	4.93	
Admissions per cinema	48	100209.38	48227.22	3319.68	578741.67	
Number of cinemas per capita	75	24.29	14.02	0.37	128.99	
% of multiplexes	32	11.69	6.95	0.91	39.06	
Number of film distributions companies	51	37.40	14.00	1.00	458.00	
Market share of the 3 distribution companies	37	69.57	69.00	33.45	100.00	
Market share of the top ten films in total admissions	24	30.54	31.26	7.07	41.28	
Rate of similarity of the top ten films	33	57.12	60.00	20.00	80.00	
Number of different languages in which films are shot ^(a)	41	2.44	2.00	1.00	6.00	
Number of foreign languages ^(a)	41	0.80	0.50	0.00	4.00	
Number of different languages of the top ten	33	2.82	2.50	2.00	5.50	
Number of foreign languages in the top ten	33	2.11	2.00	1.00	4.50	
HHI distribution of films produced by language	41	7365.49	7500.00	1489.32	10000.00	
HHI on the distribution of top ten films admissions by languages	33	7718	8166.70	3079.5	10000	
Hst on the on the distribution of top ten films admissions by languages	30	728.23	541.85	0	2473.99	
Hfbp on the distribution of top ten films admissions by languages	29	603.48	343.87	0	2473.99	
Number of films coproduced	45	12.24	4.00	1.00	95.00	
Percent of 100% national feature films produced	43	43.16	34.78	9.09	100.00	
HHI on the five mains countries of origin	38	5421.30	5190.13	1958.65	9636.18	
Market share of national, US and other countries	National	45	13.55	6.00	0.00	88.42
	US	43	65.26	67.00	10.00	100.00
	Others countries	44	23.65	16.82	0.00	97.17

Note: ^(a) (a) For this variable, the value of “at least x languages”, has been reduced to the singular value “x” in order to better quantify this value.

Table A4. Number of films produced in each country (variety produced by title)

Country	2005	2006	Mean 2005-2006	Rank 2005-2006
Armenia	10	8	9.00	41
Australia	25	28	26.50	28
Austria	30	34	32.00	25
Azerbaijan	2	3	2.50	56
Belarus	2	2	2.00	57
Belgium	na	10	10.00	39
Brazil	24	27	25.50	29
Bulgaria	9	10	9.50	40
Burkina Faso	4	5	4.50	51
Cameroon	4	7	5.50	48
Canada	52	74	63.00	14
Chile	18	11	14.50	36
China	260	na	260.00	5
Croatia	na	2	2.00	57
Cuba	4	6	5.00	49
Cyprus	na	4	4.00	53
Czech Republic	na	35	35.00	21
Denmark	41	34	37.50	19
Dominican Republic	3	9	6.00	45
Estonia	5	7	6.00	45
Finland	20	19	19.50	34
France	240	203	221.50	6
Germany	146	174	160.00	7
Hungary	26	46	36.00	20
Iceland	2	6	4.00	53
India	1041	1091	1066.00	1
Indonesia	na	60	60.00	15
Ireland	10	19	14.50	36
Israel	22	22	22.00	33
Italy	98	116	107.00	9
Japan	356	417	386.50	4
Kyrgyzstan	na	1	1.00	61
Latvia	4	2	3.00	55
Lebanon	7	8	7.50	43
Lithuania	2	1	1.50	60
China, Macao SAR	na	1	1.00	61
Madagascar	26	40	33.00	24
Malaysia	23	28	25.50	29
Mexico	53	64	58.50	16
Mongolia	1	na	1.00	61
Morocco	16	12	14.00	38
Mozambique	na	1	1.00	61
Namibia	1	na	1.00	61
Netherlands	29	21	25.00	31
New Zealand	3	6	4.50	51
Nigeria	872	na	872.00	2
Norway	24	21	22.50	32
Oman	na	1	1.00	61
Philippines	84	65	74.50	13
Poland	30	37	33.50	23
Portugal	22	32	27.00	27
Republic of Korea	87	110	98.50	11
Republic of Moldova	1	3	2.00	57
Romania	20	18	19.00	35
Russian Federation	86	67	76.50	12
Singapore	8	10	9.00	41
Slovakia	7	3	5.00	49
Slovenia	10	3	6.50	44
Spain	142	150	146.00	8
Sweden	na	46	46.00	17
Switzerland	30	38	34.00	22

Table A4. Number of films produced in each country (variety produced by title) (continued)

Country	2005	2006	Mean 2005-2006	Rank 2005-2006
Thailand	na	42	42.00	18
Turkey	28	35	31.50	26
Ukraine	5	7	6.00	45
United Kingdom	106	107	106.50	10
USA	699	480	589.50	3

Note: na: not available

Table A5. Admissions per capita (variety consumed by title), number of cinemas per capita and number of admissions per cinema (variety distributed by title)

