AN ANALYSIS OF THE BRAZILIAN

AUDIOVISUAL SECTOR

MPA
MOTION PICTURE ASSOCIATION
Audiovisual Entertainment
For Global Audiences

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DA INDÚSTRIA AUDIOVISUAL

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- ✓ The audiovisual industry (AV) comprises a sector that is inherently dynamic and innovative. Its organization has experienced several changes over the years, some of them abrupt and radical, due to the technological advances that have affected the production, the distribution and the consumption of entertainment. There is another change currently underway, brought about by the proliferation of internet access in conjunction with new resources that facilitate the production of digital content.
- ✓ In addition to content production, the value chain also encompasses its distribution in a variety of mediums, such as reproduction in movie theaters and film festivals, exhibition in open or paid television, and the sale and rental of physical mediums, such as DVDs and Blu-rays. These recent technological innovations have created other distribution alternatives, such as Video on Demand (VoD), offered by cable television companies or independent providers (e.g. Netflix).
- ✓ Production fragmentation is a striking characteristic of this industry, with certain tasks being outsourced to partners located all over the world. In addition to promoting greater production efficiency along the value chain, this paradigm favors entrepreneurship since the service providers comprise start-ups that have grown into small and medium businesses. Therefore, by creating a business environment that fosters entrepreneurship, governments can enhance the benefits resulting from integration into these global value chains.
- ✓ In most cases, local agents can benefit from cooperating with key international players, which have technological and financial resources, access to global distribution channels, and expertise to tailor the national productions to international audiences. On one hand, this cooperation allows for the incorporation of this expertise into local productions, mainly in terms of visual effects that require high-tech hardware. On the other hand, by associating with companies that operate globally, the local productions can reach much larger audiences, and obtain larger financial returns. Many Brazilian blockbusters over the last fifteen years have been the product of partnerships between domestic and foreign agents, both for production and distribution.
- ✓ The number of Brazilian productions began to increase in the 1990s, due to a large extent to the stimuli provided by public policies, such as tax exemptions for investments in the sector, participation or sponsorship. Despite the high level of activity of many national production and distribution companies, a significant portion of national films are still loss-makers. This situation indicates the need for adjustments in the current policies to make the sector financially sustainable in the long run.
- ✓ Brazilian films have a low penetration in the international market. Recent success stories also included the participation of foreign production and/or

distribution companies. The audiovisual sector's imports have grown in line with the rest of the economy, although exports have been stagnant, resulting in a trade deficit similar to that of other countries, such as Germany, Japan and Australia. When seen as a fraction of the total economy, this may seem insignificant, but the situation does warn of the need for greater integration of the Brazilian AV sector into the international market.

- ✓ Brazil has a low number of cinema screens compared to other countries. Furthermore, there is a high concentration of screens in the large cities, meaning that a substantial part of the population, which lives in small municipalities, has difficulty accessing them. The advent of digital reproduction technologies is a potential opportunity for the sector, as they improve the spectator experience and reduce logistics costs. However, substantial investment is required to adapt the existing screens to the new technologies, since only 31% of Brazil's cinema screens are currently digital, compare to 75% worldwide. Films in 35mm will soon no longer be available from the distributors, which could make a huge number of current screens obsolete, only serving to worsen the population's access to films in movie theatres. Public policies to foster the upgrading of screens are already in place, but the process has to occur over a short period of time.

- ✓ Although the average price of movie tickets in Brazil is lower than in other developed nations, it has risen recently. This behavior could be explained both by the appreciation of the local currency and by the increased labor and rent costs. The average ticket price as a fraction of the population's purchasing power (measured by the *per capita* income) is higher in Brazil than in some developed countries.

- ✓ The sales & rentals segment has spent the past decade in decline. It is affected by new audiovisual consumption mediums (in particular those that use the internet) as well as widespread piracy.

- ✓ The audiovisual sector was responsible for directly creating 110,000 <u>formal</u> jobs in 2012 (corresponding to 0.35% of all jobs in the service sector). This figure places the audiovisual sector on a similar level to the other relevant sectors of the economy, such as tourism, hotels and sports. The total payroll of the sector amounted to R$ 4.2 billion, with the average wage paid being higher than that for the services sector as a whole.

- ✓ Figures from Brazil's National Accounts for 2009 allow us to estimate the sector's value added at R$ 15.7 billion, equivalent to R$ 19.8 billion in 2013. This figure indicates that the sector was responsible for 0.57% of Brazil's GDP, a percentage that is comparable to that of other sectors, such as textiles, auto parts and pharmaceutical products. The indirect value added contributed to the economy amounts to R$ 11.9 billion.

- ✓ Direct tax revenues from the sector were approximately R$ 1.6 billion in 2009 (equivalent to R$ 2.1 billion in 2013), with the tax revenue created through the indirect impact in other activities reaching R$ 994 million.
- ✓ The audiovisual sector's multipliers for jobs and value added were calculated using the input-output methodology. These indicators are essential to estimate importance of the AV sector to the rest of the economy, as well as providing a valuable tool to assess the impact of public policies focusing on the sector. The multipliers were found to be high, compared to the rest of the services sector. In 2012, the AV industry indirectly created 120 thousand jobs, on top of the 110 thousand jobs directly created.
- ✓ Among the audiovisual sector's segments, those associated with open and paid television are of note, due to their significant revenues, number of jobs and average wages. The production sector is dynamic, accounting for a rising share of the sector's indicators, while the sales & rentals segment is in decline.
- ✓ Average household spending on entertainment in Brazil is relatively modest, but it grows significantly when one moves from the lower to the higher income brackets. In other words, more affluent households spend a greater share of their budgets on entertainment and culture. This indicates that the demand for the sector's products will increase rapidly in Brazil, should the household income increases observed over the past decade continue in the future.

1. Introduction

The audiovisual industry is one of the economy's most dynamic and innovative, being well positioned within the creative economy. The industry has been of significant interest to the Brazilian government and a variety of public policies were conceived to stimulate its development. . The objective of this paper is to collect and analyze the information that exists about the industry in a comprehensive way, thus contributing to a more informed debate on the industry's outlook in Brazil, as well as the policies that may come to affect it.

To these ends, Chapter 2 of this report will describe Brazil's audiovisual industry, laying out its main characteristics and the players involved. We then move on to a detailed description of its production chain, from content production to its distribution to consumers. The main objective is to acquaint the reader with specific attributes of this industry. We will also highlight the various content distribution channels, with a focus on digital mediums through the internet, which are showing impressive growth – a trend that will likely only grow stronger in the near future.

The subsequent chapter presents facts and figures about the AV industry in Brazil, such as the number of jobs it generates directly and indirectly[1], average wages, total payroll and employee profile for each segment of the industry. Information about the industry's production, value added, and foreign sales volumes will also be presented.

Chapter 4 outlines a brief history of how Brazil's production has evolved and a critical analysis of some regulatory frameworks that govern the industry. An upswing in national production is observed from the mid-1990s, coinciding with the drawing up of public incentive policies. On the one hand, this period witnessed the inception of tax-deductible financing mechanisms for national productions, in addition to public financing. Government agencies still comprise the main direct sponsors in various productions. On the other hand, regulatory agencies have taken steps to make mandatory the exhibition of national content in open and closed TV channels.

In the light of the previous points, chapter 5 discusses the main challenges to the development of the AV industry in Brazil, presenting the conclusions as a brief summary.

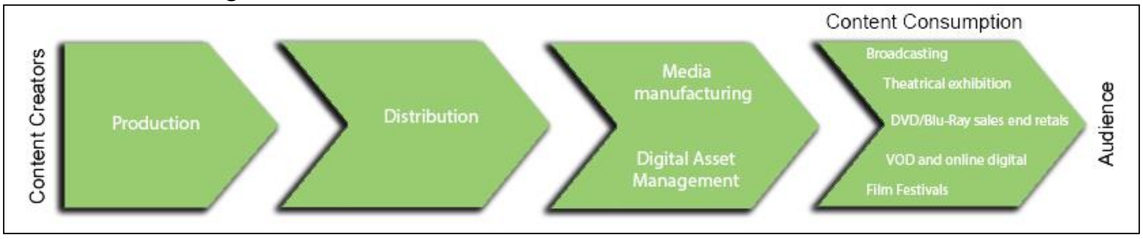
[1] Input-output techniques were applied to investigate how the AV sector impacts the other sectors in the economy, in terms of input demand and supply. A matrix is used to derive the industry's multipliers that, in turn, allow for the impacts of shocks or related policies to be estimated. Details can be found in Appendix I.

2. Description of the film and television chain

This chapter will briefly describe the AV value chain, with an emphasis on TV and movie productions. Over the course of its evolution, the industry has gone through periods of radical transformation, such as the advent of sound films, television and domestic film reproduction devices (such as VCR, DVD and Blu-Ray players), to name a few landmarks. These events dramatically changed the industry, creating opportunities for both new and incumbent players.

In Brazil, the AV industry structure comprises production, distribution and consumption of AV contents[2]. Recent changes introduced by the dissemination of digital technology (such as broadband internet, satellite TV, internet-ready devices and game consoles) are reshaping the sector, and the figure below represents the current organization of the AV industry in Brazil.

Figure 1. Basic structure of the film and television chain



Developed by Tendências based on Nordicity (2013).

In general, the AV production chain works in the following manner: large, international and/or independent studios produce contents (such as films or TV programs) that are, in turn, disseminated for exhibition in theatres by distributors. In most cases, exhibition in theaters is the first distribution channel, followed by the release for sale/rental through physical media (DVD, Blu-Ray), Pay-per-View (PPV), Video-on-Demand (VoD) and other mediums. Lastly, the film is shown on open and Pay TV[3]. Some productions, most notably miniseries and soap operas, are conceived specifically for exhibition on TV or other mediums.

The television market – which includes both free and paid (subscription) channels – works in much the same way: the broadcaster, which in some cases produces a given program, is the first to exhibit it. Afterwards, the program can be rerun on other channels (such as specialized channels) and, if the program is particularly successful, it can be released for sale/rental in physical media or through VoD services.[4] Brazilian TV

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[2] This structure is similar to the one observed in other countries, like Canada. See Nordicity (2013). *The economic contribution of the film and television sector in Canada.* Available at: <http://mpa-canada.org/downloads/MPA-Canada_Nordicity-Report_July-2013_English.pdf>. Accessed on: 28/11/2013.

[3] Alternative release patterns are emerging with the dissemination of new forms of consumption of AV contents. This topic will be addressed later in this report.

[4] The diffusion of digital mediums has shortened the "release window", the industry jargon for the time between a film being released in theaters and its availability in other mediums. Another trend, facilitated by the possibility of digital content reproduction in theatres or homes, is the considerable reduction in the

broadcasters have a long tradition and proven track record of producing *novelas* (soap operas) and miniseries, which are distributed internationally.

The advent of new technologies brings with it more alternatives to consume AV content. Consumers can choose, for example, to watch films in theatres, on television, through the internet (online streaming, such as *Netflix* and *iTunes*) or via rentals. This proliferation of mediums, in addition to lowering prices, also improves the consumer experience, and promotes market growth by reaching broader audiences in more convenient ways.

Production fragmentation is a striking characteristic of this industry, with certain production tasks being outsourced to expert partners located all over the world. In addition to promoting greater production efficiency along the value chain, this paradigm favors entrepreneurship due to fact that service providers comprise some start-ups that have grown into small and medium businesses. To some extent, this process is taking place in all markets, and Brazil is no exception. The domestic production process has benefited from the cooperation with partners of different sizes, based both in Brazil and abroad.

Local agents can also benefit from cooperating with key international players, which have technological and financial resources, access to global distribution channels, and expertise to tailor the national productions to international audiences. On one hand, this cooperation allows for the incorporation of this expertise into local productions, mainly in terms of visual effects that require high-tech hardware. On the other hand, by associating with companies that operate globally, the distribution of local content can reach much larger audiences, and obtain greater larger financial returns for the production companies. Many Brazilian blockbusters over the last fifteen years have been the product of partnerships between domestic and foreign players, both for production and distribution (see Box 1).

This increased market internationalization, which actually affects the surroundings and increases the variety of available content, is only possible thanks to the new forms of distribution and exhibition. The penetration of satellite TV and broadband internet can enlarge audiences, encourage production in countries other than the U.S. and, at the same time, reach market niches all over the world. However, the benefits of this arrangement can be fully achieved only if the production and consumption capabilities are in place. Consumers need to have mediums through which to access these contents, from digital movie theatres to fast internet connections. National production companies, for their part, will have to produce digital contents in order to be part of the global value chain. Co-productions are an effective manner to achieve this second objective.

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delay between a film's release in mature and emerging markets. In some cases, releases take place simultaneously in all countries.

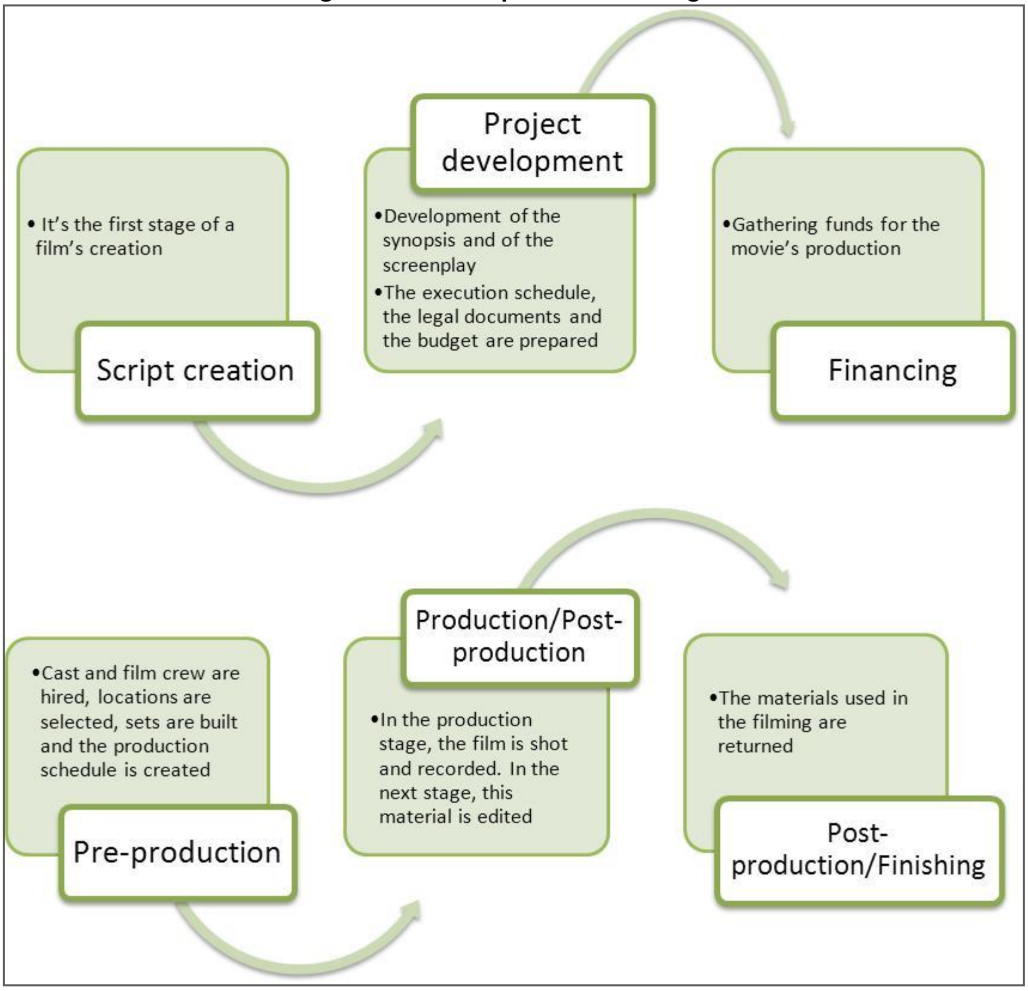
The steps involved in content creation (including financing, pre and post production), distribution and consumption (exhibition in various mediums) will be analyzed separately in the following subsections.

2.1. Production

Production can be defined as the act of transforming scriptwriters' and directors' ideas into concrete projects. This segment comprises the creation of content creation for cinema and television.

According to Rodrigues (2007)[5], producing a film usually involves substantial initial investments to hire and maintain a relatively extensive and specialized technical team, and can be divided into the production stages below:

Figure 2. Film production stages



Source: Rodrigues (2007). Developed by: Tendências.