Country	Admissions per capita				Number of cinemas per capita (cinema per 1,000 inhabitants)				Number of admissions per cinema			
	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06	Rank 05-06
Andorra	cna	cna	cna	cna	76.39	73.87	75.13	4	na	na	na	na
Argentina	cna	0.90	0.90	27	25.24	24.99	25.12	26	na	36196.32	36196.32	33
Australia	4.12	4.00	4.06	4	25.55	24.06	24.81	27	161079.00	166396.76	163737.88	9
Austria	1.82	1.89	1.86	13	-	69.89	69.89	21	-	27101.34	27101.34	37
Azerbaijan	-	-	na	na	2.51	2.26	2.39	67	5496.05	6163.68	5829.87	45
Bahrain	cna	cna	cna	cna	na	35.19	35.19	20	cna	cna	cna	cna
Belarus	1.34	1.43	1.39	19	14.60	14.27	14.43	38	91448.25	100572.66	96010.46	16
Belgium	cna	cna	cna	cna	.na	48.61	48.61	12	cna	cna	cna	cna
Brazil	cna	cna	cna	cna	4.23	4.65	4.44	56	cna	cna	cna	cna
British Virgin Islands	1.02	cna	1.02	25	45.35	cna	45.35	13	22500.00	22500.00	22500.00	40
Bulgaria	0.31	0.31	0.31	39	8.01	8.84	8.42	50	39062.44	35018.59	37040.51	32
Cameroon	cna	cna	cna	cna	0.73	0.72	0.72	73	cna	cna	cna	cna
Canada	cna	cna	cna	cna	20.33	cna	20.33	33	cna	cna	cna	cna
Chile	0.61	0.66	0.63	31	3.99	3.83	3.91	60	152042.94	171262.49	161652.72	10
China	cna	cna	cna	cna	na	28.58	28.58	25	cna	cna	cna	cna
Colombia	cna	0.36	0.36	38	9.95	cna	9.95	46	cna	cna	cna	cna
Costa Rica	0.86	0.92	0.89	28	4.16	4.55	4.35	57	205698.56	201565.65	203632.10	6
Croatia	0.48	0.59	0.53	34	23.51	19.10	21.30	32	20286.07	30641.51	25463.79	38
Cuba	0.12	0.14	0.13	45	38.81	38.79	38.80	18	3144.39	3494.97	3319.68	48
Cyprus	cna	cna	cna	cna	15.66	12.84	14.25	39	cna	cna	cna	cna
Czech Republic	cna	cna	cna	cna	na	68.80	68.80	7	cna	cna	cna	cna
Denmark	cna	cna	cna	cna	71.81	70.90	71.36	6	cna	cna	cna	cna
Dominican Republic	cna	cna	cna	cna	2.22	2.18	2.20	69	cna	cna	cna	cna
Egypt	0.40	cna	0.40	37	2.26	2.94	2.60	64	178042.42	cna	178042.42	8
Estonia	0.86	1.17	1.01	26	43.14	41.05	42.10	15	19817.64	28587.16	24202.40	39
Finland	1.16	1.27	1.22	21	40.41	38.96	39.69	17	28762.51	32619.73	30691.12	36
France	2.88	3.08	2.98	7	87.98	87.43	87.70	3	32685.43	35193.96	33939.69	35
Germany	1.53	1.63	1.58	14	22.43	22.06	22.25	31	68087.71	73841.72	70964.71	18
Hungary	1.07	1.04	1.06	22	24.09	21.47	22.78	30	44382.34	48548.15	46465.25	26
Iceland	4.67	5.04	4.86	2	71.01	73.72	72.36	5	65818.71	68346.64	67082.68	19
India	3.32	cna	3.32	6	9.26	cna	9.26	47	359047.62	cna	359047.62	3
Indonesia	0.19	cna	0.19	42	3.99	cna	3.99	59	48004.43	cna	48004.43	25
Iran, Islamic Republic of	cna	cna	cna	cna	3.51	cna	3.51	62	cna	cna	cna	cna
Ireland	cna	4.93	4.93	1	15.45	15.16	15.30	36	cna	325000.00	325000.00	4
Israel	cna	cna	cna	cna	8.97	8.52	8.74	49	cna	cna	cna	cna
Italy	cna	1.57	1.57	15	35.26	32.49	33.88	23	cna	48227.22	48227.22	24
Japan	cna	cna	cna	cna	22.88	23.93	23.40	28	cna	cna	cna	cna
Kyrgyzstan	-	-	-	-	12.30	10.08	11.19	44	4054.69	4307.55	4181.12	46
Lao PDR	cna	-	-	-	0.88	0.87	0.88	72	cna	17520.00	17520.00	42
Latvia	0.70	0.90	0.80	29	19.55	18.35	18.95	34	35877.89	48818.93	42348.41	27
Lebanon	2.46	2.39	2.42	11	36.40	36.99	36.70	19	67534.25	64500.00	66017.12	20

Table A.5. - Admissions per capita (variety consumed by title), number of cinemas per capita and number of admissions per cinema (variety distributed by title) (continued)

Country	Criteria	Admissions per capita				Number of cinemas per capita (cinema per 1000 inhabitants)				Number of admissions per cinema			
		2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06	Rank 05-06
Lithuania		0.35	0.73	0.54	33	14.89	14.08	14.49	37	23309.59	51661.33	37485.46	30
Luxembourg		cna	cna	cna	cna	.	52.02	52.02	10	cna	cna	cna	cna
China, Macao SAR		1.08	0.99	1.03	23	8.46	8.38	8.42	51	127229.75	118365.50	122797.63	13
Malaysia		0.98	1.07	1.02	24	2.57	2.60	2.59	65	379242.42	409852.94	394547.68	2
Mauritius		cna	cna	cna	cna	12.89	13.58	13.24	42	cna	cna	cna	cna
Mexico		1.48	1.46	1.47	17	7.60	7.61	7.60	53	194441.02	192373.14	193407.08	7
Morocco		0.16	0.12	0.14	43	3.90	3.11	3.51	63	40031.41	39966.77	39999.09	28
Mozambique		cna	-	-	-	0.54	0.57	0.55	74	20743.18	15417.83	18080.51	41
Namibia		cna	cna	cna	cna	1.98	1.47	1.72	71	cna	cna	cna	cna
Netherlands		1.23	1.41	1.32	20	10.47	9.95	10.21	45	117824.56	141533.74	129679.15	12
Niger		cna	cna	cna	cna	0.38	0.36	0.37	75	cna	cna	cna	cna
Nigeria		cna	cna	cna	cna	34.46	33.66	34.06	22	cna	cna	cna	cna
Norway		2.58	2.57	2.58	10	51.95	50.34	51.14	11	49652.51	51116.99	50384.75	23
Oman		cna	-	-	-	5.58	7.07	6.33	54	cna	-	-	-
Philippines		cna	cna	cna	cna	2.61	2.45	2.53	66	cna	cna	cna	cna
Poland		0.62	0.84	0.73	30	14.27	13.48	13.87	41	43239.51	62283.99	52761.75	22
Portugal		1.43	1.47	1.45	18	15.01	13.33	14.17	40	95122.39	110166.89	102644.64	15
Republic of Moldova		0.30	-	0.30	40	2.22	2.23	2.23	68	135312.50	143300.00	139306.25	11
Romania		0.13	0.13	0.13	44	3.93	3.39	3.66	61	33288.98	38038.58	35663.78	34
Russian Federation		0.58	0.62	0.60	32	6.95	9.21	8.08	52	83016.98	67854.44	75435.71	17
St Vincent - Grenadines		-	-	-	-	16.79	16.70	16.74	35	-	-	-	-
Singapore		3.49	3.56	3.52	5	6.01	6.16	6.08	55	580150.00	577333.33	578741.67	1
Slovakia		0.41	0.63	0.52	35	41.21	40.27	40.74	16	9838.95	15648.25	12743.60	44
Slovenia		cna	cna	cna	cna	30.51	28.49	29.50	24	cna	cna	cna	cna
Spain		2.94	2.77	2.86	8	24.24	22.56	23.40	29	121330.80	122878.79	122104.79	14
Sweden		cna	cna	cna	cna	.	128.99	128.99	1	cna	cna	cna	cna
Switzerland		2.01	2.20	2.11	12	56.30	55.53	55.92	9	35765.57	39566.04	37665.80	29
Thailand		0.52	cna	0.52	36	8.86	cna	8.86	48	58243.73	cna	58243.73	21
Tunisia		-	cna	-	-	2.18	cna	2.18	70	13636.36	cna	13636.36	43
Turkey		cna	cna	cna	-	4.30	4.09	4.19	58	cna	cna	cna	cna
Ukraine		0.19	0.24	0.21	41	60.21	58.85	59.53	8	3182.76	4039.96	3611.36	47
United Arab Emirates		na	1.51	1.51	16	45.07	cna	45.07	14	cna	cna	cna	cna
United Kingdom		2.73	2.59	2.66	9	10.94	11.52	11.23	43	249924.13	224620.38	237272.25	5
USA		4.68	4.78	4.73	3	125.86	126.85	126.36	2	37175.41	37719.64	37447.53	31

Notes: na: not available
cna: category not applicable
(-): magnitude nil or negligible

Table A6. Percentage (%) of cinemas with 8 screens or more (multiplexes)

Country	2005	2006	Mean 05-06	Rank 05-06
Australia	22.16	21.05	21.61	7
Brazil	7.09	6.70	6.90	17
Bulgaria	4.84	7.35	6.10	19
Chile	23.08	22.22	22.65	5
Costa Rica	22.22	20.00	21.11	8
Croatia	0.93	1.15	1.04	31
Dominican Republic	38.10	38.10	38.10	2
Estonia	1.72	1.82	1.77	30
Finland	1.89	2.44	2.16	28
France	31.83	32.38	32.10	3
Germany	7.23	7.35	7.29	15
Hungary	4.94	5.56	5.25	21
Ireland	39.06	39.06	39.06	1
Israel	16.67	17.24	16.95	10
Italy	4.50	5.29	4.89	22
Latvia	2.22	2.38	2.30	27
Lebanon	2.74	2.67	2.70	25
Lithuania	3.92	4.17	4.04	23
Malaysia	13.64	14.71	14.17	11
Mexico	29.17	32.42	30.79	4
Netherlands	7.02	8.59	7.80	13
Norway	3.32	2.55	2.94	24
Philippines	6.79	8.53	7.66	14
Poland	6.06	6.61	6.33	18
Portugal	10.13	10.64	10.38	12
Romania	2.35	2.74	2.55	26
Singapore	19.23	25.93	22.58	6
Slovakia	0.90	0.92	0.91	32
Slovenia	4.92	7.02	5.97	20
Spain	16.16	18.18	17.17	9
Switzerland	1.67	1.93	1.80	29
Turkey	6.05	7.95	7.00	16

Table A7. Variety and balance distributed by title

Criteria	Total number of distribution companies				Total market share of the three main distribution companies			
	Country	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06
Australia	34	29	31.50	11	67	59	63.00	18
Austria	23	24	23.50	16	61.1	53.8	57.45	15
Belarus	7	7	7.00	36	77.7	77.2	77.45	26
Belgium	28	na	28.00	12	cna	cna	cna	cna
Brazil	25	29	27.00	13	58.5	56	57.25	14
Bulgaria	52	56	54.00	8	cna	cna	cna	cna
Canada	na	na	na	na	44.4	44.1	44.25	3
Chile	23	20	21.50	18	60.4	53.3	56.85	13
Costa Rica	2	2	2.00	47	100	100	100.00	33
Croatia	8	7	7.50	35	84	89	86.50	28
Cuba	1	1	1.00	48	100	100	100.00	33
Cyprus	na	5	5.00	44	cna	cna	cna	cna
Czech Republic	17	na	17.00	21	cna	cna	cna	cna
Denmark	18	na	18.00	20	64	79	71.50	22
Dominican Republic	1	1	1.00	48	cna	cna	cna	cna
Egypt	9	11	10.00	32	cna	cna	cna	cna
Estonia	4	5	4.50	46	98	99	98.50	31
Finland	11	11	11.00	31	76	78	77.00	25
France	108	na	108.00	5	33	33.9	33.45	1
Germany	79	89	84.00	6	56.8	49	52.90	9
Hungary	16	13	14.50	25	73	77	75.00	24
Iceland	7	4	5.50	43	97	99	98.00	30
Ireland	7	7	7.00	36	cna	cna	cna	cna
India	12	12	12.00	29	cna	cna	cna	cna
Italy	36	36	36.00	10	cna	38.1	38.10	2
Japan	na	na	na	na	48.5	53.5	51.00	7
Lao PDR	1	1	1.00	48	100	100	100.00	33
Latvia	6	4	5.00	44	98	99	98.50	31
Lebanon	13	14	13.50	27	75	63	69.00	19
Lithuania	7	6	6.50	41	cna	cna	cna	cna
Malaysia	387	529	458.00	1	100	100	100.00	33
Mauritius	8	6	7.00	36	cna	cna	cna	cna
Mexico	16	17	16.50	22	56	51	53.50	10
Morocco	7	7	7.00	36	cna	cna	cna	cna
Namibia	1	1	1.00	48	90	90	90.00	29
Netherlands	14	14	14.00	26	54.11	45.75	49.93	6
Nigeria	139	139	139.00	4	100	100	100.00	33
Norway	16	na	16.00	23	56	56	56.00	12
Oman	9	9	9.00	34	cna	cna	cna	cna
Philippines	223	239	231.00	2	cna	cna	cna	cna
Poland	26	28	27.00	13	cna	cna	cna	cna
Portugal	11	15	13.00	28	82	86	84.00	27
Rep. of Moldova	6	7	6.50	41	cna	cna	cna	cna
Romania	27	17	22.00	17	73.9	74.6	74.25	23
Russian Federation	na	na	na	na	55.5	62.3	58.90	16
Singapore	7	7	7.00	36	cna	cna	cna	cna
Slovakia	9	11	10.00	32	71.52	67.37	69.45	20
Slovenia	20	20	20.00	19	49	56.1	52.55	8
Spain	176	176	176.00	3	49.2	48.57	48.89	5
Sweden	25	na	25.00	15	cna	cna	cna	cna
Switzerland	43	46	44.50	9	52.2	55.2	53.70	11
Turkey	16	na	16.00	23	cna	cna	cna	cna
Ukraine	10	13	11.50	30	68	74	71.00	21
United Kingdom	69	67	68.00	7	61.6	cna	61.60	17
USA	na	na	na	na	42.5	46.4	44.45	4

Notes: na: not available
cna: category not applicable

Table A8. Market Share of top ten films in total admissions (balance consumed by title)

Country	2005	2006	Change 05-06	Mean 05-06	Rank 05-06
Australia	28.11	25.67	-8.68	26.89	6
Austria	30.25	40.35	33.37	35.30	18
Bulgaria	32.83	29.75	-9.38	31.29	13
Chile	41.92	40.65	-3.03	41.28	24
Costa Rica	39.40	40.16	1.92	39.78	22
Estonia	24.50	41.22	68.22	32.86	14
Finland	30.83	42.69	38.48	36.76	20
France	23.33	26.49	13.57	24.91	4
Germany	32.00	35.35	10.49	33.67	15
Hungary	36.04	35.48	-1.55	35.76	19
Iceland	25.79	29.64	14.93	27.71	8
Latvia	na	28.91	Na	28.91	9
Lebanon	7.13	7.01	-1.71	7.07	1
Lithuania	32.24	38.08	18.13	35.16	17
Malaysia	18.63	26.00	39.52	22.32	3
Mexico	31.69	30.45	-3.93	31.07	11
Morocco	9.46	17.75	87.69	13.60	2
Netherlands	29.08	33.37	14.73	31.23	12
Norway	31.85	36.51	14.64	34.18	16
Poland	38.27	43.70	14.18	40.98	23
Portugal	28.27	26.64	-5.76	27.46	7
Romania	27.64	25.42	-8.05	26.53	5
Slovakia	33.09	45.05	36.13	39.07	21
Switzerland	27.33	30.85	12.88	29.09	10
Ukraine	na	7.78*	Na	na	na