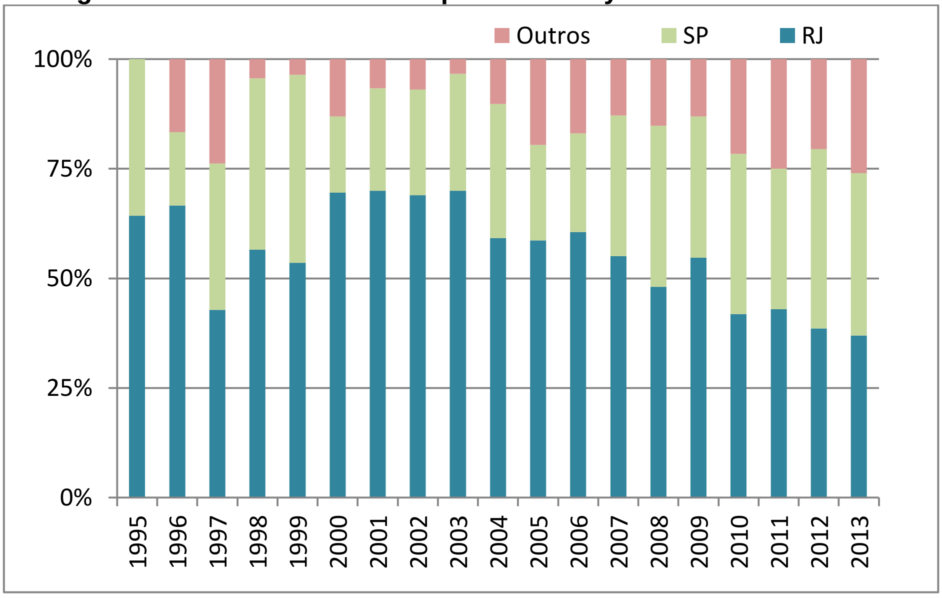
In this context, the production company plays a central role in the creation of media contents, as it is the part responsible for making the technical and functional work feasible, as well as, for financing the production in some cases.

[5] Rodrigues, C. (2007). *O cinema e a produção.* 2nd edition. Lamparina.

The national film production market is fragmented[6], featuring hundreds of independent production companies[7], with the vast majority having low market share (of the 436 production companies in Brazil, 287 – accounting for 65.8% of the total – have released only one film). The market also features larger players, such as Globo Filmes, O2 Filmes, Diler & Associados, Zazen Productions, and the major international studios[8], which are responsible for a wide spectrum of productions[9]. Most of the Brazilian blockbuster productions that enjoyed public acclaim in Brazil and abroad were produced by consortiums of production companies, which included the participation of international studios at the production and/or distribution stages (see Box 1).

Regarding the geographical distribution of the industry in Brazil, the chart below shows that it is concentrated in the states of Rio de Janeiro and São Paulo. Considering the number of films produced in each state, for the period 1995-2013, Rio de Janeiro and São Paulo accounted for 51.1% and 32.2%, respectively, of the total number of films produced in the country[10]. Nevertheless, the share of the other states has grown recently.

Figure 3. Distribution of film production by State — 1995 to 2013



Source: OCA/ANCINE. Developed by: Tendências.

2.2. Distribution

Once the production is finished, the distribution phase begins. The distribution segment comprises diffusion through theatres, TV and other mediums, in addition to sales and

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6 According to figures from ANCINE (2012), there are 436 national production companies operating in Brazil. Available at <http://oca.ancine.gov.br/producao_.htm>. Accessed on 14/01/2014.
7 Companies with no direct links to television broadcasters (analog broadcasting and Pay TVchannels).
8 The main production companies are *20th Century Fox*, *Sony/Columbia Pictures*, *Dreamworks*, *Paramount*, *Walt Disne/ Pixar*, *Metro-Goldwin-Mayer (MGM)*, *Miramax*, *Universal Pictures* and *Warner Bros.*
9 Most of the Brazilian blockbuster productions that enjoyed public acclaim in Brazil and abroad were produced by consortiums of production companies, which included the participation of international studios. See Box 1.
10 Among the other states, the Rio Grande do Sul accounted for 4,4% of the national productions.

rentals of DVDs and Blu-rays. The distributors are responsible for dispatching the original copies (in physical or digital media) to the agents responsible for disseminating the content to consumers, as well as promotion and advertising of the production.

There is another step involved in the chain for physical media. Media manufacturing is responsible for duplicating the original masters into formats destined for consumers, such as the creation of DVDs, Blu-rays and film negatives for exhibition in movie theatres. In addition, the advent of digital content dissemination has made the role of digital asset management increasingly important. This agent is responsible for codifying digital copies of films and television shows, as well as the transmission of these copies to digital movie theatres or online digital services[11].

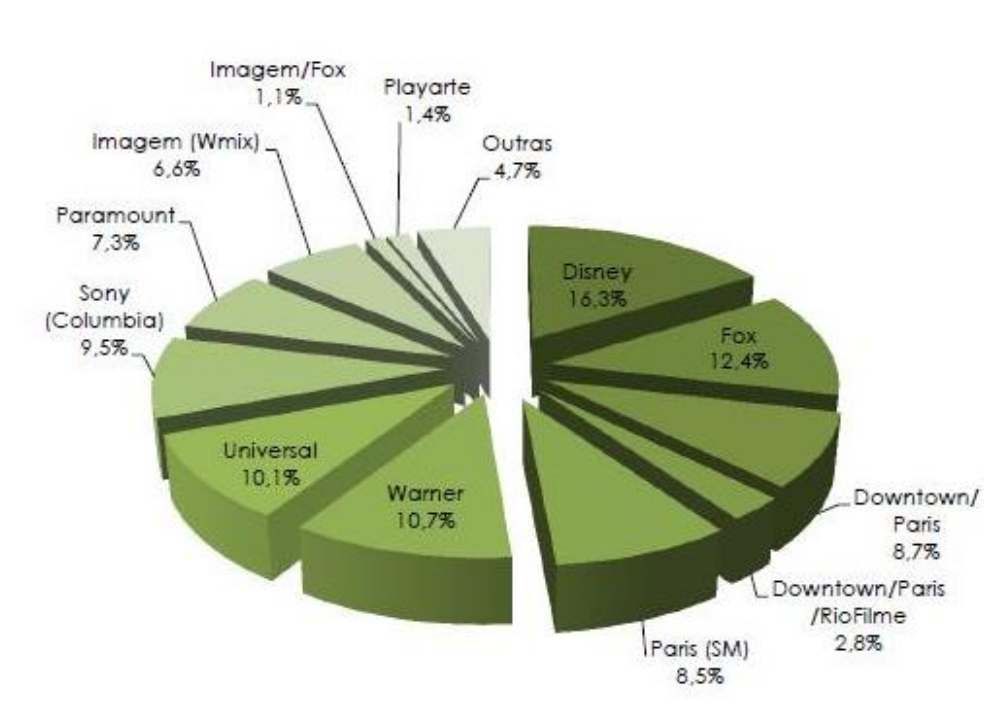
According to ANCINE[12], there were 79 companies (national, international and partnerships/co-distributors) in the market for exhibition in movie theatres in 2012. Similar to the production segment, there are national and foreign players operating in the Brazilian market. The top national distributors[13] are Paris Filmes, Panda Filmes, Pandora Filmes, NOSSA Distribuidora and Riofilme. These companies distribute national and international productions in the Brazilian market, although some of them focus on specific niches. For example, Pandora Filmes concentrates on alternative movies, usually European productions. RioFilmes is a division of Rio de Janeiro's Secretary of Culture, and acts as an advocate for the state's audiovisual industry. NOSSA Distribuidora was founded as a joint venture of production companies Conspiração Filmes, Lereby, Mobz, Morena Filmes, O2 Filmes, Vinny Filmes and Zazen Produções.

According to the 2013 Statistical Yearbook of Film in Brazil[14], national distributors had R$ 538.6 million in revenues for the distribution of films (representing 32% of the total box office), and were responsible for 80% of films released in the country in that year. Furthermore, these companies were also responsible for the distribution of 92% of national films.

Below are the distributors' market shares by revenue – national and international – in Brazil, for 2013:

[11] Nordicity (2013).
[12] Available at: < http://oca.ancine.gov.br/distribuicao.htm>. Accessed on: 14/01/2013.
[13] See Box 1.
[14] Available at: <http://oca.ancine.gov.br/informes-anuais.htm > Accessed on: 30/01/2014.

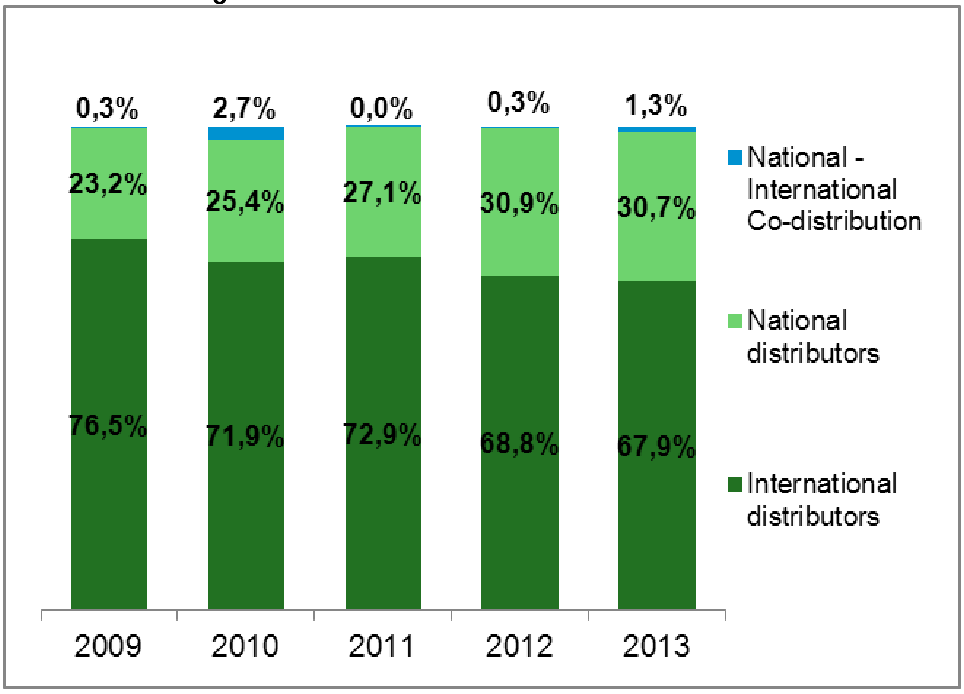
Figure 4. Distributor market share by revenue



Source: 2012 Statistical Yearbook for Brazilian Cinema (ANCINE)

Although the major international distributors account for the larger share of the Brazilian market, the participation of the national distributors has been consistently increasing over time, reaching 30,7% in 2013 (from 23,2% in 2009).

Figure 5. Market share evolution



Source: OCA/ANCINE. Developed by: Tendências.

BOX 1: Production and distribution collaboration with foreign studios

A common practice in this market is the co-production and co-distribution of media content by two or more companies.

International co-production can be defined as the combined work undertaken by production companies in different countries to produce a movie, for example. There are several advantages of co-producing films, according to Hoskins et al (1996)[15]. Among them, one can mention (i) greater ease in raising financial resources; (ii) access to government incentives and subsidies from each production company's country; (iii) access to each other's expertise in producing (and distributing) movies to target particular audiences[16]; and (iv) the ability for each partner to focus on tasks in which they have greater expertise.

Brazilian productions have benefited from this process, having participated in international co-productions with a variety of countries[17]. The table below presents the number of co-productions by Brazilian companies between 2005 and 2012, as well as the kind of partnership (majority, equal or minority):

Figure 6. International co-productions with Brazilian production companies

Production Year	Quantity	Brazilian Partnership		
		Majority	Equal	Minority
2005	5	3	-	2
2006	10	6	1	3
2007	10	3	2	5
2008	17	6	2	9
2009	11	5	1	5
2010	14	4	1	9
2011	23	11	-	12
2012	13	5	1	7
Total	**103**	**43**	**8**	**52**

Source: ANCINE (http://oca.ANCINE.gov.br/coproducoes_internacionais.htm). Developed by: Tendências.

The number of international co-productions in which Brazilian companies are involved has grown slowly over the years: from 5 co-productions, in 2005, to 23 and 13, for 2011 and 2012, respectively.

[15] Hoskins, C., McFadyen, S. and Finn, A. (1996). *A Comparison of domestic and international joint ventures in Television Program and Feature Film Production*. Vol. 21, nº 1. Canadian Journal of Communication. Available at: <http://www.cjc-online.ca/index.php/journal/article/view/924/830> Accessed on 01/14/2014.

[16] According to the authors, it is likely that the partner company enjoys greater knowledge of the distribution process in its domestic market and better connections with key companies. Furthermore, the partner company has greater knowledge of its country's viewer demands and so can ensure that these characteristics are present in the program.

[17] The following countries were involved in international co-productions for the period 2005-2012: Argentina, Bolivia, Canada, Chile, Colombia, Cuba, Denmark, England, France, Germany, Hong Kong, Hungary, India, Italy, Japan, Mexico, Mozambique, Peru, Portugal, Spain, the US, Uruguay and Venezuela.

To encourage this practice, the Brazilian government maintains bilateral agreements with various countries, facilitating the process and providing incentives. These agreements have been established with Germany, Argentina, Canada, Chile, Spain, France, India, Italy, Portugal and Venezuela[18]. Brazilian production companies can also establish partnerships with companies from countries with which no agreement is in place, although this requires that two thirds of the artists and technical staff be Brazilian nationals or residents (for more than three years), and the partnership agreement must guarantee that at least 40% of the ownership rights are held by the Brazilian party[19]. Furthermore, there are certain criteria in place for international co-productions to be recognized as Brazilian and be able to use public resources. These are present in Executive Order 2,228-1 (of September 6, 2001) and in ANCINE Normative Ruling 106 (of July 24, 2012).

Co-distribution is based on the same principle as co-production: distributors establish a partnership to distribute media content. A brief overview of the ANCINE figures shows that co-distributions between Brazilian and international companies comprise an insignificant number of all the titles released in the Brazilian market. Between 2009 and 2012, only six films were released as co-distributions, out of a total of 1,284 – accounting for less than 1% of the total.

On the other hand, co-distributions among national companies seem to be very common. According to the 2012 Statistical Yearbook for Brazilian Cinema[20], the partnership between Paris, Downtown and RioFilmes was responsible for 63.7% of revenues of Brazilian films.

Below are the top 15 Brazilian films, by box office, released between 2001 and 2012. It is worth noting that the majority of Brazil's blockbusters were co-produced and/or co-distributed, including agreements with foreign companies.

[18] Information available at: <http://ANCINE.gov.br/legislacao/acordos-internacionais/acordos-bilaterais> Accessed on: 14/01/2014.
[19] Information available at: <http://www.ANCINE.gov.br/sala-imprensa/noticias/coprodu-o-internacional-o-que-e-como-fazer> Accessed on: 14/01/2014.
[20] See footnote 14.

Brazilian films released between 2001 and 2012

Top 15 Box Office - 2001 to 2012				
Title	Production	Distribution	Year	Audience
Tropa de Elite 2	Globo Filmes, Feijão Filmes, Riofilmes, Zazen Produções	Riofilmes	2010	11.146.723
Se eu fosse você 2	Globo Filmes, Lereby Productions, Total Entertainment	20th Century, Fox Filmes	2009	6.112.851
Dois Filhos de Francisco	Columbia TriStar, Conspiração Filmes, Globo Filmes, ZCL Produções Artísticas	Columbia Tristar, Sony Pictures	2005	5.319.677
De pernas pro ar 2	Downtown Filmes, Globo Filmes	Paris Filmes	2012	4.846.259
Carandiru	BR Petrobrás, Columbia TriStar, Globo Filmes, HB Filmes, Lereby Productions, Oscar Kramer	Columbia Pictures	2003	4.693.853
Nosso Lar	Cinética Filmes, Globo Filmes, Migdal Filmes	Fox Filmes	2010	4.060.304
Se eu Fosse Você	Total Entertainment, Espaço/Z, Fox Filmes, Globo Filmes, Lereby Productions, Quanta Centro de Produções, Teleimage	20th Century, Fox Filmes	2006	3.644.956
De Pernas pro Ar	Downtown Filmes, Globo Filmes, Morena Films, Paris Filmes	Downtown Filmes, Paris Filmes	2011	3.506.552
Chico Xavier	Globo Filmes, Lereby Productions	-	2010	3.413.231
Cidade de Deus	O2 Filmes, VideoFilmes, Globo Filmes, Lumiere, Wild Bunch, Hank Levine Film, Lereby Productions	Imagem Filmes	2002	3.370.871
Até que a Sorte nos Separe	Globo Filmes, Gullane Filmes	Paris Filmes	2012	3.324.727
Lisbela e o Prisioneiro	Estúdios Mega, Globo Filmes, Natasha Filmes	20th Century, Fox Filmes, Natasha Filmes	2003	3.174.643
Cazuza - o Tempo Não Para	Cineluz, Globo Filmes, Lereby Productions	Columbia TriStar	2004	3.082.522
Olga	Europa Filmes, Globo Filmes, Lumière, Nexus Cinema e Vídeo	Elo Audiovisual, Lumière, Europa Filmes	2004	3.078.030
Os Normais	Globo Filmes, Lumière	Europa Filmes, Lumière	2003	2.996.467

Source: IMDb. Developed by: Tendências.

2.3. Audiovisual content consumption

Audiovisual content consumption segment basically comprises: exhibition theatres, television, sales and rentals of DVDs/Blu-rays and, more recently, digital content.