Notes: * Market share of the top three
na: not available

**Table A9. Rate of similarity between top ten films and the global top ten
(disparity consumed by title)**

Country	Number of titles Criteria belonging to the global top ten		Rate of similarity (%)				
	2005	2006	2005	2006	Change 05-06	Mean 05-06	Rank 05-06
Australia	7	8	70	80	10	75.00	31
Austria	7	6	70	60	-10	65.00	21
Brazil	5	6	50	60	10	55.00	10
Bulgaria	7	6	70	60	-10	65.00	21
Chile	5	6	50	60	10	55.00	10
Costa Rica	5	6	50	60	10	55.00	10
Czech Republic	7	9	70	90	20	80.00	32
Denmark	3	6	30	60	30	45.00	6
Estonia	6	7	60	70	10	65.00	21
Finland	5	5	50	50	0	50.00	8
France	6	3	60	30	-30	45.00	6
Germany	8	6	80	60	-20	70.00	25
Hungary	8	6	80	60	-20	70.00	25
Iceland	7	9	70	90	20	80.00	32
Ireland	6	na	60	na	na	60.00	16
Italy	2	na	20	na	na	20.00	1
Japan	3	4	30	40	10	35.00	4
Latvia	na	7	na	70	na	70.00	25
Lebanon	6	4	60	40	-20	50.00	8
Lithuania	6	6	60	60	0	60.00	16
Malaysia	3	4	30	40	10	35.00	4
Mexico	5	6	50	60	10	55.00	10
Morocco	3	3	30	30	0	30.00	2
Netherlands	8	6	80	60	-20	70.00	25
Norway	5	7	50	70	20	60.00	16
Poland	7	5	70	50	-20	60.00	16
Portugal	6	6	60	60	0	60.00	16
Rep. of Korea	3	3	30	30	0	30.00	2
Romania	8	6	80	60	-20	70.00	25
Slovakia	7	6	70	60	-10	65.00	21
Sweden	na	7	na	70	na	70.00	25
Switzerland	7	4	70	40	-30	55.00	10
Turkey	4	7	40	70	30	55.00	10
Ukraine	na	2*	na	66.66*	na	66.66*	na

Notes: * calculated on the Top 3
na: not available

Table A10. Variety and balance supplied by language

Criteria	Number of different languages in which films are shot			Number of foreign languages			HHI calculated on the market share of each language in total production			
	2005	2006	Mean 05-06	2005	2006	Mean 05-06	2005	2006	Mean 05-06	Rank 05-06
Australia	2	2	2	0	0	0	9232	9311	9272	25
Austria	na	5	5	na	4	4	na	5647	5647	15
Azerbaijan	1	1	1	0	0	0	10000	na	10000	27
Belarus	1	2	1.5	0	1	0.5	10000	5000	7500	19
Cambodia	2	2	2	1	1	1	8644	9683	9163	24
Cameroon	2	3	2.5	1	1	1	6250	4286	5268	11
Canada	2	at least 3	2	0	0	0	5126	4843	4984	8
Chile	1	1	1	0	0	0	10000	10000	10000	27
Croatia	na	2	2	na	0	0	na	5000	5000	9
Cyprus	na	2	2	na	1	1	na	6250	6250	17
Egypt	1	na	1	0	na	0	10000	na	10000	27
Estonia	2	4	3	1	2	1.5	6800	5510	6155	16
Finland	at least 4	at least 3	at least 3.5	at least 2	at least 2	at least 2	4900	5734	5317	12
Hungary	1	1	1	0	0	0	10000	10000	10000	27
Iceland	2	1	1.5	1	0	0.5	5000	10000	7500	19
India	5	na	5	0	na	0	1489	na	1489	1
Israel	1	1	1	0	0	0	10000	10000	10000	27
Kyrgyzstan	na	1	1	na	0	0	na	10000	10000	27
Latvia	1	1	1	0	0	0	10000	10000	10000	27
Lebanon	1	1	1	0	0	0	10000	10000	10000	27
Lithuania	2	1	1.5	1	1	1	5000	10000	7500	19
China, Macao SAR	na	1	1	na	0	0	na	10000	10000	27
Malaysia	2	4	3	1	1	1	7732	5485	6608	18
Mexico	1	2	1.5	0	1	0.5	10000	9395	9697	26
Mongolia	1	1	1	0	0	0	10000	10000	10000	27
Morocco	3	4	3.5	1	2	1.5	5078	4861	4970	7
Mozambique	na	1	1	na	0	0	na	10000	10000	27
Namibia	3	na	3	0	na	0	10000	na	10000	27
Netherlands	4	2	3	3	1	2	8074	9093	8583	23
New Zealand	1	1	1	0	0	0	10000	na	10000	27
Nigeria	at least 6	na	at least 6	at least 1	na	at least 1	4131	na	4131	6
Oman	na	1	1	na	0	0	na	10000	10000	27
Portugal	at least 3	at least 4	at least 3.5	at least 1	at least 3	at least 2	6901	3271	5086	10
Rep. of Moldova	1	2	1.5	0	1	0.5	10000	5556	7778	22
Romania	4	3	3.5	3	2	2.5	4300	6358	5329	13
Singapore	na	4	4	na	2	2	na	2800	2800	3
Slovakia	4	3	3.5	2	1	1.5	2245	3333	2789	2
Slovenia	at least 4	6	6	na	1	1	4200	3333	3767	4
Spain	at least 6	at least 5	at least 5.5	at least 2	at least 2	at least 2	5735	4973	5354	14
Switzerland	5	at least 5	5	3	at least 3	3	4244	3850	4047	5
Ukraine	1	1	1	0	0	0	10000	10000	10000	27

Table A11. Admissions by language for the top ten films, 2005

Country	Language	Admission	%	Country	Language	Admission	%
Australia	English	20400000 *	86.81 *	Lithuania	English	267157	69.72
Australia	English/French	3100000 *	13.19 *	Lithuania	English/French	51653	13.48
Australia	Total	23500000	100.00	Lithuania	Lithuanian	64399	16.81
Austria	English	3835000	84.12	Lithuania	Total	383209	100.00
Austria	English/French	724000	15.88	Malaysia	English	2985642	64.01
Austria	Total	4559000	100.00	Malaysia	English/French	584971	12.54
Brazil	English	23708451	71.00	Malaysia	Mandarin	772174	16.56
Brazil	English/French	4363724	13.07	Malaysia	Tamil	321458	6.89
Brazil	Portuguese	5319677	15.93	Malaysia	Total	4664245	100.00
Brazil	Total	33391852	100.00	Mexico	English	42612899	87.32
Bulgaria	English	724904	91.18	Mexico	English/French	6189888	12.68
Bulgaria	English/French	70128	8.82	Mexico	Total	48802787	100.00
Bulgaria	Total	795032	100.00	Morocco	English	149441	33.18
Chile	English	3576609	86.34	Morocco	Hindi	78584	17.45
Chile	English/French	566074	13.66	Morocco	Urdu/Hindi/Punjabi	34227	7.60
Chile	Total	4142683	100.00	Morocco	Thai	41810	9.28
Costa Rica	English	1160205	79.53	Morocco	Arabic	146350	32.49
Costa Rica	English/French	298621	20.47	Morocco	Total	450412	100.00
Costa Rica	Total	1458826	100.00	Netherlands	English	4844000	82.66
Denmark	English	823112	20.51	Netherlands	English/French	1016000	17.34
Denmark	English/French	623656	15.54	Netherlands	Total	5860000	100.00
Denmark	Danish	2229692	55.57	Norway	English	2651728	69.58
Denmark	German	336063	8.38	Norway	English/French	585088	15.35
Denmark	Total	4012523	100.00	Norway	Norwegian	309735	8.13
Estonia	English	235239	83.52	Norway	German	264431	6.94
Estonia	English/French	46416	16.48	Norway	Total	3810982	100.00
Estonia	Total	281655	100.00	Poland	English	5766714	63.94
Finland	English	1347344	71.67	Poland	English/French	1373747	15.23
Finland	English/French	360884	19.20	Poland	Italian	1878124	20.83
Finland	Finnish	171709	9.13	Poland	Total	9018585	100.00
Finland	Total	1879937	100.00	Portugal	English	3404993	80.13
France	English	26970000	65.93	Portugal	English/French	527176	12.41
France	English/French	9540000	23.32	Portugal	Portuguese	317234	7.47
France	French	4400000	10.76	Portugal	Total	4249403	100.00
France	Total	40910000	100.00	Republic of Korea	English	10203800	23.32
Germany	English	30670416	75.93	Republic of Korea	English/French	3473400	7.94
Germany	English/French	7563181	18.73	Republic of Korea	Korean	14694644	33.58
Germany	German	2156934	5.34	Republic of Korea	Korean/English	8008622	18.30
Germany	Total	40390531	100.00	Republic of Korea	Korean/ English/Thai/ Russian/Mandarin	3723752	8.51
Hungary	English	2633054	67.74	Republic of Korea	Korean/English/Japanese	3650000	8.34
Hungary	English/French	550121	14.15	Republic of Korea	Total	43754218	100.00
Hungary	Hungarian	703567	18.10	Romania	English	717609	91.75
Hungary	Total	3886742	100.00	Romania	English/French	64568	8.25
Iceland	English	309303	86.78	Romania	Total	782177	100.00
Iceland	English/French	47119	13.22	Slovakia	English	603239	83.46
Iceland	Total	356422	100.00	Slovakia	English/French	119514	16.54
Ireland	English	36698882	88.54	Slovakia	Total	722753	100.00
Ireland	English/French	4752178	11.46	Switzerland	English	2985301	73.06
Ireland	Total	41451060	100.00	Switzerland	English/French	612090	14.98
Italy	English	16958599	68.09	Switzerland	German	488849	11.96
Italy	Italian	7947816	31.91	Switzerland	Total	4086240	100.00
Italy	Total	24906415	100.00	Turkey ^a	English	4008486	84.24
Japan	English	27595142	51.47	Turkey ^a	English/French	749704	15.76
Japan	Japanese	26016194	48.53	Turkey ^a	Total	4758190	100.00
Japan	Total	53611336	100.00	Czech Republic ^a	English	1790229	75.08
Lebanon	English	532000	75.68	Czech Republic ^a	English/French	467182	19.59
Lebanon	Arabic	171000	24.32	Czech Republic ^a	German	127089	5.33
Lebanon	Total	703000	100.00	Czech Republic ^a	Total	2384500	100.00

Notes: * Estimation

^a Based on the top 50 films by admissions in Europe

Table A12. Admissions by language for the top ten films, 2006

Country	Language	Admission	%	Country	Language	Admission	%
Australia	English	18500000	87.68*	Lithuania	Japanese	48323	5.12
Australia	English/French	2600000	12.32*	Lithuania	Total	944276	100.00
Australia	Total	21100000	100.00	Malaysia	English	4530844	62.53
Austria	English	4419953	69.46	Malaysia	English/French	434710	6.00
Austria	English/French	1482000	23.29	Malaysia	Mandarin	1703679	23.51
Austria	German	461783	7.26	Malaysia	Malay	576806	7.96
Austria	Total	6363736	100.00	Malaysia	Total	7246039	100.00
Brazil	English	24927491	75.00	Mexico	English	37587522	80.02
Brazil	English/French	4663464	14.03	Mexico	English/French	5389793	11.47
Brazil	Portuguese	3644956	10.97	Mexico	Spanish	3994533	8.50
Brazil	Total	33235911	100.00	Mexico	Total	46971848	100.00
Bulgaria	English	564160	79.64	Morocco	English	75245	11.05
Bulgaria	English/French	144253	20.36	Morocco	English/French	35216	5.17
Bulgaria	Total	708413	100.00	Morocco	Arabic/French	180915	26.57
Chile	English	3183173	72.58	Morocco	Arabic	389519	57.21
Chile	English/French	573733	13.08	Morocco	Total	680895	100.00
Chile	Spanish	628948	14.34	Netherlands	English	5291000	68.73
Chile	Total	4385854	100.00	Netherlands	English/French	1423000	18.49
Costa Rica	English	1476495	91.20	Netherlands	Dutch	984000	12.78
Costa Rica	English/French	142402	8.80	Netherlands	Total	7698000	100.00
Costa Rica	Total	1618897	100.00	Norway	English	3432058	78.25
Denmark	English	2774108	62.18	Norway	English/French	442599	10.09
Denmark	English/French	623989	13.99	Norway	Norwegian	511254	11.66
Denmark	Danish	1063215	23.83	Norway	Total	4385911	100.00
Denmark	Total	4461312	100.00	Poland	English	9925011	70.95
Estonia	English	487588	75.23	Poland	English/French	1218387	8.71
Estonia	English/French	62095	9.58	Poland	Polish	2845311	20.34
Estonia	Estonian	98420	15.19	Poland	Total	13988709	100.00
Estonia	Total	648103	100.00	Portugal	English	3103579	74.99
Finland	English	1574868	55.16	Portugal	English/French	756770	18.28
Finland	English/French	365276	12.79	Portugal	Portuguese	278421	6.73
Finland	Finnish	914766	32.04	Portugal	Total	4138770	100.00
Finland	Total	2854910	100.00	Republic of Korea	English	10369692	16.49
France	English	13120000	26.25	Republic of Korea	English/French	3339082	5.31
France	English/French	8270000	16.54	Republic of Korea	Japanese/Korean	3880308	6.17
France	French/Romanian	3480000	6.96	Republic of Korea	Korean/English	13019740	20.70
France	French/Arabic	3000000	6.00	Republic of Korea	Korean	32282421	51.33
France	French	22120000	44.25	Republic of Korea	Total	62891243	100.00
France	Total	49990000	100.00	Romania	English	556373	78.82
Germany	English	34448978	72.39	Romania	English/French	149463	21.18
Germany	English/French	5638982	11.85	Romania	Total	705836	100.00
Germany	German	7501254	15.76	Slovakia	English	1214934	79.43
Germany	Total	47589214	100.00	Slovakia	English/French	314673	20.57
Hungary	English	2238829	60.18	Slovakia	Total	1529607	100.00
Hungary	English/French	538221	14.47	Sweden	English	4579385	80.39
Hungary	Hungarian	943385	25.36	Sweden	English/French	654437	11.49
Hungary	Total	3720435	100.00	Sweden	Swedish/Italian /English/French	462820	8.12
Iceland	English	311666	69.94	Sweden	Total	5696642	100.00
Iceland	English/French	52389	11.76	Switzerland	English	3425959	67.79
Iceland	Icelandic	81580	18.31	Switzerland	English/French	601341	11.90
Iceland	Total	445635	100.00	Switzerland	German	745706	14.76
Japan	English	17866992	29.87	Switzerland	French	280801	5.56
Japan	English/French	16264396	27.19	Switzerland	Total	5053807	100.00
Japan	Japanese	25685320	42.94	Ukraine**	English	820000	41.67
Japan	Total	59816708	100.00	Ukraine**	English/French	612000	31.10
Latvia	English	445662	75.17	Ukraine**	Russian	536000	27.24
Latvia	English/French	97450	16.44	Ukraine**	Total	1968000	100.00
Latvia	Russian	49757	8.39	Turkey ^a	English	4232259	44.47
Latvia	Total	592869	100.00	Turkey ^a	English/French	1028928	10.81
Lebanon	English	632500	93.29	Turkey ^a	Turkish	4256567	44.72
Lebanon	Arabic	45500	6.71	Turkey ^a	Total	9517754	100.00
Lebanon	Total	678000	100.00	Czech Republic ^a	English	2704853	83.69