Exhibition

The exhibition market refers to the presentation of films in movie theatres. According to ANCINE[21], approximately 149.5 million tickets were sold at box offices in 2013 in Brazil, with estimated revenues of R$ 1.7 billion, for national and foreign films.

In addition, ANCINE figures show that there are 2,679 cinema screens throughout the country, mainly located in its large cities. The table below provides the percentage of municipalities, by population size, with at least one screen

[21] Information available at: <http://oca.ancine.gov.br/dados-mercado.htm> Accessed on: 01/30/2014

Figure 7. Municipalities with a screen, by population size

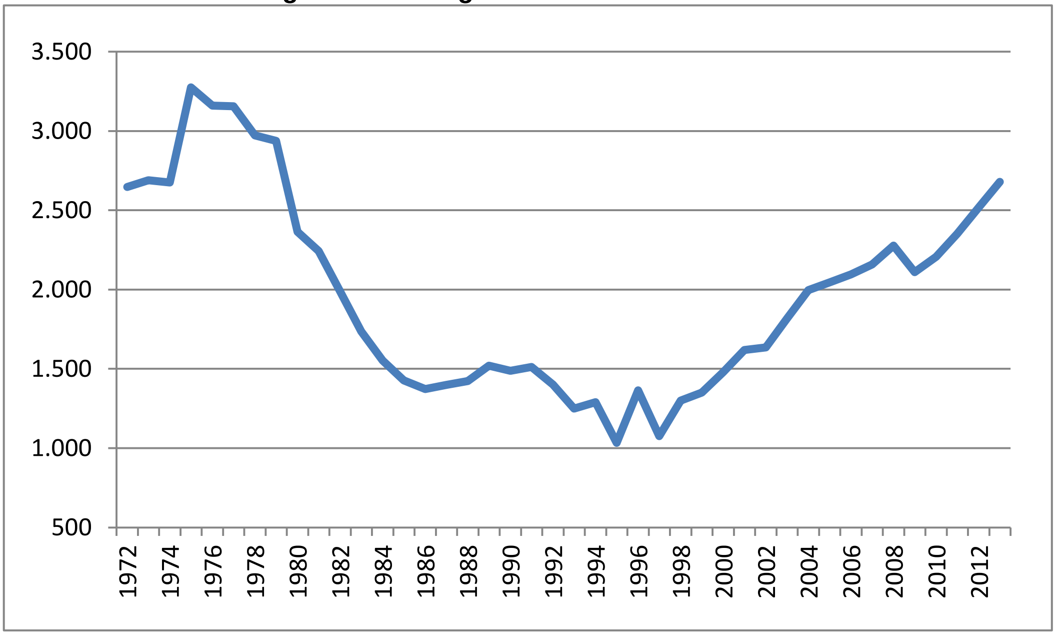
Population (thousands)	2007	2008	2009	2010	2011	2012
up to 50,000	2.0%	2.1%	1.8%	1.7%	1.7%	1.7%
50 to 100	35.8%	36.4%	33.2%	29.6%	31.2%	30.3%
100 to 500	68.2%	69.6%	62.7%	66.9%	68.2%	68.8%
More than 500	100.0%	100.0%	95.0%	100.0%	100.0%	100.0%
Total municipalities	7.2%	7.3%	6.8%	6.8%	7.0%	7.0%

Source: OCA/ANCINE. Developed by: Tendências.

According to the table, we can see that the number of municipalities with at least one screen remained relatively stable since 2007 for each of the population sizes, which indicates that the high concentration of screens in large has not been reverted. Looking at the 2012 figures[22], 58% of all screens were located in cities with more than 500,000 inhabitants.

In addition to policies that encourage the growth in the number of screens[23], the actual number of screens underwent significant expansion from the mid-1990s onward (see figure below). Despite these trends, Brazilians still have very restricted access to cinemas, which are concentrated in its large cities.

Figure 8. The growth of screens in Brazil



Source: OCA/ANCINE. Developed by: Tendências.

International figures on the number of screens per inhabitant points to the same conclusion: the number of screens available in Brazil is relatively low. The number of screens per 100,000 inhabitants for selected countries in 2011 is shown below. These figures were taken from the UNESCO website[24].

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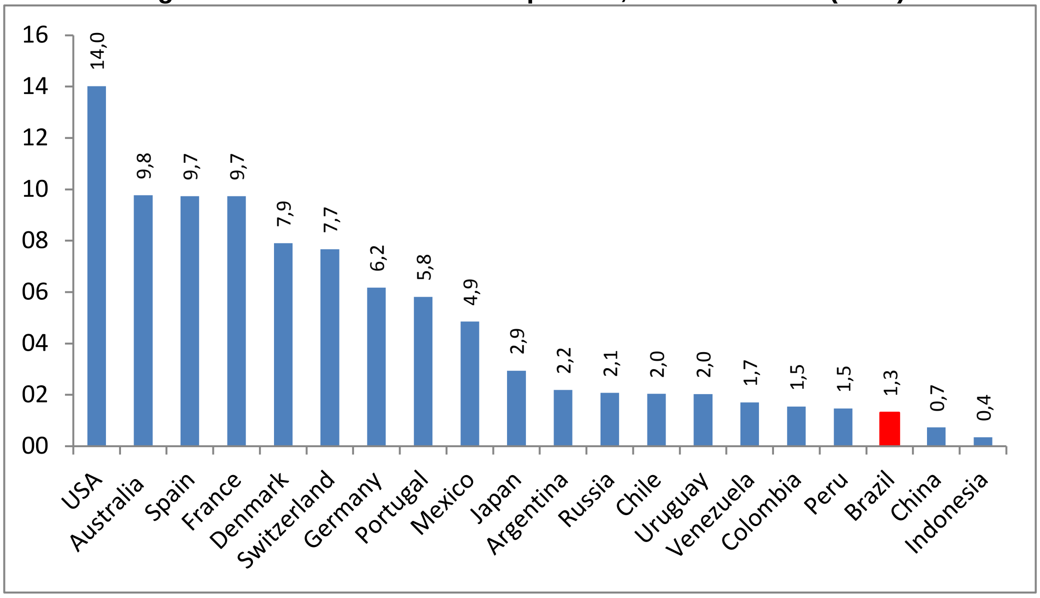
[22] Available at: <http://oca.ancine.gov.br/exibicao.htm>. Accessed on 30.01.14.
[23] See subitem 4.1.
[24] Information available at:
<http://stats.uis.unesco.org/unesco/TableViewer/tableView.aspx?ReportId=5542&IF_Language=eng>. Accessed on 16.01.14.

Figure 9. Number of screens per 100,000 inhabitants (2011)



Source: UNESCO. Developed by: Tendências.

The US is top ranked, with 14 screens per 100,000 inhabitants, followed by Australia (9.8) and Spain (9.7). Brazil (1.3), on the other hand, has one of the lowest rates of the countries in the study. We can note that this ratio is low even when compared to its South American neighbors, such as Argentina (2.2), Chile (2.0), Uruguay (2.0), Venezuela (1.7) and Peru (1.5).

A simple exercise was performed to demonstrate this lack of access to screens in Brazil. Using the full list of the total number of screens by municipality size in 2012 (according to ANCINE[25]) and the population estimates for each municipality (calculated by the IBGE[26]), we deduced the number of inhabitants in municipalities without any screens. The result shows that 100,156,950 Brazilians – or 51.6% of Brazil's total population of 193,946,886[27] – live in a municipality with no screen. According to the Preliminary Annual Report[28] on exhibition screens, ANCINE estimates that the percentage of Brazil's inhabitants with access to a screen is approximately 53.3% of the total population, a figure that resembles our own calculation.

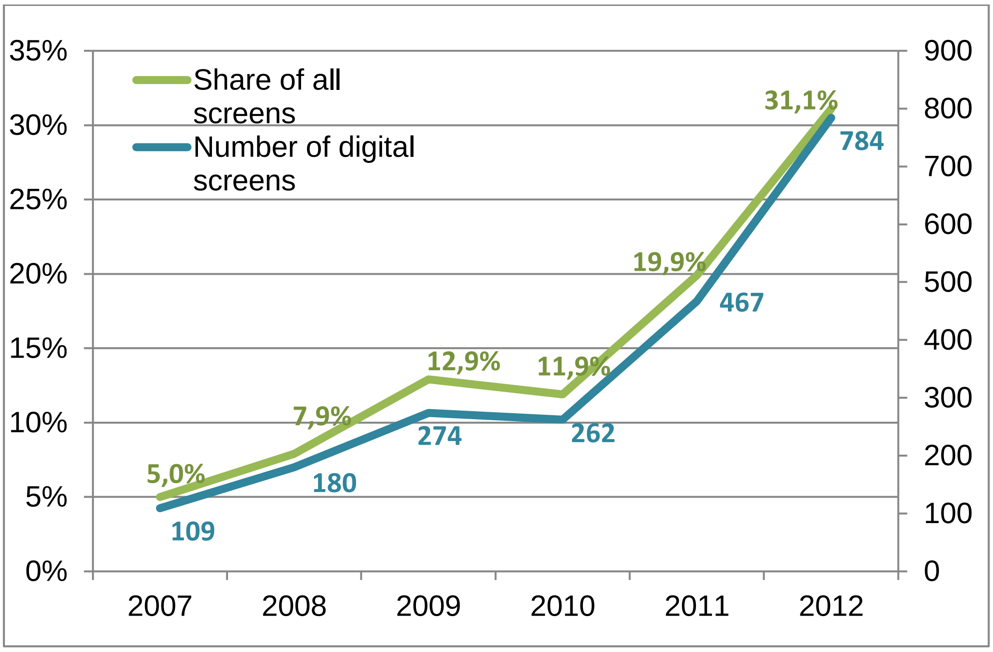
In addition to limited access to cinema screens, Brazil's capacity for exhibiting digital films is still limited, although this figure is on the rise. In addition to better image and sound quality, digital films allow for savings in production and transport logistics (relative to traditional 35 mm film). According to a BNDES Industry Report[29], the

[25] Available at: < http://oca.ancine.gov.br/exibicao.htm>. Accessed on: 06/12/2013.
[26] Available at: <http://www.ibge.gov.br/home/estatistica/populacao/estimativa2012/>. Accessed on: 09/12/2013.
[27] It is important to note that this calculation underestimates the population's access to cinema screens, due to not factoring in citizens making use of screens in neighboring municipalities. Even so, it corroborates the argument that Brazil's population suffers low access to cinema screens.
[28] Available at <http://oca.ancine.gov.br/media/SAM/Informes/2013/Informe_anual_preliminar_2013-Publicado_em_15-01-14-SAM.pdf: 30/01/2014.
[29] Mello, G.; Goldenstein, M.; Ferraz, R. O Audiovisual brasileiro em um novo cenário. BNDES Setorial nº 38, p.291-328. Rio de Janeiro (October/2013).

major studios announced that they will stop distributing film copies and switch to a purely digital copy model from 2015 on.

According to ANCINE, in 2012, the proportion of cinema screens with the capacity to exhibit digital copies corresponds to a mere 31.1% of all screens, as shown in the chart below[30]. This percentage has grown rapidly over the last few years, due to the conversion of existing screens as well as the construction of new theaters. Brazil is behind other countries, since 75% of the screens worldwide were capable of exhibiting digital content at the beginning of 2013[31], highlighting the need for substantial investments to upgrade the theaters.

Figure 10. Growth in the number of digital screens and the respective share (%) of all screens in Brazil - 2007 to 2012



Source: UNESCO and ANCINE. Developed by: Tendências.

Another noteworthy issue regards ticket prices. Brazilian legislation grants privileges to a variety of groups (such as the right to half-priced tickets to students, the elderly and public school teachers). Often, the eligibility checking mechanisms are loose and stimulate opportunistic conduct. The effect is that the service becomes more expensive for the non-privileged groups, who end up subsidizing the others[32].

The following charts present the average movie ticket price (in US$) for a group of countries. The effective average ticket prices in Brazil went from US$ 3, in 2005, to US$ 6, in 2011, overtaking Mexico on the way. They are also expensive when compared to the *per capita* income in Brazil, although they have become less so over the last few years, due mainly to increased income and exchange-rate devaluation.

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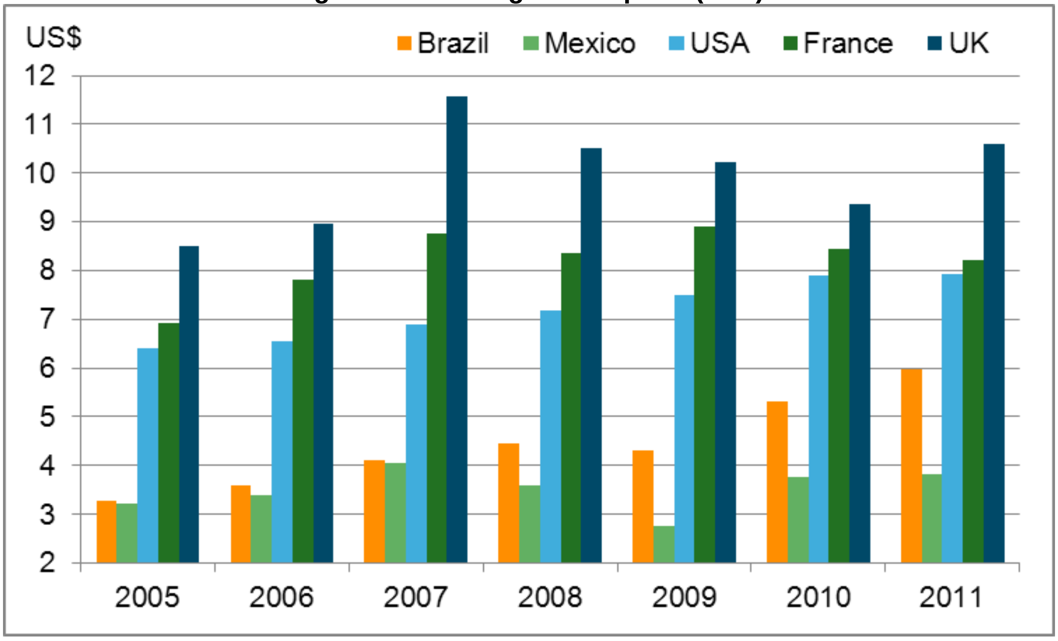
30 Information available at: <http://issuu.com/oca_ANCINE/docs/anuario_2012> Accessed on: 01/16/2014.

31 The source of this figure is *Media Salles*. Penetration of this technology, in Europe, stands at 70% of the screens. Some countries, such as the Netherlands, Norway and Luxemburg, have reached 100%.

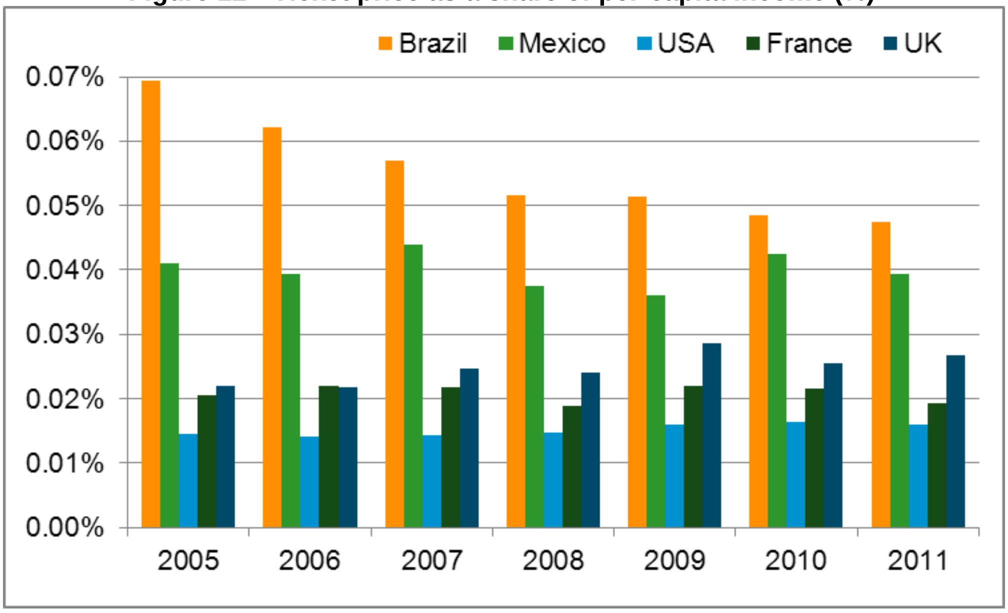
32 Although the box office revenues are harmed, the effect on attendance is ambiguous, depending on the price-sensitivity of the privileged and non-privileged.

Figure 11. Average ticket price (US$)



Source: UNESCO. Developed by: Tendências.

Figure 12. Ticket price as a share of per-capita income (%)



Source: UNESCO. Developed by: Tendências.

Television

Brazil's television subsector comprises the broadcasting of audiovisual content to television viewers through open or Pay TV transmissions. According to data from consultancy Teleco[33], the penetration of television sets in Brazilian homes has increased in the past few years, reaching 97.2% of all homes in 2012, as can be seen in the following table.

[33] Information available at: <http://www.teleco.com.br/pnad.asp> Accessed on: 01/14/2014.