Table A12. Admissions by language for the top ten films, 2006 (continued)

Country	Language	Admission	%	Country	Language	Admission	%
Lithuania	English	780566	82.66	Czech Republic ^a	English/French	527167	16.3
Lithuania	English/French	115387	12.22	Czech Republic ^a	Total	3232020	100.00

Notes: * Estimation

** Calculated on the top three

^a Based on the top 50 films by admissions in Europe

Table A13. Variety by language for the top ten films

Country	Criteria	Number of languages			Number of foreign languages		
		2005	2006	Mean 05-06	2005	2006	Mean 05-06
Australia*		2	2	2	1	1	1
Austria		2	3	2.5	1	2	1.5
Brazil		3	3	3	2	2	2
Bulgaria		2	2	2	2	2	2
Chile		2	3	2.5	2	2	2
Costa Rica		2	2	2	2	2	2
Denmark		3	3	3	3	2	2.5
Estonia		2	3	2.5	2	2	2
Finland		3	3	3	2	2	2
France		2	4	3	1	3	2
Germany		3	3	3	2	2	2
Hungary		3	3	3	2	2	2
Iceland		2	3	2.5	2	2	2
Ireland		2	na	2	1	na	1
Italy		2	na	2	1	na	1
Japan		2	3	2.5	1	2	1.5
Latvia		na	3	3	na	3	3
Lebanon		2	2	2	1	1	1
Lithuania		3	3	3	2	3	2.5
Malaysia		4	4	4	3	3	3
Mexico		2	3	2.5	2	2	2
Morocco		6	3	4.5	5	2	3.5
Netherlands		2	3	2.5	2	2	2
Norway		4	3	3.5	3	2	2.5
Poland		3	3	3	3	2	2.5
Portugal		3	3	3	2	2	2
R. of Korea		7	4	5.5	6	3	4.5
Romania		2	2	2	2	2	2
Slovakia		2	2	2	2	2	2
Sweden		na	4	4	na	3	3
Switzerland		3	3	3	1	1	1
Ukraine**		na	3**	3	na	3	3
Turkey ^a		2	3	2.5	2	2	2
Czech Republic ^a		3	2	2.5	3	2	2.5

Notes: * Estimation

** Calculated on the Top 3

^a Based on the top 50 films by admissions in Europe

Table A14. Balance and disparity for the top ten films by language

Country	HHI [1]				Hst [2]				Hfhp [3]				Difference of ranking between [1] and [2]	Difference of ranking between [1] and [3]	Difference of ranking between [2] and [3]
	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06	Rank 05-06	05-06	05-06	05-06
Australia*	10000.00	10000.00	10000.00	28	0.00	0.00	0.00	25	0.00	0.00	0.00	24	3	4	1
Austria	10000.00	8654.02	9327.01	26	0.00	284.00	142.00	23	0.00	119.85	59.92	22	3	4	1
Brazil	7321.38	8047.16	7684.27	15	1017.87	742.08	879.98	11	773.58	563.98	668.78	10	4	5	1
Bulgaria	10000.00	10000.00	10000.00	28	0.00	0.00	0.00	25	0.00	0.00	0.00	24	3	4	1
Chile	10000.00	7543.22	8771.61	23	0.00	933.58	466.79	17	0.00	709.52	354.76	14	6	9	3
Costa Rica	10000.00	10000.00	10000.00	28	0.00	0.00	0.00	25	0.00	0.00	0.00	24	3	4	1
Denmark	4458.04	6369.54	5413.79	5	1079.26	738.80	909.03	10	387.04	300.69	343.87	15	-5	-10	-5
Estonia	10000.00	7424.05	8712.02	22	0.00	1287.98	643.99	14	0.00	1287.98	643.99	11	8	11	3
Finland	8340.10	5644.99	6992.54	10	829.95	2177.50	1503.73	6	829.95	2177.50	1503.73	4	4	6	2
France	5005.61	3004.93	4005.27	3	1328.65	2026.32	1677.48	4	1015.09	1515.57	1265.33	5	-1	-2	-1
Germany	8989.00	7344.41	8166.70	17	213.32	560.33	386.83	18	90.02	236.46	163.24	18	-1	-1	0
Hungary	7035.00	6214.57	6624.79	8	1482.50	1892.71	1687.61	3	1482.50	1892.71	1687.61	3	5	5	0
Iceland	10000.00	7008.96	8504.48	19	0.00	678.97	339.48	20	0.00	308.25	154.13	19	-1	0	1
Ireland	10000.00	na	10000.00	28	0.00	na	0.00	25	0.00	na	0.00	24	3	4	1
Italy	5654.44	na	5654.44	6	1636.10	na	1636.10	5	1231.98	na	1231.98	8	1	-2	-3
Japan	5004.34	5099.69	5052.01	4	2497.83	2450.16	2473.99	1	2497.83	2450.16	2473.99	1	3	3	0
Latvia	na	8462.35	8462.35	18	na	582.77	582.77	15	na	299.96	299.96	16	3	2	-1
Lebanon	6318.48	8747.89	7533.19	13	1840.76	626.06	1233.41	9	1840.76	626.06	1233.41	7	4	6	2
Lithuania	7203.79	9028.88	8116.34	16	1096.11	485.56	790.84	12	859.35	380.68	620.02	12	4	4	0
Malaysia	6181.91	5312.24	5747.08	7	mna	mna	mna	mna	mna	mna	mna	mna	mna	mna	mna
Mexico	10000.00	8443.82	9221.91	25	0.00	591.35	295.67	21	0.00	449.42	224.71	17	4	8	4
Morocco	2604.90	4241.79	3423.35	2	mna	1852.72	1852.72	2	mna	1852.72	1852.72	2	0	0	0
Netherlands	10000.00	7770.28	8885.14	24	0.00	437.03	218.51	22	0.00	171.31	85.66	21	2	3	1
Norway	7327.97	7940.41	7634.19	14	mna	mna	mna	mna	mna	mna	mna	mna	mna	mna	mna
Poland	6702.36	6759.42	6730.89	9	1241.56	1233.04	1237.30	7	721.85	938.34	830.10	9	2	0	-2
Portugal	8618.39	8745.08	8681.73	21	525.01	476.87	500.94	16	399.01	362.42	380.72	13	5	8	3
R. of Korea	2582.10	3576.60	3079.35	1	mna	mna	mna	mna	mna	mna	mna	mna	mna	mna	mna
Romania	10000.00	10000.00	10000.00	28	0.00	0.00	0.00	25	0.00	0.00	0.00	24	3	4	1
Slovakia	10000.00	10000.00	10000.00	28	0.00	0.00	0.00	25	0.00	0.00	0.00	24	3	4	1
Sweden	na	8507.13	8507.13	20	na	374.72	374.72	19	na	126.32	126.32	20	1	0	-1
Switzerland	7893.58	6598.84	7246.21	11	444.45	896.45	670.45	13	mna	mna	mna	mna	-2	mna	mna
Ukraine**	na	6036.42	6036.42	na	na	1502.20	1502.20	na	na	257.95	257.95	na	na	na	na
Turkey ^a	10000.00	5055.71	7527.85	12	0.00	2472.15	1236.07	8	0	2472.15	1236.07	6	4	6	2
Czech Republic ^a	8990.85	10000.00	9495.43	27	212.93	0.00	106.46	24	119.76	0.00	59.88	23	3	4	1

Notes: na: not available

mna: methodology not available

* Estimation

** Calculated on the top three

^a Based on the top 50 films by admissions in Europe

For the films *Harry Potter* and *Da Vinci Code*, the original language is considered English

Table A15. Variety and balance supplied by country of origin

Country	Number of films coproduced				Percentage (%) of 100% national feature films produced		
	2005	2006	Mean 05-06	Rank 05-06	2005	2006	Mean 05-06
Armenia	-	2	2.00	36	-	25.00	25.00
Australia	3	3	3.00	26	12.00	10.71	11.36
Austria	13	11	12.00	12	43.33	32.35	37.84
Belgium	na	6	6.00	19	cna	60.00	60.00
Bulgaria	7	6	6.50	18	77.78	60.00	68.89
Burkina Faso	2	3	2.50	30	50.00	60.00	55.00
Cameroon	1	1	1.00	42	25.00	14.29	19.64
Canada	16	21	18.50	9	30.77	28.38	29.57
Chile	3	2	2.50	30	16.67	18.18	17.42
China	37	na	37.00	5	cna	-	-
Croatia	na	2	2.00	36	-	100.00	100.00
Cuba	3	4	3.50	25	75.00	66.67	70.83
Cyprus	na	3	3.00	26	cna	75.00	75.00
Czech Rep.	na	7	7.00	17	cna	20.00	20.00
Dominican Rep.	.na	1	1.00	42	-	11.11	11.11
Egypt	23	na	23.00	7	-	-	-
Estonia	1	4	2.50	30	20.00	57.14	38.57
Finland	5	3	4.00	23	25.00	15.79	20.39
France	114	76	95.00	1	47.50	37.44	42.47
Germany	55	57	56.00	3	37.67	32.76	35.21
Hungary	9	9	9.00	14	34.62	19.57	27.09
Iceland	2	3	2.50	30	100.00	50.00	75.00
Ireland	7	12	9.50	13	70.00	63.16	66.58
Israel	2	na	2.00	36	9.09	-	9.09
Italy	30	26	28.00	6	30.61	22.41	26.51
Kyrgyzstan	na	1	1.00	42	-	100.00	100.00
Lebanon	5	6	5.50	21	71.43	75.00	73.21
Lithuania	2	1	1.50	40	100.00	100.00	100.00
Mexico	4	8	6.00	19	7.55	12.50	10.02
Morocco	3	2	2.50	30	18.75	16.67	17.71
Netherlands	10	6	8.00	15	34.48	28.57	31.53
New Zealand	-	2	2.00	36	-	33.33	33.33
Norway	5	1	3.00	26	20.83	4.76	12.80
Poland	4	2	3.00	26	13.33	5.41	9.37
Portugal	9	19	14.00	11	40.91	59.38	50.14
Republic of Moldova	1	-	1.00	42	100.00	-	100.00
Romania	11	4	7.50	16	55.00	22.22	38.61
Singapore	2	3	2.50	30	25.00	30.00	27.50
Slovakia	5	3	4.00	23	71.43	100.00	85.71
Slovenia	2	1	1.50	40	20.00	33.33	26.67
Spain	53	41	47.00	4	37.32	27.33	32.33
Sweden	na	16	16.00	10	cna	34.78	34.78
Switzerland	15	24	19.50	8	50.00	63.16	56.58
Turkey	5	4	4.50	22	17.86	11.43	14.64
United Kingdom	67	57	62.00	2	63.21	53.27	58.24

Notes: na: not available
 (-): magnitude nil or negligible

Table A16. Balance consumed by country of origin

Criteria	HHI on the market shares of the five main origins				Market Share			Market Share			Market Share			Criteria
	2005	2006	Mean 05-06	Rank 05-06	2005			2006			Mean 05-06			
Country					National	US	Others countries	National	US	Others countries	National	US	Others countries	
Australia	6715	7430	7072	28	2.8	81.2	16	4.6	85.9	9.5	4	84	13	2
Austria	5715	6116	5915	22	2.7	75	22.3	2.6	77	20.4	3	76	21	1
Azerbaijan	8536	9258	8897	37	3	92.3	4.7	1.4	96.2	2.4	2	94	4	2
Brazil	6789	5810	6300	23	9.49	81.78	8.73	12	75	13	11	78	11	4 (based on the number of copies)
British Virgin Isl.	na	na	na	na	0	80	20	0	85	15	0	83	18	1
Cambodia	3029	3158	3094	6	50	5	45	50	15	35	50	10	40	3
Canada	7359	7790	7575	33	5.5	85.5	9	4.3	88.1	7.6	5	87	8	2
Chile	na	6314	6314	24	3.6	na	96.4	6.9	79.1	14	5	79	55	1
Costa Rica	9554	9718	9636	38	0	97.74	2.26	0	98.58	1.42	0	98	2	2
Croatia	6945	7348	7146	29	2.9	83.1	14	5.2	85.4	9.4	4	84	12	4 (based on the number of exhibited films)
Czech Republic	4266	4295	4280	14	25.1	60	14.9	30.1	58	11.9	28	59	13	
Denmark	4193	4094	4144	12	32	56	12	25	58	17	29	57	15	1
Estonia	6119	6694	6406	25	7.8	77.3	14.9	8.1	81.3	10.6	8	79	13	1
Finland	4384	4365	4375	15	15	63	22	23.9	61.1	15	19	62	19	1
France	3643	3991	3817	9	36.6	46.1	17.3	44.7	44.2	11.1	41	45	14	
Germany	5016	5004	5010	19	17.1	68.4	14.5	25.8	65.8	8.5	21	67	12	1
Hungary	5004	5737	5370	20	12.1	69.5	18.4	16.4	73.8	9.8	14	72	14	1
Iceland	7137	7277	7207	30	2.7	83.9	13.4	7.8	84.9	7.3	5	84	10	1
Ireland	na	na	na	na	1.16	na	98.84	4.5	na	95.5	3	na	97	
Italy	na	na	na	na	26	46	28	22.9	64.2	12.9	24	55	20	
Japan	2890	3042	2966	5	48.7	20.9	30.4	50.8	20.1	29.1	50	21	30	4 (based on the number of feature films exhibited)
Lao People's DR	1948	2631	2290	3	0	20	80	0	35	65	0	28	73	
Latvia	4041	3758	3900	10	2	63	35	2	61	37	2	62	36	4 (based on the number of films)
Lebanon	3387	3418	3403	7	5	49	46	10	51	39	8	50	43	2
Lithuania	6169	7430	6800	27	7	78	15	1	86	13	4	82	14	1
China, Macao SAR	1841	2076	1959	1	0	36	64	0.4	36.5	63.1	0	36	64	4 (based on the number of films exhibited in this region)
Malaysia	2454	2000	2227	2	5.75	42	52.25	7.36	34.87	57.77	7	38	55	4 (based on the number of films)
Mexico	7280	7280	7280	31	5	85	10	7	85	8	6	85	9	2
Morocco	3283	2594	2939	4	8	49	43	18	42	40	13	46	42	