Figure 13. Penetration of television sets in Brazilian homes

Year	% of homes with at least one television set
2005	91.4%
2006	93.0%
2007	94.5%
2008	95.1%
2009	95.6%
2010	95.0%
2011	96.9%
2012	97.2%

Source: Teleco. Developed by: Tendências.

Concerning the effective audience figures in the television segment, a study by the IBGE[34] shows that Brazilians watch, on average, 2 hours and 35 minutes of television per day. This extent can vary according to age, with those between the ages of 10-24, for example, watching an average of 2 hours and 36 minutes, while the over 60s watch an average of 3 hours and 3 minutes[35].

The figures for Pay TV services also reveal increased demand lately. According to the Brazilian Pay TV/Telecom Association (ABTA)[36], access to Pay TV went from 3.5 million homes in 2003, to 17 million homes in 2013, representing a total of 55 million Brazilians with access to Pay TV. The advent of digital broadcasting in some Brazilian locations, with the constant expansion of its coverage, allows for access to more consumers, with new possibilities made possible by this technology.

In terms of supply, the association estimates there are approximately 220 channels available in the Brazilian market, accounting for operational revenues of R$ 7.1 billion over the second quarter of 2013.

Sales and rentals

The sales and rentals subsector comprises those companies whose main activity consists of selling and/or renting DVDs, Blu-rays and other audiovisual content media to consumers. Over recent years, both sales and rentals of physical media have undergone a significant decline, being partially substituted by new business models (internet streaming, PPV, etc.). This segment has always being plagued by the widespread piracy of AV contents in Brazil, which promote unfair competition with legal businesses. This has become a more severe issue recently, since piracy has been facilitated by increased access to broadband connections (and peer-to-peer sharing), contributing to the fall in sales and rentals of content on physical media.

[34] Information available at: <http://oglobo.globo.com/infograficos/pesquisa-uso-do-tempo/> Accessed on: 01/14/2014.
[35] This study was undertaken in 5 Brazilian states (Pará, Pernambuco, São Paulo, Rio Grande do Sul and Distrito Federal) with a population of 10,092 homes, during fourth quarter of 2009.
[36] Information available at: <http://www.abta.org.br/dados_do_setor.asp>. Accessed on: 20/01/2014.

Film festivals

Film festivals have also become an important component in this industry's value chain. Although these do not represent large audiences or box-office revenues for the films, they are considered an important outlet through which producers can raise awareness about their movies[37].

According to the Statistical Yearbook from the Ministry of Culture[38], only 9.7% Brazilian municipalities declared they had film festivals in 2009, with Rio de Janeiro leading the group of states with municipalities that did (29% of its municipalities had film festivals).

[37] Nordicity (2013).
[38] Yearbook available at: <http://www2.cultura.gov.br/site/wp-content/uploads/2009/10/cultura_em_numeros_2009_final.pdf>. Accessed on: 04/02/2014.

3. Analysis of the Brazilian audiovisual industry

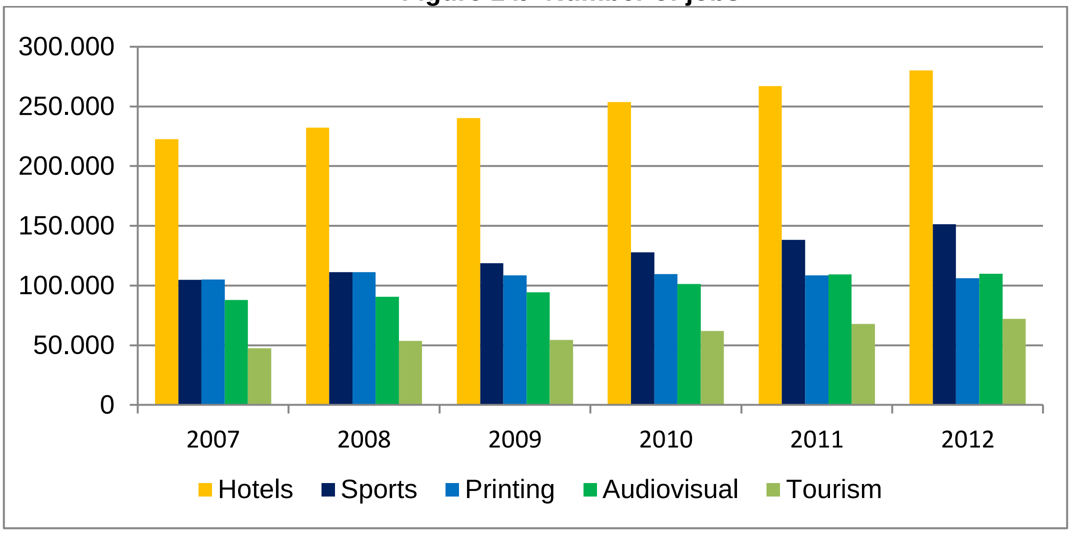
This chapter lays out descriptive information about the audiovisual industry in Brazil, with a focus on employment and wage figures. Household expenditure on entertainment and the foreign trade promoted by the audiovisual industry will also be investigated.

3.1. Employment, wages and payroll

According to the Ministry of Labor and Employment[39], the audiovisual industry accounted for approximately 110,000 formal jobs in December 2012, a figure that represents 0.33% of all formal jobs in the service industry, that year. These figures make the audiovisual industry similar (in terms of economic importance) to other traditional industries in the services sectors, such as printing, tourism, hotels and sports.

The following chart shows the employment evolution of the audiovisual industry and in the other benchmark sectors. Despite the 25% growth experienced by the AV industry (from 88,000 jobs in 2007 to 110,000 in 2012), the respective percentage of the total number of services jobs has remained stable. This pattern shows that the AV industry has grown in line with the rest of the services sector over this period. No other industry analyzed has demonstrated a significantly different performance in terms of its share of jobs in the services sector.

Figure 14. Number of jobs



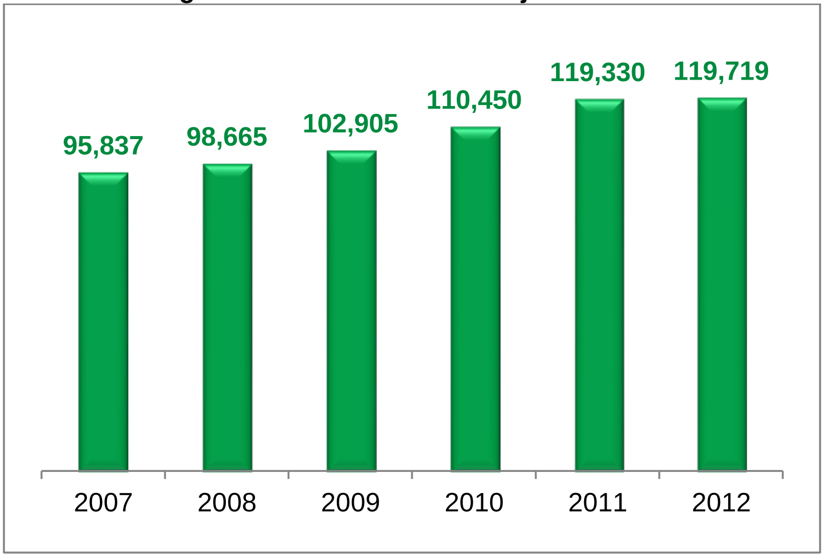
N.B..: Figures in brackets represent the percentage of the total service industry jobs
Source: MTE. Developed by: Tendências.

In terms of the indirect effect of the AV industry in terms of job creation, the estimated multiplier is 2.09[40]. This figure means that for each job created in the AV industry, 1.09 additional jobs are created in other sectors of the economy, due to the increased demand for inputs. The services sector average is 1.67 and the audiovisual sector comes in 4th place, among the highest multipliers in the services sector, which includes 17 industries.

[39] Only formal employment is included in these figures, obtained from official statistics. See Appendix II.
[40] This figure was obtained from the Input-Output Matrix (IOM). See Appendix I for the detailed methodology.

Figure 15 shows total positions indirectly related to AV activity in each year. In 2012, the AV sector created 119,000 jobs indirectly, on top of the 110,000 direct positions.

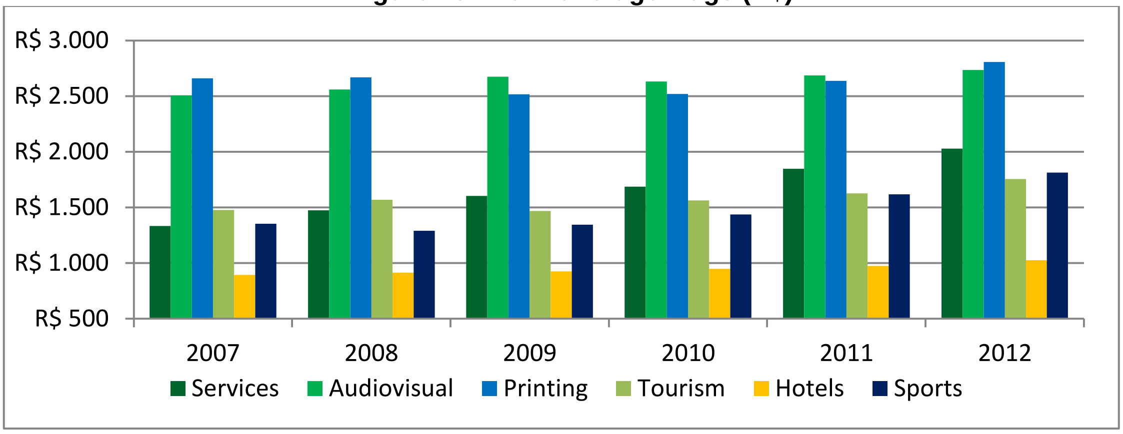
Figure 15. Indirect effect on job creation



N.B..: Total job positions on each year induced by audiovisual sector development
Source: MTE. Developed by: Tendências.

The average audiovisual industry monthly wage was higher than that of the other industries throughout the period, reaching to R$ 2,375/month in 2012. This compares to the average service industry wage of R$ 2,028, as shown in the following chart.

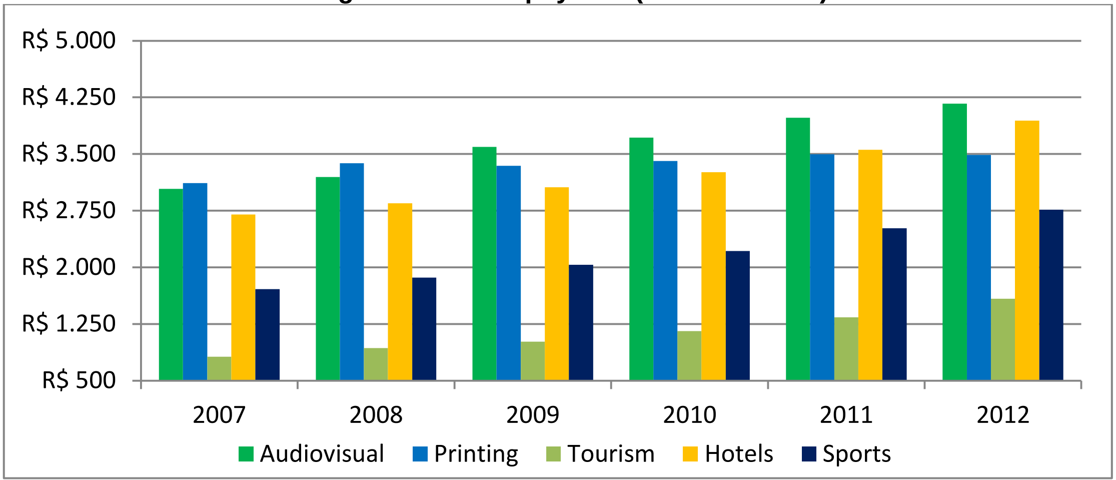
Figure 16. 2012 average wage (R$)



N.B..: Figures adjusted by IPCA/IBGE.
Source: MTE. Developed by: Tendências.

The AV industry also has the largest payroll in comparison to the other industries in the group. In 2012, the audiovisual industry was responsible for 0.52% of the total service industry payroll, compared to 0.20% for the tourism and 0.49% for the hotel industries. The total payroll in 2012 was close to R$ 4.2 billion, compared to a little over R$ 3 billion for 2007, with a total growth of 37% (in real terms). The following chart presents these figures in greater detail.

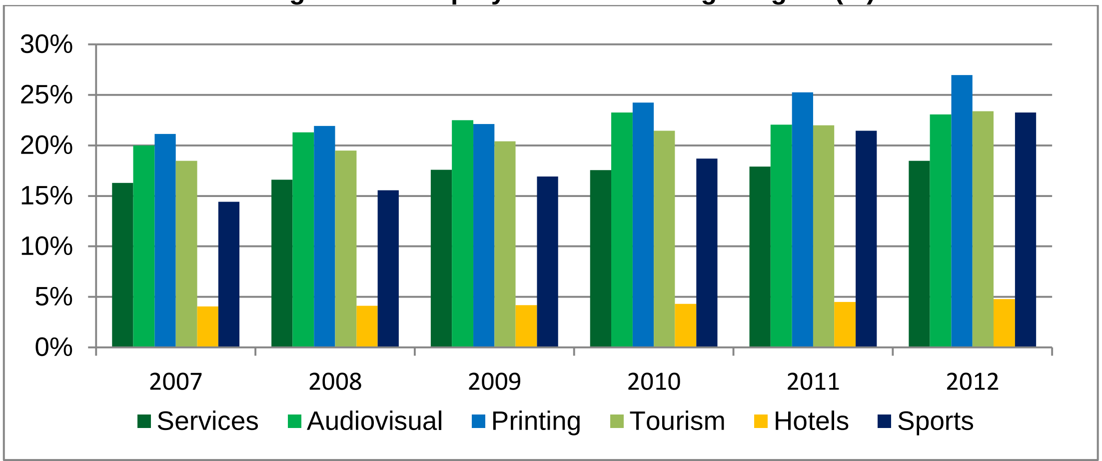
Figure 17. 2012 payrolls (R$ thousands)



N.B..: Figures in brackets represent the percentage of the total service industry figure Figures adjusted by IPCA/IBGE.
Source: MTE. Developed by: Tendências.

The following chart shows that 18.5% of employees in the services sector had a college degree in 2012, while the corresponding figure for the audiovisual industry being 23.1%, which is the second highest rate for that year.

Figure 18. Employees with a college degree (%)



Source: MTE. Developed by: Tendências.

Next, we will analyze each of the audiovisual industry's segments in more detail.

3.2. Value added, product and tax revenues

This exercise is based on the IOM and allows us to indirectly infer other attributes of the AV industry and its importance to the Brazilian economy.

The AV industry's gross revenues totaled R$ 34 billion[41] in 2009, while the value added reached R$ 15.7 billion[42], representing 0.57% of Brazil's GDP in that year[43]. Considering a multiplier of 1.76 for value added of the audiovisual sector, the indirect effects on the economy adds up to R$ 11.9 billion.

[41] Equivalent to R$ 42.8 billion adjusted for 2013 (using the IBGE's Broad Consumer Price Index).
[42] Equivalent to R$ 19.8 billion adjusted for 2013 (using the IBGE's Broad Consumer Price Index).
[43] This value added from the audiovisual sector is close to the *Bolsa-Família* (Family Allowance) Scheme for 2009.

Unfortunately, the official statistics do not allow for a direct calculation of the contribution toward tax revenues. However, an estimate of this figure from the IOM comes to R$ 1.6 billion[44]. With a multiplier of 1.59, the indirect contribution to tax revenues amounts to R$ 944 million.

The table below summarizes the direct and indirect contributions of the AV industry to employment, value added in the economy, and taxes collected.

Figure 19. Direct and indirect effects of the AV industry

	Employment (in thousands)	Value Added (in R$ billions)	Taxes (in R$ billions)
Multiplier	2.09	1.76	1.59
Year	2012	2009	2009
Direct	109.8	15.7	1.6
Indirect	119.7	11.9	0.9
Total	**229.6**	**27.6**	**2.5**

Developed by Tendências

Other measures can be obtained when we compare the value added by the audiovisual sector to that by other sectors in the economy. A simple comparison is presented in the following table.

Figure 20. Comparison to other sectors (R$ billions, direct effects only)

Sector	Value Added	Product	Tax Revenues
Textiles	15.0	40.4	1.1
Audiovisual	**15.7**	**34.0**	**1.6**
Articles of clothing	17.4	41.6	1.5
Auto parts	18.2	65.7	2.7
Pharmaceutical products	18.6	39.5	1.4

Source: National Accounts of Brazil – IBGE (2009). Developed by: Tendências.

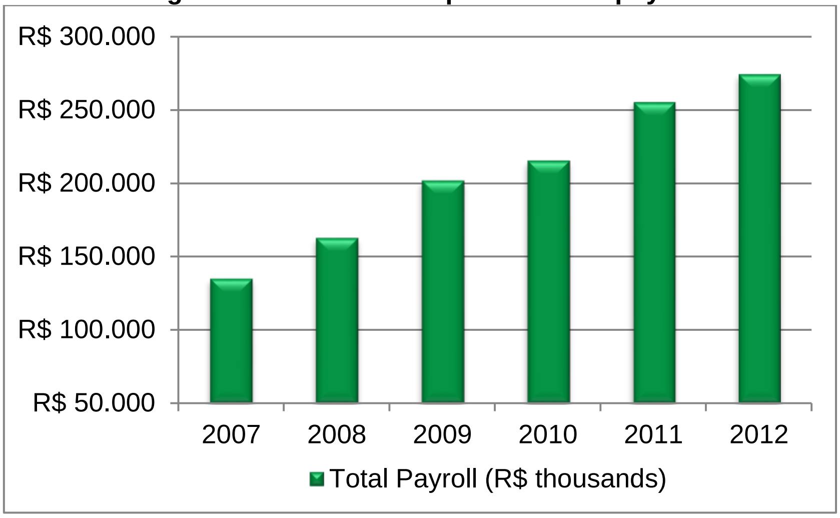
In terms of value added, the audiovisual sector is comparable to other important sectors in the economy, such as textiles, articles of clothing and accessories, auto parts and pharmaceutical products. The same observation applies to tax revenues.

3.2.1. Production Segment

This segment includes pre and post production activities, both stages of the value chain that come immediately before distribution. The charts below present total payroll, jobs and average wage in the segment[45]. Revenues and wages were adjusted by the Consumer Price Index (*IPCA-IBGE*).

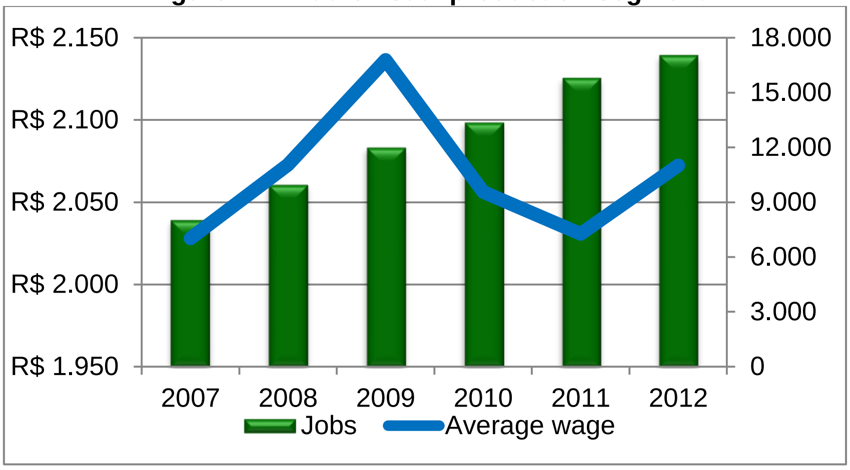
[44] Equivalent to R$ 2.1 billion adjusted for 2013 (using the IBGE's Broad Consumer Price Index).
[45] Casting figures have been excluded as the exact industry in which these professionals work cannot be determined. The total payroll was calculated using the sum of income for all jobs related to the segment, weighted by the duration of each job (from 1 to 12). The average wage figure, however, was calculated by

Figure 21. Audiovisual production's payroll



Source: MTE. Developed by: Tendências.

Figure 22. Audiovisual production segment



Source: MTE. Developed by: Tendências.

The number of jobs in production grew at an average annual rate of 16.1% in the 2007 to 2012 period, which is significantly higher than the corresponding figure for the audiovisual industry (4.9%) and for the rest of the Brazilian economy (6.1%). Similarly, the total payroll of the segment showed an average growth of 15.2% per year, in comparison to 6.5% and 8.2% for the audiovisual industry and Brazilian economy, respectively. Real wages remained relatively stable, indicating that the payroll growth was mainly driven by job creation.

Regarding employee schooling achievement, we see that 26% of the subsector's workers have a college degree, a higher percentage than the audiovisual industry (23%) or the rest of the economy (15%).

In terms of geographical distribution, content production is concentrated in the Southeastern Region (64.6% of the 2012 total), where the country's major TV studios have established their headquarters and main facilities (studios). Looking at the payroll,

simply taking the average of all wages over the course of the year, without factoring in the duration of each job.

this concentration becomes even more noticeable: 73.7% of the payroll for audiovisual production is accounted for by the Southeastern Region, implying that the jobs in this region pay higher average wages.

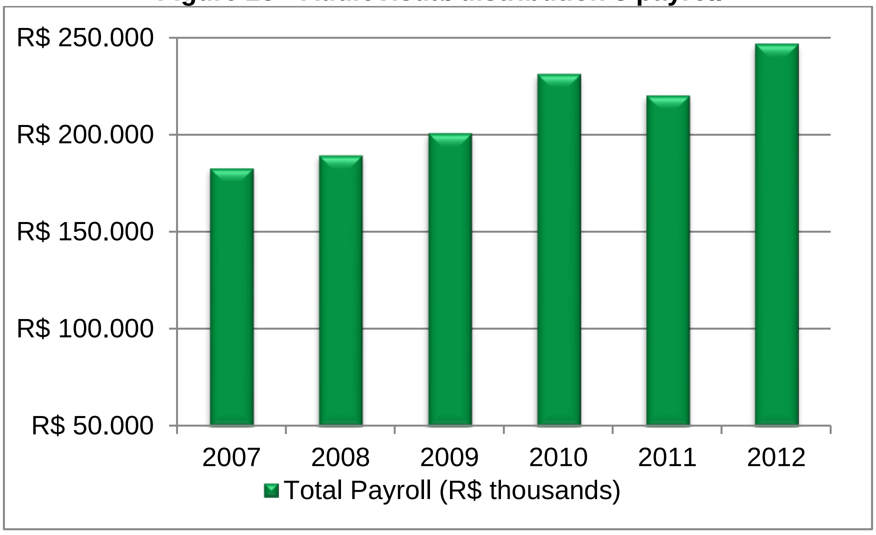
3.2.2. Distribution

Between 2007 and 2012, the distribution segment's payroll grew by an annual average of 6.2%, on par with the industry as a whole (6.5%) and below the rest of the economy (8.2%). The decrease in jobs, averaging 2.2% per year for the same period, implies that wages have increased significantly over time (averaging 9.4% per year). That is, the segment has employed less, but more qualified workers. The distribution segment has a high percentage of workers with college degrees (33%).

The reproduction sector, on the other hand, showed a significant drop in payroll (-6.1% per year) with a rise in jobs (5.2% per year) and a corresponding fall in real wages (-4.6% per year).

The distribution firms also concentrate their operations in the Southeastern Region (57.6% and 85.1% of jobs and revenues for 2012, respectively), where the main audiovisual content consumption markets (television broadcasters and cinema screens) are located. As for the manufacturers, they locate mainly in the Northern[46] (51.8% and 29.3% of jobs and revenues for 2012) and Southeastern regions (32.6% and 59.5%, respectively).

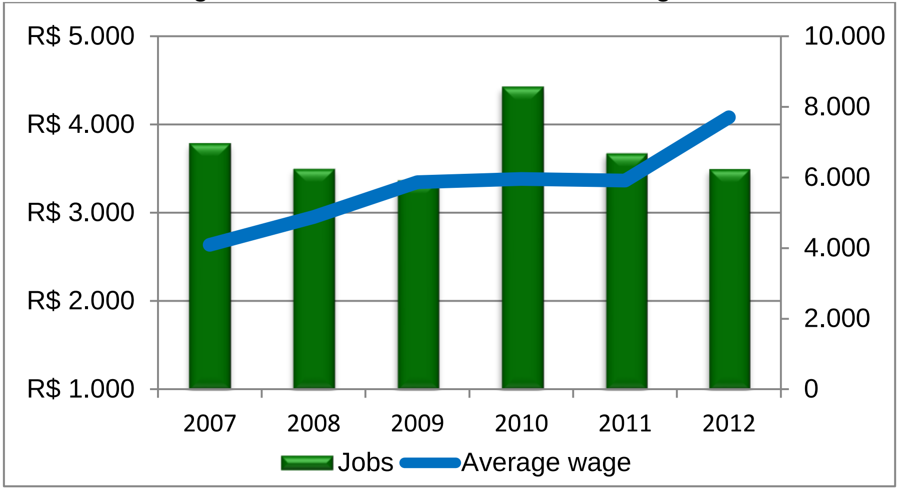
Figure 23. Audiovisual distribution's payroll



Source: MTE. Developed by: Tendências.

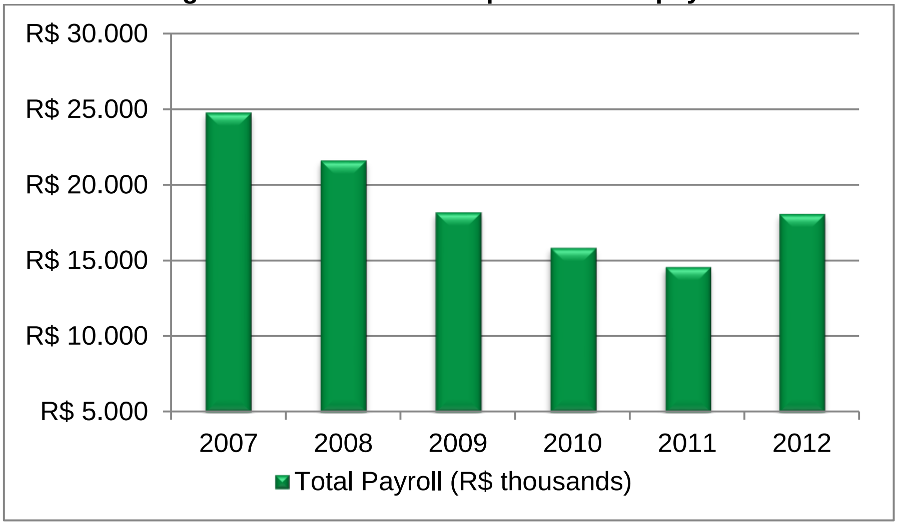
[46] The Northern Region's performance is due to the Free Economic Zone of Manaus.

Figure 24. Audiovisual distribution segment



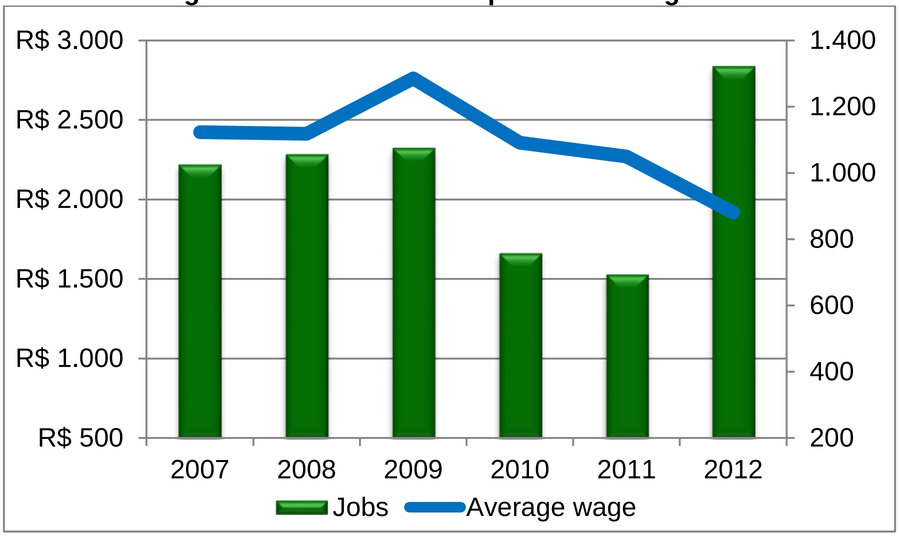
Source: MTE. Developed by: Tendências.

Figure 25. Audiovisual reproduction's payroll



Source: MTE. Developed by: Tendências.

Figure 26. Audiovisual reproduction segment



Source: MTE. Developed by: Tendências.

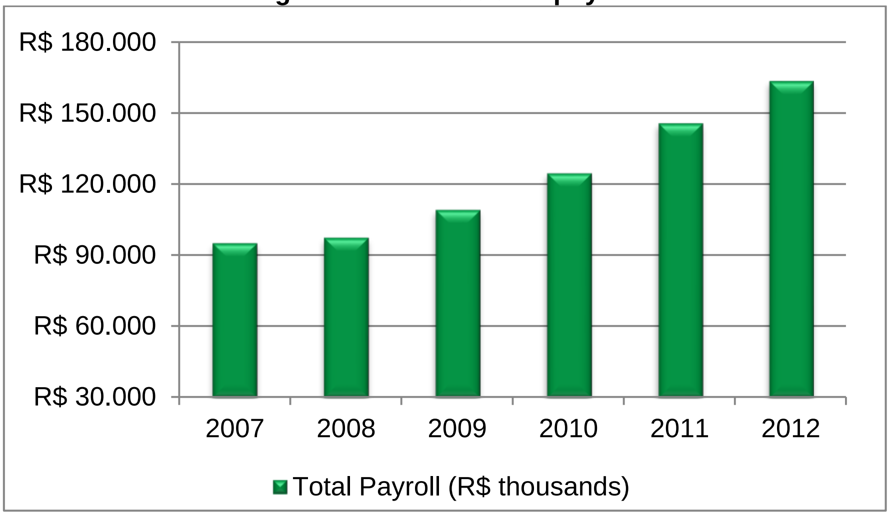
3.2.3. Consumption

Exhibition

The exhibition sector comprises the projection of films in cinema theatres. According to ANCINE figures for 2012, the top 5 exhibition companies in Brazil accounted for 1,063 cinema screens, representing 42.2% of the country's total[47]. The segment also demonstrated expressive growth in jobs and wages, with these indicators having yearly average growth rates of 11.6% and 11.4%, respectively, since 2007. Furthermore, real wages in the sector also increased (3.6% per year, on average). Despite this expressive growth, only 3% of its employees have college degrees.

In regional terms, the movie theaters are concentrated in the Southeastern Region, with 61.5% and 67.2% of jobs and revenues, respectively.

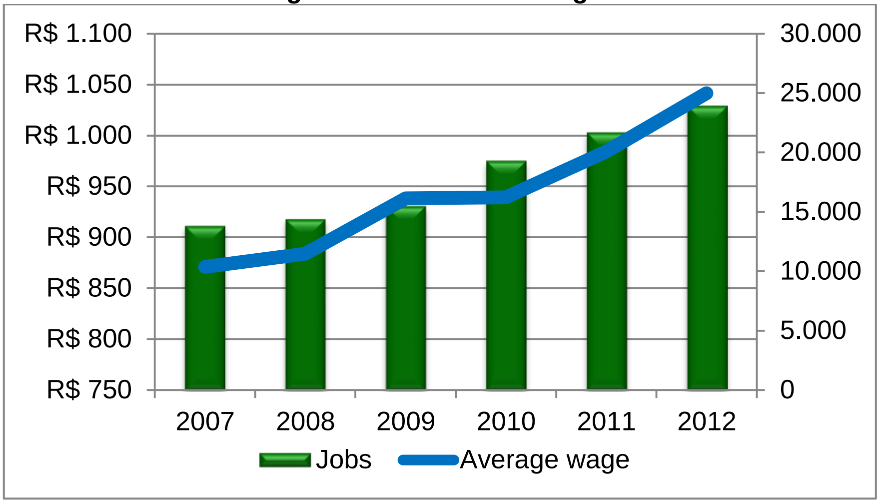
Figure 27. Exhibition's payroll



Source: MTE. Developed by: Tendências.

[47] Information available at: <http://oca.ANCINE.gov.br/exibicao.htm>. Accessed on 01/14/2014. This sector is characterized by significant fragmentation (the existence of many small businesses), when comparing Brazil to other countries.

Figure 28. Exhibition segment

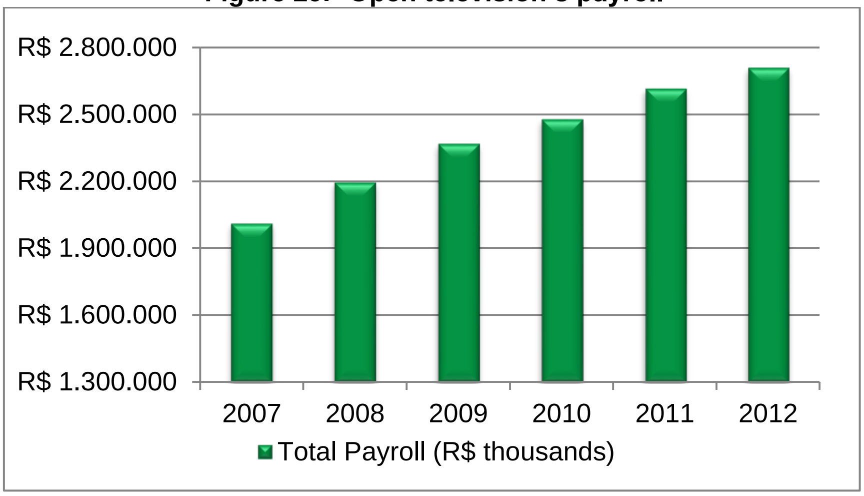


Source: MTE. Developed by: Tendências.