Table A16. Balance consumed by country of origin (continued)

Country	HHI on the market shares of the five main origins				Market Share			Market Share			Market Share			Criteria
	2005	2006	Mean 05-06	Rank 05-06	2005			2006			Mean 05-06			
					National	US	Others countries	National	US	Others countries	National	US	Others countries	
Namibia	na	na	na	na	0	95	5	0	97	3	0	96	4	2
Netherlands	5728	5836	5782	21	13.16	74.42	12.42	11.31	75.42	13.27	12	75	13	2
Nigeria	na	na	na	na	50	20	30	70	10	20	60	15	25	4 (based on Audience preference)
Norway	4451	5071	4761	17	12	65	23	16	69	15	14	67	19	1
Poland	4103	3810	3956	11	3.38	63.14	33.48	15.86	58.45	25.69	10	61	30	2
Portugal	na	na	na	na	3	62	35	3	66	31	3	64	33	1
Republic of Moldova	7959	7610	7785	35	0	89	11	0	87	13	0	88	12	4 (based on the country of origin of the feature film)
Romania	7551	7802	7676	34	4.7	86.7	8.6	4.3	88.17	7.53	5	87	8	1
Saint Vincent and the Grenadines	na	na	na	na	0	100	0	0	100	0	0	100	0	4
Slovakia	6345	7217	6781	26	1.67	79.17	19.16	0.6	84.67	14.73	1	82	17	1
Slovenia	6724	8347	7535	32	2.4	81.9	15.7	0.9	91.3	7.8	2	87	12	1
Spain	4142	5378	4760	16	16.73	60.14	23.13	15.47	71.22	13.31	16	66	18	2
Sweden	4231	na	4231	13	22.6	59.8	17.6	18.8	65.4	15.8	21	63	17	
Switzerland	3669	3833	3751	8	5.9	58.2	35.9	9.5	59.7	30.8	8	59	33	1
Ukraine	4797	4891	4844	18	6	66	28	6	67	27	6	67	28	1
United States of America	7419	8236	7827	36	86.11	na	13.89	90.73	na	9.27	88	na	12	2

Notes: na : not available

Criteria 1: The number of admissions

Criteria 2: The number of box office receipts

Criteria 3: The amount of distributors' turnover

Criteria 4: Any other criteria

Table A17. Rank of national films in the top five by country

Rank of National Films	Year	Countries
First	2005	Brazil, Japan, Lithuania, Morocco, Rep. of Korea
	2006	Finland, France, Iceland, Morocco
Second	2005	Italy, Switzerland, Morocco, Rep. of Korea, Denmark
	2006	Morocco, Poland (co-production with The USA and Italy)
Third	2005	France, Hungary, Italy, Rep. of Korea
	2006	Brazil, Morocco, The Netherlands
Fourth	2005	Finland, Rep. of Korea, Denmark
	2006	Denmark, France, Germany, Hungary, Japan, Morocco
Fifth	2005	Estonia, Norway, Rep. of Korea, Denmark
	2006	Estonia, Japan, Denmark

Note: This table can be interpreted as follows: In the Republic of Korea, in 2005, a domestic film reached the first rank of the top ten as well as the second, the third, the fourth and the fifth rank.

Table A18. Balance distributed by country of origin

Criteria Country	Percentage (%) of nationally controlled distribution companies			Percentage of foreign-controlled distribution companies		
	2005	2006	Mean 05-06	2005	2006	Mean 05-06
Austria	47.83	37.50	42.66	52.17	62.50	57.34
Belarus	100.00	100.00	100.00	-	-	-
Brazil	80.00	79.31	79.66	20.00	20.69	20.34
Bulgaria	98.08	98.21	98.15	1.92	1.79	1.85
Chile	17.39	20.00	18.70	82.61	80.00	81.30
Costa Rica	100.00	100.00	100.00	-	-	-
Croatia	100.00	100.00	100.00	-	-	-
Cuba	100.00	100.00	100.00	-	-	-
Cyprus	cna	-	-	cna	100.00	100.00
Dominican Republic	cna	100.00	100.00	cna	cna	cna
Egypt	100.00	cna	100.00	-	cna	-
Estonia	75.00	80.00	77.50	25.00	20.00	22.50
Finland	54.55	54.55	54.55	45.45	45.45	45.45
Germany	93.67	94.38	94.03	6.33	5.62	5.97
Iceland	100.00	100.00	100.00	-	-	-
Ireland	42.86	42.86	42.86	57.14	57.14	57.14
India	100.00	100.00	100.00	-	-	-
Lao People's D.R.	100.00	100.00	100.00	-	-	-
Lebanon	53.85	57.14	55.49	46.15	42.86	44.51
Lithuania	71.43	66.67	69.05	28.57	33.33	30.95
Malaysia	100.00	100.00	100.00	cna	-	-
Mauritius	100.00	100.00	100.00	-	-	-
Mexico	68.75	70.59	69.67	31.25	29.41	30.33
Morocco	100.00	100.00	100.00	-	-	-
Namibia	-	-	-	100.00	100.00	100
Netherlands	64.29	64.29	64.29	35.71	35.71	35.71
Nigeria	97.12	97.12	97.12	2.88	2.88	2.88
Norway	cna	cna	-	cna	cna	-
Oman	55.56	55.56	55.56	44.44	44.44	44.44
Philippines	22.42	20.50	21.46	77.58	79.50	78.54
Poland	76.92	75.00	75.96	23.08	25.00	24.04
Portugal	81.82	86.67	84.24	18.18	13.33	15.76
Rep. of Moldova	100.00	100.00	100.00	-	-	-
Singapore	100.00	100.00	100.00	-	-	-
Slovakia	77.78	72.73	75.25	22.22	27.27	24.75
Slovenia	85.00	85.00	85.00	15.00	15.00	15.00
Spain	96.59	96.59	96.59	3.41	3.41	3.41
Sweden	cna	cna	-	cna	cna	-
Switzerland	90.70	91.30	91.00	9.30	8.70	9.00
Turkey	cna	cna	cna	cna	cna	cna
Ukraine	100.00	100.00	100.00	-	-	-

Notes: na: not available
cna: category not applicable
(-): magnitude nil or negligible