Television

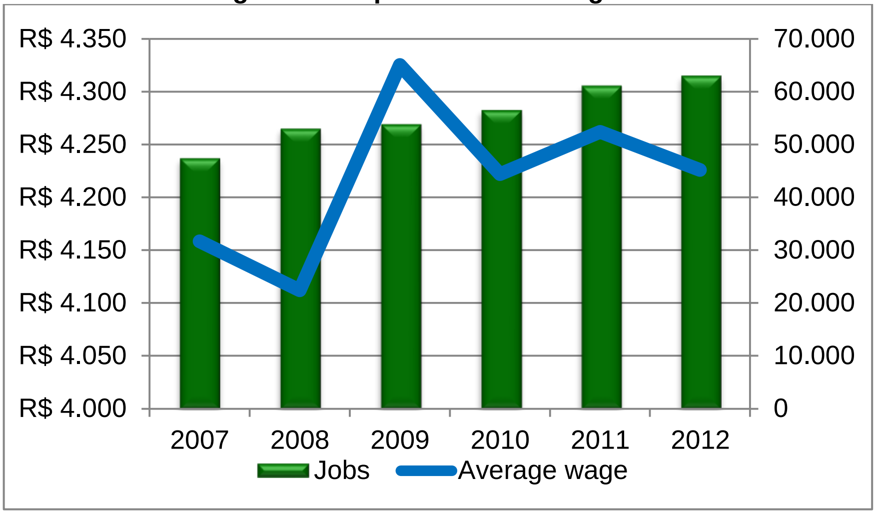
This segment comprises TV studio operations and the broadcasting of live or recorded programs to the general public, including activities by affiliate television stations. Between 2007 and 2012, the subsector's total payroll and jobs had annual average growth rates of 6.1% and 5.8%, respectively, which is in line with the results of the audiovisual industry as a whole. Regarding its employees, 38% had college degrees, which is significantly higher than the corresponding figure for the audiovisual industry (23%).

Figure 29. Open television's payroll



Source: MTE. Developed by: Tendências.

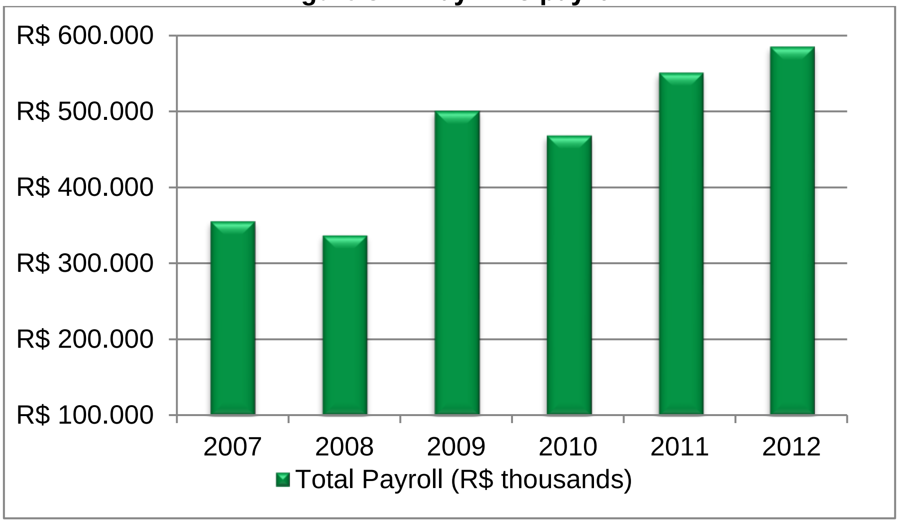
Figure 30. Open television segment



Source: MTE. Developed by: Tendências.

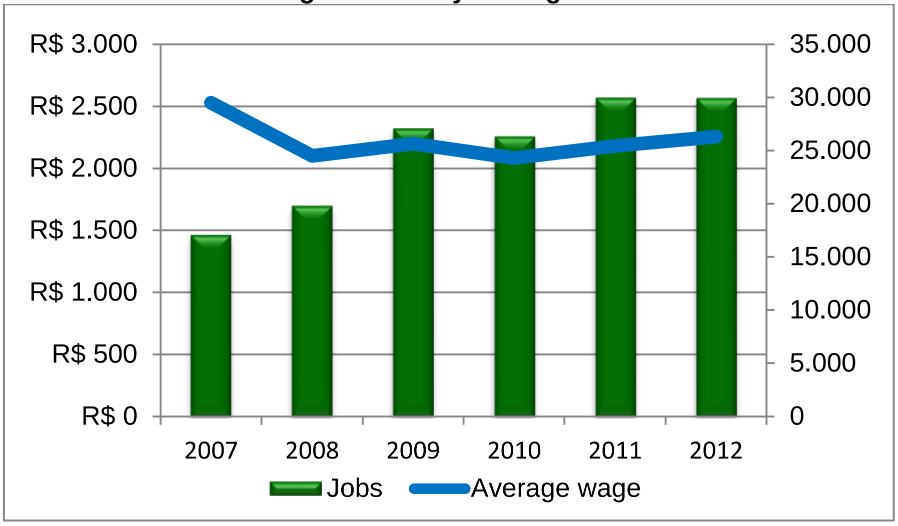
According to ANATEL, the total number of Pay TV subscribers grew by 23.6%, between 2007 and 2012, and the consumer base is still expanding in Brazil. During the same period, the sector's total payroll and jobs increased by 20.4% and 11.9% per year, respectively. 19% of the sector's employees had college degrees.

Figure 31. Pay TV's payroll



Source: MTE. Developed by: Tendências.

Figure 32. Pay TV segment



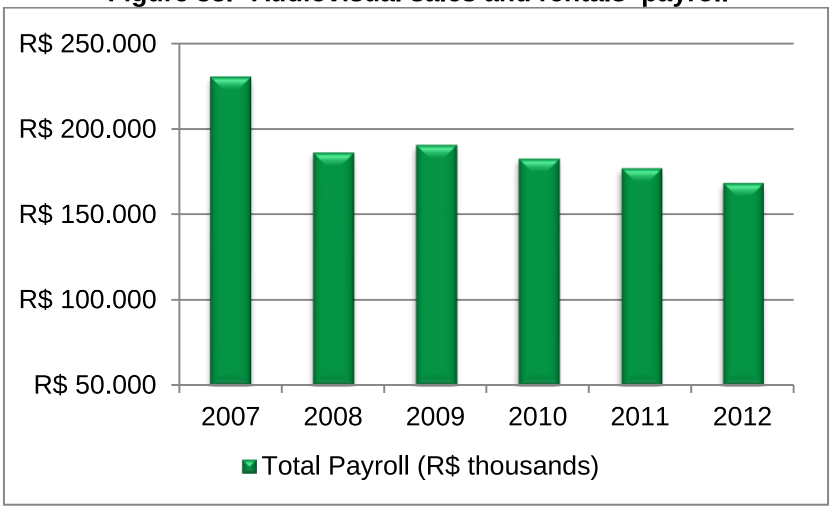
Source: MTE. Developed by: Tendências.

Firms in this segment concentrate their operations in the Southeastern Region (60.9% and 73.7% for jobs in 2012, for open and Pay television, respectively). As regards to payroll, the contrast is even more striking, with 76.0% and 78.1% of open and pay television incomes, respectively, being concentrated in the Southeastern Region.

Sales and Rentals

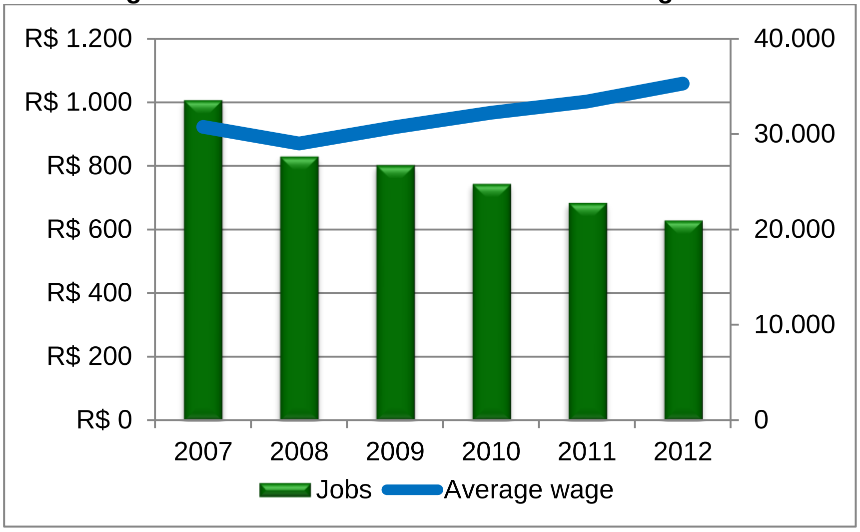
Between 2007 and 2012, the payroll and jobs of this segment experienced average declines of 6.1% and 9.0% per year, respectively. This segment in particular is facing stiffer challenges than the rest of the industry, caused by the proliferation of pirated products and the development of alternative broadcasting mediums (such as VoD). The segment is also concentrated in the Southeastern Region, which accounted for 59.5% and 67.7% of the jobs and payroll in 2012, respectively. Furthermore, it employs a small group of workers with college educations, amounting to a mere 5%.

Figure 33. Audiovisual sales and rentals' payroll



Source: MTE. Developed by: Tendências.

Figure 34. Audiovisual sales and rentals segment

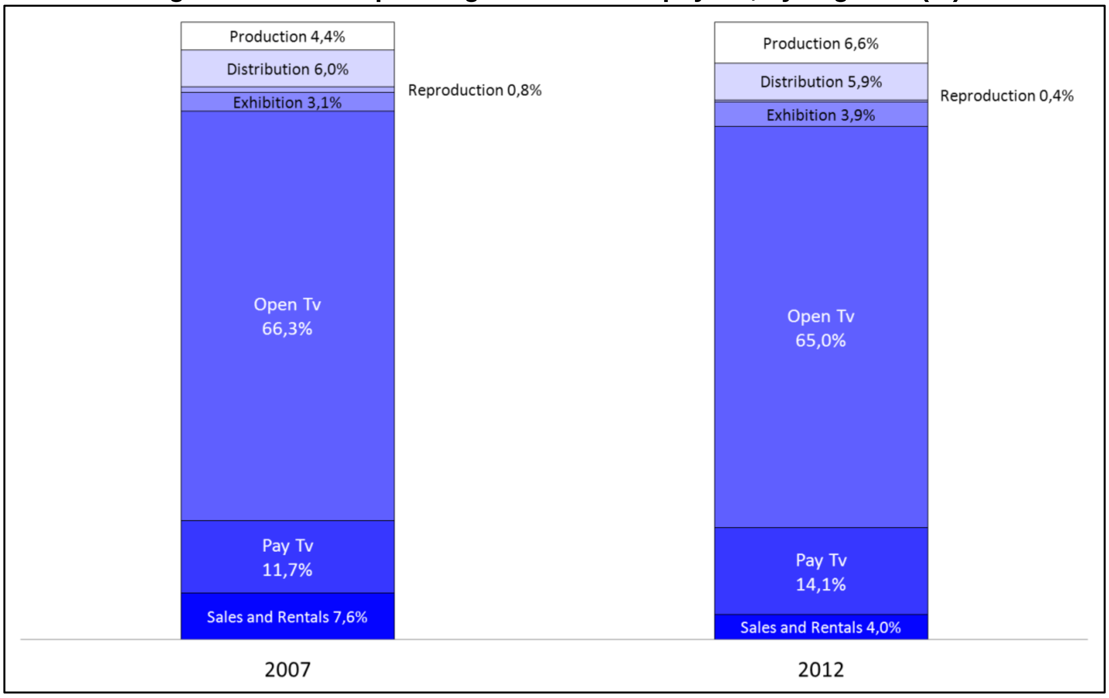


Source: MTE. Developed by: Tendências.

3.2.4. Relative size of the segments

Having analyzed each segment in the AV industry, we can now compare the economic importance of each one of them, in terms of their formal, direct jobs, payrolls and average wages. For total payrolls, open television was responsible for 66% of the industry's wages in 2007 and 65% in 2012. The second-largest spot is held by Pay TV, with 14% in 2012, up from the 11.7% in 2007. Sales & rentals contracted during the period, while Production still accounts for less than 10% of the total payroll (despite growing between 2007 and 2012). The chart below shows the evolution of each segment.

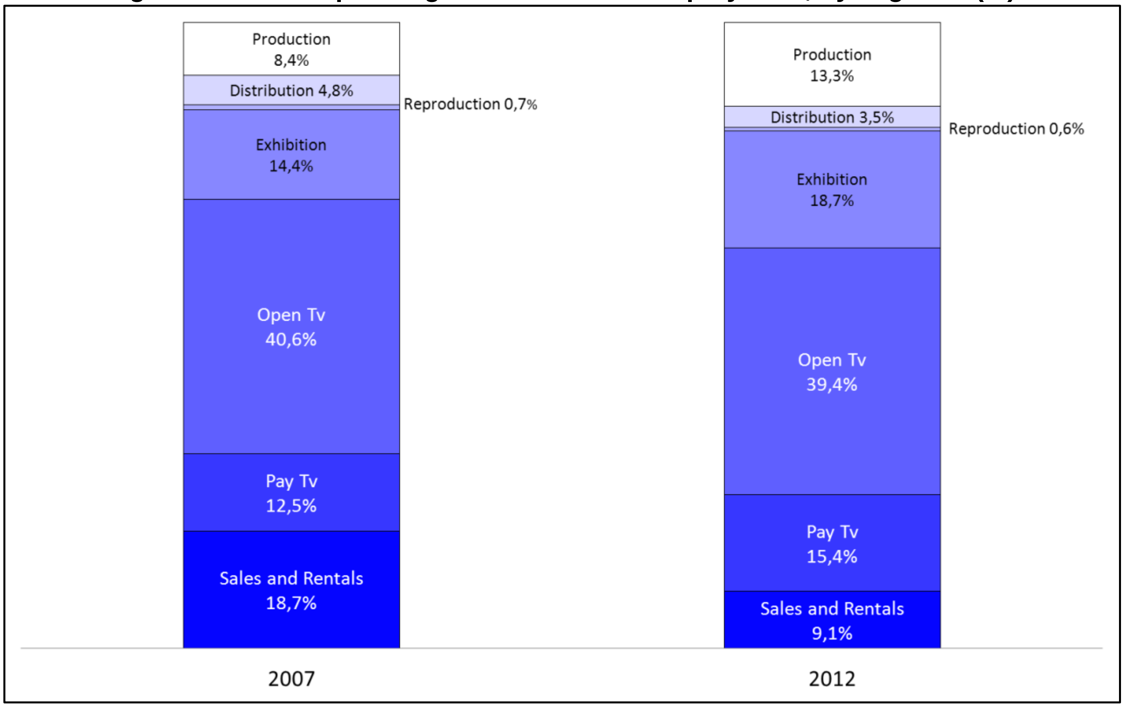
Figure 35. Corresponding share of total payroll, by segment (%)



Source: MTE. Developed by: Tendências.

The outlook is similar when one investigates how each segment contributes to the total number of audiovisual jobs. According to the chart below, the production segment grew substantially, in stark contrast to the decline in the Sales & Rentals segment that by 2012 had lost half of the share accounted for in 2007.

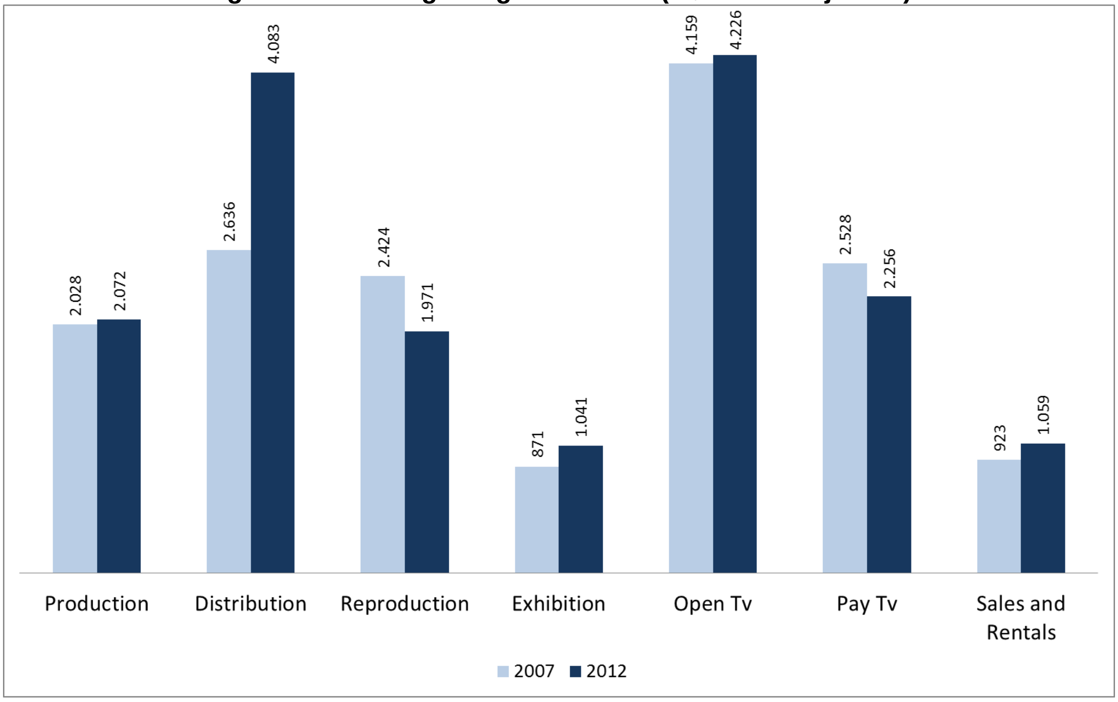
Figure 36. Corresponding share of formal employment, by segment (%)



Source: MTE. Developed by: Tendências.

Finally, we have the evolution of average real wages in each segment, which can be seen in the following chart. In terms of growth, the distribution segment stands out, with its average wage growing by more than 50% over the period. When analyzing the absolute income levels, the Sales & Rentals segment offers the lowest wages, with the highest wages being in the open television and distribution segments.

Figure 37. Average wage evolution (R$ - 2012 adjusted)



Source: MTE. Developed by: Tendências.

The TV segments are the most important in terms of creating jobs and generating labor income (total payroll).

3.3. Household expenditures on entertainment

According to the Household Budget Survey conducted by (IBGE), the average Brazilian household uses approximately 5.0% of its budget on entertainment – the group of expenditures that includes the audiovisual industry's goods and services. This amount is lower than for other categories, such as housing, food, transport, health care and apparel. For households with higher income, expenditures on cultural activities increase, reaching 6.3% for families with monthly incomes greater than R$ 6,225, compared to 3.6% for households with income of less than R$ 830. In other words, expenditures on entertainment increase with income, indicating that these are superior goods[48]. This translates into an optimistic outlook for the growth of this industry in Brazil, where a process of growing incomes and upward social mobility has been in place since the last decade. Should this trend continue into the future, the demand for audiovisual content should experience a significant boost.

[48] Superior goods are those for which demand increases more than proportionately to increases in income.

Figure 38. Household expenditure, by expenditure group

Expenditure categories	Total	Household monthly income					
		Less than R$ 830	R$ 830 to R$ 1,245	R$ 1,245 to R$ 2,075	R$ 2,075 to R$ 4,150	R$ 4,150 to R$ 6,225	R$ 6,225 and more
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Housing	34.0%	37.8%	38.0%	36.4%	34.2%	32.9%	31.0%
Food	19.8%	29.6%	27.0%	24.1%	20.5%	17.3%	13.7%
Transport	19.6%	10.3%	12.0%	14.8%	19.0%	22.1%	25.9%
Entertainment*	**5.0%**	**3.6%**	**3.6%**	**4.0%**	**4.7%**	**5.4%**	**6.3%**
Health care	7.2%	5.8%	6.5%	6.9%	7.0%	7.2%	8.1%
Apparel	5.3%	5.6%	5.5%	5.8%	5.7%	5.1%	4.6%
Education	2.5%	0.7%	0.9%	1.2%	2.3%	3.3%	4.0%
Other expenditures	2.6%	1.8%	1.8%	2.1%	2.4%	2.8%	3.2%
Personal care products	2.4%	2.9%	2.9%	2.9%	2.6%	2.2%	1.7%
Personal services	1.1%	0.8%	0.9%	1.1%	1.2%	1.3%	1.2%
Tobacco products and smoking supplies	0.5%	1.0%	0.9%	0.8%	0.6%	0.4%	0.3%

Source: Household Budget Survey/IBGE. Developed by: Tendências.

Expenditure on entertainment reveals that direct spending on the audiovisual sector[49] represents 6.6% of the total budget, with this figure varying between 2.9% and 9.5%, depending on the household income. Furthermore, a significant part of the expenditure households designated to entertainment comprises purchases of home appliances, such as televisions (6.3%) and computers (5.7%). However, we can see that the fraction spent on pay TV and cinema increases with income, reinforcing the previous argument for the good prospects of this industry's growth in Brazil.

[49] Sales and rentals of cassette tapes and DVDs, Pay TV and cinema tickets.

Figure 39. Household expenditure on the "Entertainment" group

Expenditure categories	Total	Household monthly income					
		Less than R$ 830	R$ 830 to R$ 1,245	R$ 1,245 to R$ 2,075	R$ 2,075 to R$ 4,150	R$ 4,150 to R$ 6,225	R$ 6,225 and more
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**
Reproduction of recorded material	**1.9%**	**1.8%**	**2.2%**	**1.9%**	**2.0%**	**1.8%**	**1.8%**
Sales of Video Cassettes, CDs and DVDs	0.8%	1.1%	1.1%	0.9%	0.8%	0.7%	0.7%
Rentals of Video Cassettes and DVDs	1.1%	0.8%	1.1%	1.0%	1.1%	1.1%	1.1%
Home appliances	**15.7%**	**29.5%**	**22.7%**	**18.9%**	**15.4%**	**13.2%**	**12.2%**
Video	7.8%	20.7%	14.8%	10.6%	6.9%	5.1%	5.4%
Televisions	6.3%	15.6%	11.2%	8.1%	5.5%	4.3%	4.6%
Video Cassette and DVD Player	1.4%	4.9%	3.5%	2.3%	1.3%	0.7%	0.5%
Computers	6.3%	3.4%	4.4%	6.1%	7.2%	7.3%	6.2%
Computers for Home Use	5.7%	3.1%	3.9%	5.5%	6.6%	6.6%	5.5%
Internet access and cable TV services	**6.7%**	**2.9%**	**3.1%**	**3.7%**	**5.6%**	**7.3%**	**9.7%**
Internet service provision	3.2%	2.1%	2.5%	2.6%	3.3%	3.3%	3.6%
Cable and satellite television services	3.5%	0.8%	0.6%	1.1%	2.3%	4.0%	6.1%
Cultural and leisure activities	**14.1%**	**9.0%**	**8.6%**	**10.5%**	**12.4%**	**14.4%**	**18.5%**
Leisure and Culture	6.5%	3.3%	3.9%	4.3%	5.4%	7.1%	8.8%
Movie theaters	1.3%	0.3%	0.6%	0.7%	1.2%	1.6%	1.7%
Theaters, museums and concerts	0.6%	0.2%	0.6%	0.4%	0.5%	0.4%	0.9%
Nightclubs	2.2%	1.3%	1.3%	1.9%	2.0%	2.7%	2.4%

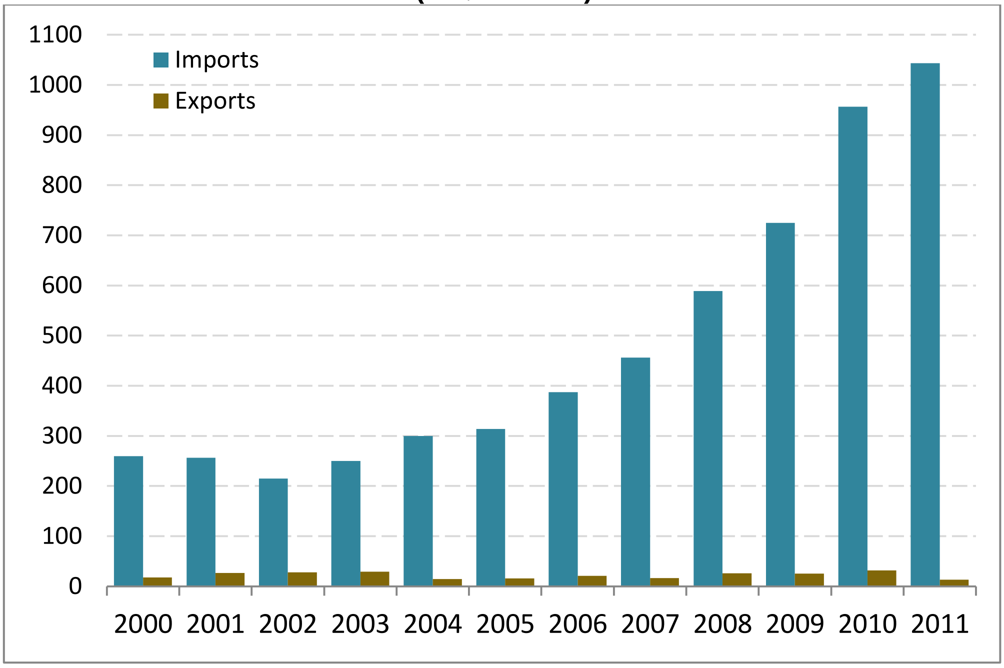
Source: Household Budget Survey/IBGE. Developed by: Tendências.

3.4. Audiovisual content exports

Regarding audiovisual content exports, UNCTAD (United Nations Conference on Trade and Development) separates goods and services in its definitions. Goods are classified as content provided in a physical product; that is, films and media recorded on DVDs and Blu-rays. Therefore, exports of goods are the sales of these DVDs and Blu-rays containing content to the external market. Services are further divided into two categories. The first encompasses any form of payment by residents for services undertaken abroad (for example: rentals, fees, etc.), while the second refers to distribution rights (royalties that authorize the reproduction of audiovisual content). In general, the international trade of AV services is much higher than the trade of AV goods.

In Brazil, the trade balance of audiovisual services is negative, meaning that the country imports more than it exports. According to UNCTAD figures, audiovisual service exports fell 23% between 2000 and 2011, while imports increased 301.5%, as can be seen in the following chart.

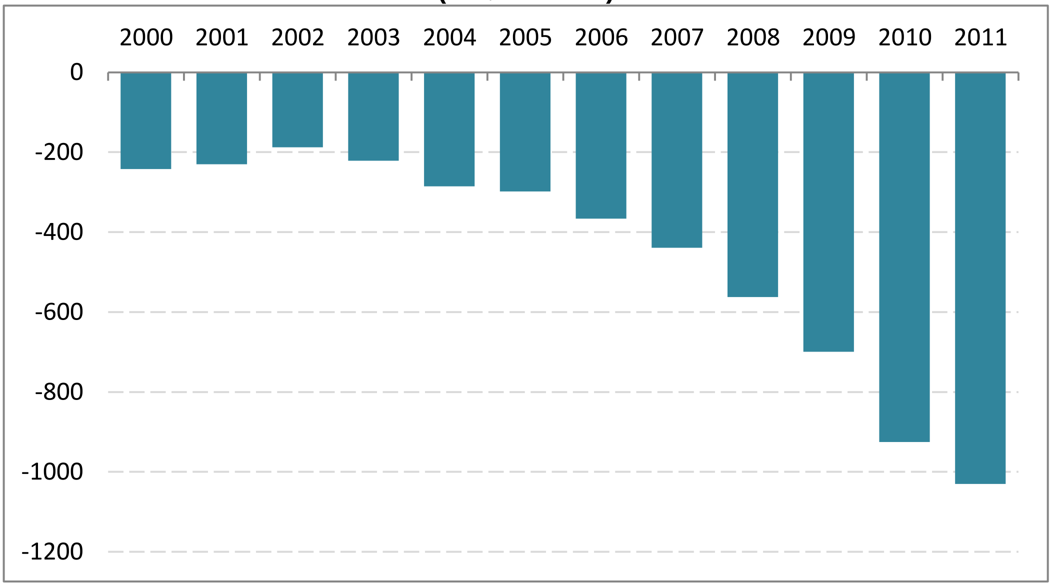
Figure 40. Trade balance of audiovisual services - Brazil (US$ millions)



Source: UNCTAD. Developed by: Tendências.

Two points need to be understood regarding these results. Firstly, overall Brazilian imports increased by 305% during this period, but the relationship between audiovisual content imports and total imports remained relatively stable, at around 0.05%. Audiovisual exports, however, fell in relation to total exports: in 2000, the audiovisual industry's exports represented 0.032% of Brazil's exports, a figure that reached 0.005% in 2011. Thus, as is shown in the following chart, there is a downward trend in the trade balance for audiovisual services, *i.e.* an increasing deficit, resulting from a surge in imports that has not been compensated by an equivalent growth of exports.

Figure 41. Trade balance of audiovisual services - Brazil (US$ millions)

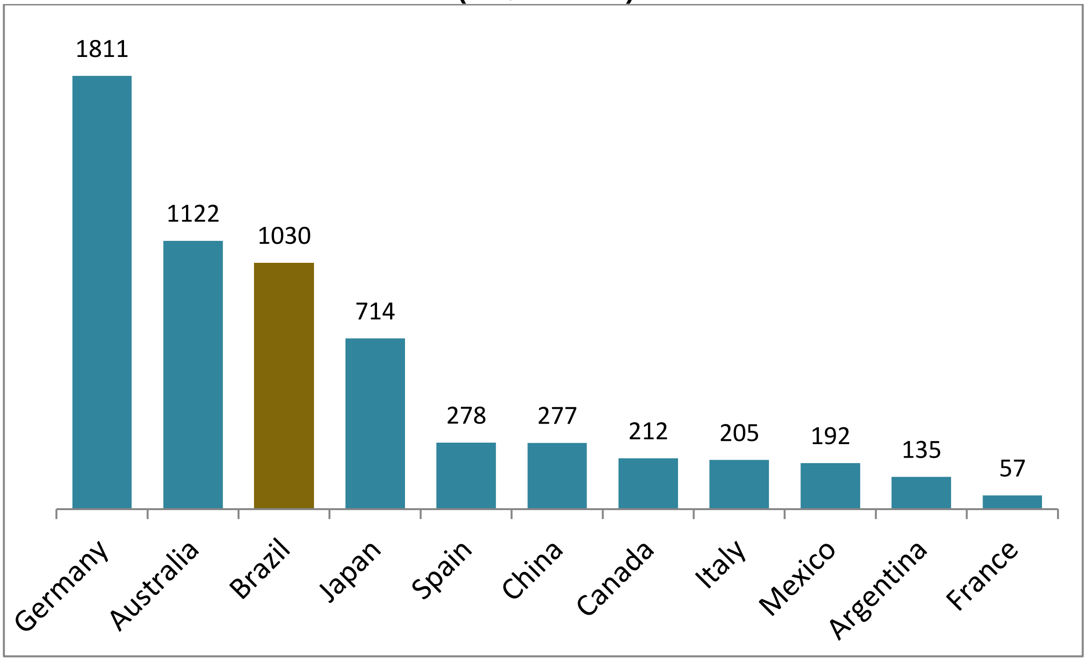


Source: UNCTAD. Developed by: Tendências.

Another point to note comes from a comparison with other countries. We can see that the industry's performance in Brazil actually is similar to that seen in several developed nations. With the exception of the US and UK, most developed economies run a trade deficit in AV services.

In 2011, Germany exported approximately US$ 900 million of AV services, but imported US$ 2.71 billion, resulting in a deficit of US$ 1.81 billion – the largest among the countries studied. Australia comes next, with a deficit of US$ 1.12 billion, resulting from AV exports of US$ 209 million and imports of US$ 1.33 billion. Brazil is in third place, where 2011 figures for audiovisual service imports amount to US$ 1.04 billion and exports to US$ 13 million, leaving a negative balance of US$ 1.03 billion. Japan (US$ 713.7 million), Spain (US$ 278.1 million) and China (US$ 276.8 million) follow, as can be seen in the following chart.

**Figure 42. Audiovisual services deficits – 2011
(US$ millions)**



Source: UNCTAD - United Nations Conference on Trade and Development. Developed by: Tendências.

3.5. Tax rates

The audiovisual sector in Brazil is subject to the wide range of taxes at all stages of the value chain, generating a high tax burden for the end product as a whole. This issue is not specific to the AV industry but a general feature of the Brazilian economy[50].

A brief list of the main taxes charged on at least one segment of audiovisual sector is presented below:

- Service Tax (ISS) is a municipal tax charged on a wide range of services, including film screenings;
- Property Tax (IPTU) is also a municipal property tax charged on commercial value of urban real estate;
- Tax on Circulation of Goods and Services (ICMS) is charged in transactions involving interstate and intermunicipal transportation of goods, besides services and communication;
- Income Tax (IRPJ & IRPF) are federal taxes on net income of firms and individuals;
- Tax on Industrialized Products (IPI) is tax on products and production inputs sourced by the manufacturing sector;
- Tax on financial operations (IOF) charged on credit, exchange and insurance operations, or bonds and securities transactions;

[50] For more on taxation in Brazil, including its impact on the countries competitiveness, see <http://www.oecd.org/ctp/tax-global/Brazil%20country%20note_EN_final.pdf> and <http://www.receita.fazenda.gov.br/principal/ingles/sistematributariobr/taxes.htm>.

- Other taxes related to social security (PIS/PASEP/Cofins) is paid by firms (based on gross revenue) to finance unemployment insurance and other social security benefits; and
- Tax on commercial exploration of audiovisual work (Condecine) charged on film screening, film rental, open TV and pay television. Aims to finance de development of the Brazilian film industry

A survey conducted annually by the *Instituto Brasileiro de Pesquisa Tributária* (IBPT)[51], regarding seven taxes (ICMS, ISS, IPI, IOF, PIS / PASEP, COFINS and Cide) presents estimates for the total tax burden on various economic sectors, including audiovisual (Figure 36).

Figure 43. Tax burden estimate for audiovisual sector

Audiovisual	(%)
News agency services in the audiovisual media	18.29
Broadcasting services	13.45
Programming services for TV channels	13.45
Production of television programs, videotapes and movies	17.88
Post-production services for audiovisual industry	18.45
Marketing and sales of audiovisual industry	18.45
Film screening services	18.26
Licensing and temporary leasing of film rights	18.29
Distribution services for TV-packages under subscription	13.45
Industry average	16.82

Source: IBPT. Developed by: Tendências.

According to estimates by IBPT, the average tax burden of the activities in the AV industry is very close to the other sectors related to entertainment and leisure, with an average tax burden of 16.8%. Moreover, we should note that the activities most affected by the incidence of the taxes are those related to the sales segment, with an average tax burden of 18.45%.

These estimates, however, does not take into account the multistage organization that characterizes the production and marketing in the sector as a whole. Therefore, the occurrence of double taxation is neglected. In this sense, it is worth presenting the results found by the Laboratory for Audiovisual Economics from UFRJ (Federal University of Rio de Janeiro) in a study[52] conducted in 2008 with the objective of estimating the *effective* tax burden of the Brazilian film industry.

[51] Available in: http://www.cacb.org.br/manual_de_olho_no_imposto. Accessed on: 04/03/2014.

[52] G. Souza, Rodrigo (2008). *Distribuição de recursos nas janelas de comercialização – O impacto da carga tributária*. Available at: <http://ww2.ie.ufrj.br/images/pesquisa/publicacoes/discussao/2008/TD08_09_25_Fabio_Sa_Earp.pdf>. Accessed on: 03/04/2014.

Figure 44. Effective tax burden in the AV sector

Sales channel	Estimate tax burden
Cine room	25%
Home Video - rental	30%
Home Video – sales	28%
Open TV	23%
Pay television	23%
Average	27%

Source: LAV/UFRJ. Designed by: Tendências.

The author highlights the fact that taxes under federal jurisdiction are the most prevalent, representing about 50% of the total revenues collected. Also, agents located at the end of the value chain, such as exhibitors, are less affected by taxation, whereas distributors and investors suffer from bi/tri-taxation. The study also simulates the effect of tax cuts to find the potential positive impacts of this measure for all agents involved in the production chain. According to the author, a process of tax relief in the film industry could lead to a higher reinvestment in the sector itself, and, ultimately, a full tax exemption would generate an additional gain of up to 70% to producers and 73 % to investors.

As stated by the author in his conclusion, "*the intention in this paper is not to assert that a tax cut would allow all films to be financed without tax incentive laws, or that new funding models without those incentives would be conceived immediately after a process of tax relief. (...) However, it is possible to infer how the economic and financial feasibility remains far from being achieved without a process of tax relief.*"

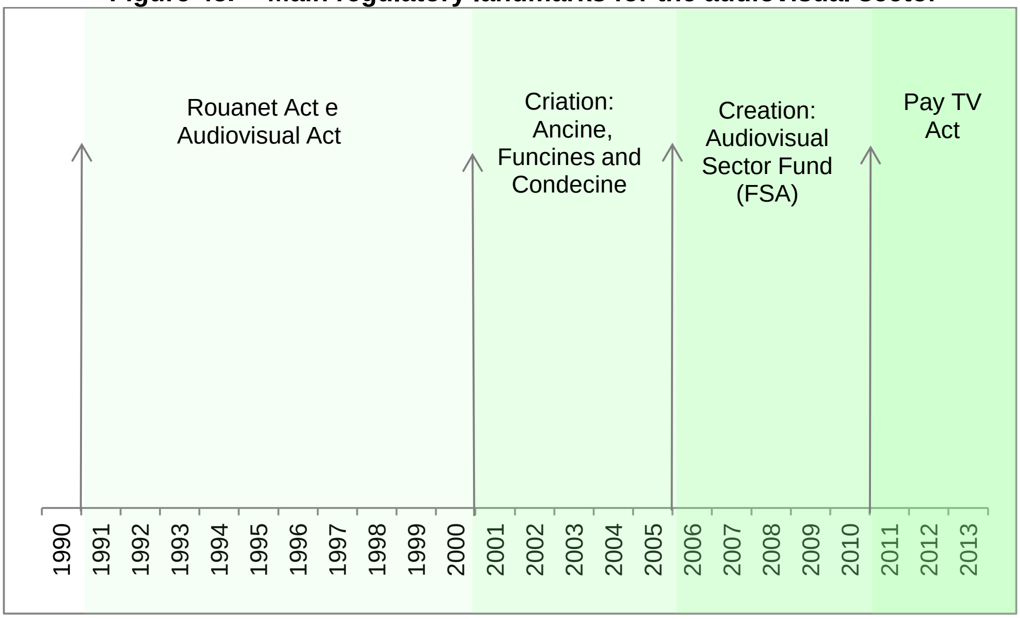
4. Legislation

This chapter will look at the legal and regulatory aspects of the audiovisual industry. We will critically evaluate the main mechanisms used to encourage the sector, as well as its evolution over time. Then, we will tackle one of the main aspects obstructing the industry from further development in Brazil: piracy. Finally, we will present some international experiences, emphasizing cases of countries that were successful in developing local markets and in international insertion, based on the creation of an appropriate regulatory framework.

4.1. Brazil's legal framework for the audiovisual market

The public policies for the audiovisual industry in Brazil became more active since the mid-1990s, after the industry had seen a decline that peaked with the extinction of Embrafilme[53], in 1990. Based on the mechanisms to foster and regulate the audiovisual sector, four main regulatory landmarks can be identified, as outlined in the timeline below and subsequently investigated.

Figure 45. Main regulatory landmarks for the audiovisual sector



Source: ANCINE. Developed by: Tendências.

4.1.1. First regulatory landmark

The first years of the sector's return were marked by the institution of fiscal incentive mechanisms laid out in the Rouanet Act[54] and the Audiovisual Act[55]. The Culture Incentive Act, commonly called the Rouanet Act, allows for private individuals and

[53] A Brazilian state company founded on September 12, 1969, whose main function was to foster the production and distribution of national films. The state company was terminated on March 16, 1990, within the context of the National Privatization Program.

[54] Act 8,313, of December 23, 1991.

[55] Act 8,685, of June 20, 1993.

companies to apply a part of the Income Tax owed to cultural projects with no prospect of financial returns.

The Audiovisual Act, on the other hand, seeks to stimulate investment in audiovisual projects. By using income tax deductible resources for audiovisual projects, through the purchase of investment certificates, the investor acquires the right to dividends over the commercialization of the projects.

Articles 3 and 3-A of the Audiovisual Act also provide for incentives to invest in the sector. According to these provisions, foreign producers and distributors are granted an exemption of up to 70% of the taxes due on remittances if this amount is invested in Brazilian co-productions.

In both cases, the project in question must be certified by the Culture Ministry to receive funds using these fostering instruments. The consolidation of this legislation promoted a substantial increase in the resources available to the industry, and is seen as a fundamental driver of the sector's revival in the mid-1990s[56].

4.1.2. Second regulatory landmark

Executive Order 2,228/01[57] created the National Cinema Agency (ANCINE), also instituting the Contribution to the Development of a National Film Industry (CONDECINE), and can thus be considered the second regulatory landmark for the audiovisual sector at the time. ANCINE's main objective is to foster, regulate and monitor Brazil's audiovisual industry. In addition, it is responsible for allocating the Financing Funds of the National Film Industry (FUNCINES), an investment funds with tax benefits that was also created by Executive Order 2,228/01 with the aim of supporting the industry's companies.

CONDECINE is a kind of tax classified as a Contribution on Economic Activities (CIDE) and, as such, should be used as an economic planning instrument that the State can use to regulate and intervene on the economy's sectors, correcting possible market errors. In summary, legally, the CIDE is a tax classification, while for the economy, it is a planning instrument.

The contribution focuses on two groups of separate originating facts, such that we can divide the CONDECINE into: Fixed CONDECINE and Percentage CONDECINE. The first category's originating facts are the delivery, production, licensing and distribution

[56] Another relevant landmark was the inception of Executive Order no 2.228-1 in 2001, which created a 11% tax (CONDECINE) on remittances derived from revenues obtained by foreign productions in Brazil. This Executive Order says that foreign producers/distributors would be exempt from this tax if they resorted to the provisions in Article 3 of the Audiovisual Act. This mechanism provided a strong incentive for co-productions to avoid being required to pay this 11% levy.

[57] Executive Order 2,228-1, of September 6, 2001. Executive Orders are issued by the President of the Republic in cases of need or urgency, and are legally in force immediately.

of films for commercial purposes, as per the market segment they are destined for[58]. The second category relates to "*the payment, credit, employment, remittance or delivery, to producers, distributors or intermediaries located abroad, of sums for revenues resulting from the commercialization of films (...)*"[59].

Until around 2005, ANCINE's fostering and regulatory actions in the audiovisual industry concentrated mainly on the administration of the tax incentive mechanisms that were defined by the laws made in the 1990s[60] and by the mechanisms created by Executive Order 2,228/01. The agency's focus was on independent Brazilian productions in which the production company had no association or connection to open or closed television groups.

Also of note is the participation of other state (or parastatal) agents in fostering the industry. Using the above-mentioned tax incentive laws for culture, the BNDES started, in 1995, channeling resources for Brazil's film production, becoming the second-largest sponsor of national cinema, behind only Petrobras in terms of resource volume. According to the BNDES industry report[61], for the period between 1995 and 2005, the bank's industry impact came from a sponsor's perspective, leading to the application of a total of R$ 80 million in the production and finalization of 265 independent projects.

4.1.3. Third regulatory landmark

The third regulatory landmark for the industry was the creation of the Audiovisual Sector Fund (FSA)[62], a specific category of the National Culture Fund (FNC)[63] destined for providing investments in different sector activities, from the production and commercialization of films for cinema and television, to the construction of cinema screens. The FSA innovation is a result of it being constituted by resources generated by actual sector activity, based on contributions previously collected by market agents, especially from CONDECINE[64].

With the institution of the FSA, all of CONDECINE's resources were channeled into this fund, meant to act in three large programs: the National Cinema Development Program (PRODECINE)[65], National Audiovisual Development Program (PRODAV)[66] and Cinema and Audiovisual Infrastructure Development Program (PRO-INFRA)[67]. A

[58] Executive Order 2,228/2001, paragraph 32.
[59] Executive Order 2,228/2001, sole paragraph.
[60] Rouanet Act (8,313/91) and Audiovisual Act (8,685/93). 8.685/93).
[61] Mello, G.; Goldenstein, M.; Ferraz, R. O Audiovisual brasileiro em um novo cenário. BNDES Setorial nº 38, p.291-328. Rio de Janeiro (October/2013).
[62] Created by Act 11,437, of December 28, 2006.
[63] New denomination for the Cultural Promotion Fund, created by Act 7,505, of July 2, 1986, aimed at raising resources destined for cultural projects.
[64] Instituted by Executive Order 2,228/01, this is a contribution to economic activities with the purpose of developing the national film industry.
[65] Aimed at the production and distribution development of national feature films.
[66] Aimed at the development of national production independent of open and closed television.
[67] Aimed at fostering technical infrastructure projects for cinematographic and audiovisual activities.

Steering Committee, comprising two Culture Ministry representatives, one from ANCINE, one for the accredited financial agents and two from the audiovisual sector, defines the guidelines for the application of resources. The committee defines the allocation of resources, priority areas and annual investment plan, with the BNDES acting as the FSA's financial agent since 2010.

In addition, it should be noted that, as of 2006, the BNDES has been increasingly participating in the industry, not only by providing sponsorship, but also credit and participation. The aim of this new set of actions is to support and help speed up the various production chains by adopting an economic development direction. In this sense, the creation of the BNDES Procult program aimed at developing cultural projects by offering a line of financing with privileged, more appropriate conditions to companies in the audiovisual industry, is also worth pointing out.

4.1.4. Fourth regulatory landmark

Finally, the fourth regulatory landmark from the past decade of audiovisual policy was the approval of the Pay TV Act[68], which came to regulate the industry with the aim of creating demand for national productions. This law introduced a minimum quota for national content, established as 3 hours and 30 minutes of prime time national content per week for all channels classified as qualified space[69], and half of this quota must be produced by independent Brazilian production companies.

Furthermore, the Pay TV Act established that, for all packages offered to consumers by Pay TV service providers, one out of three qualified space channels must be a qualified space channel from a Brazilian scheduler.

4.2. Anti-piracy policies

Audiovisual piracy is defined as the appropriation, reproduction and use of works protected copyright without due authorization. According to the 2011 study by Ipsos and Oxford Economics[70], film piracy takes place through three main mediums: (i) physical, (ii) digital and (iii) secondary. The physical mediums encompass the sale and contraband of pirate or copied DVDs at commercial establishments and street peddlers. The digital medium takes place through the transfer and reproduction of audiovisual works on digital networks (such as downloading from the internet). The secondary medium applies to consumers of pirate products who, by watching or lending their pirate copies, are contributing to the growth of this illegal market[71]. Despite only

[68] Act 12,485, of 12.09.11.

[69] These are channels that broadcast qualified space audiovisual works for more than half of their prime time programming schedule. Qualified space works are considered to be any duration not destined for news, sporting events and studio shows.

[70] January 2011 Report by Ipsos and Oxford Economics for the MPAA: "The Economic Consequences of Movie Piracy".

[71] It is worth mentioning a fourth type of piracy called “camcording”, which consists of recording audio and image in movie theaters to sell later. In Brazil, this kind of piracy has one specific aspect: usually the

describing film piracy, the concept can be generally applied to other products made by the audiovisual industry.

Piracy has a variety of negative consequences. As it is an illegal market, there is an incentive to increase informal labor, reduce demand for original products, reduce government tax revenues and strengthen organized crime, which is generally involved in pirate networks. Furthermore, the gains destined for the producers, actors and other industry workers are adversely affected, reducing the incentives for the industry's development, and even other means of artistic and cultural expression.

The study by Ipsos and Oxford Economics measured these impacts on Brazil's economy, estimating that the GDP losses amount to R$ 3.5 billion. The research was conducted on individuals aged 18-64, living in urban areas, over a 12-month period ending in September 2010. They observed that more than half of the population (approximately 55%) contributed directly or indirectly to the pirate film market. The direct losses, that is, expenditure on the consumption and commercialization of audiovisual works, were estimated at R$ 4.02 billion, of which 44% was the result of physical piracy, 41.3% secondary piracy and 14.6% digital piracy. In terms of revenues, the gains could be increased up to R$ 7.26 billion.

For the labor market, piracy also represents significant harm, accounting for approximately 92,000 informal jobs. This is due to the fall in demand for original products commercialized through legal means, affecting the workers in production and retail. In addition, the economy as a whole suffers a reduction of R$ 976 million in tax revenues, seeing as pirate copies do not generally contribute with taxes. This money could be ploughed back into public policies directed at the sector, or even to social programs (for example, education, culture, etc.).

In order to curb these practices and avoid their harmful impacts to society, there are various official bodies that promote anti-piracy policies. Among these, the National Anti-piracy Board (CNCP), which operates in several sectors with repressive, educational and economic actions, is worthy of note. In partnership with ANCINE, the CNCP aims to develop a variety of policies aimed at the audiovisual industry, including: strategies to repress the commercialization and reproduction of pirated works, educational policies to raise awareness in the population about the harmful effects of piracy, and economic tax mechanisms to curb the industry's informality. At ANCINE, the entity that develops these programs is the Anti-piracy Support Center (CACP), which aims to bring together and coordinate the interests of public and private organizations, as well as putting anti-piracy measures into practice.

The CACP's actions are structured around three lines: articulation, education and protection for the audiovisual industry. The articulation line involves a dialogue with the police, government and private entities to obtain support for anti-piracy policies.

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violator records only the audio in Portuguese, which is then synchronized with the video recorded abroad, and the sold in the black market.

The support comes in various forms, including financial (e.g.: financing educational policies), legislative (e.g.: creating intellectual property and copyright laws) or direct action in the struggle against piracy (e.g.: supporting the police in the repression of illegal product street commercialization and border contraband). This support allows for more efficiency in the fight against piracy throughout the Brazilian territory.

The educational axis sees the CACP developing advertising campaigns, leaflets, seminars and lectures to raise awareness in the population, especially at schools and universities, regarding the negative aspects of piracy, by presenting the harm it causes to society and the national economy. This is a preventative policy aimed at reducing the demand for this kind of product and often counts with the support and sponsorship of the Culture and Education Ministries.

Finally, the audiovisual industry production line is intended to provide active action in the form of the repression, monitoring and fight against piracy. In this sense, the support from government and police institutions developed in the articulation line is required. In order to combat the negotiation and distribution of pirate products, both in physical commerce and on the internet, intensive monitoring, investigation and direct action, together with the federal, state and municipal police forces, are required. Support from the Federal Revenue Service is also important as it allows for investigations into virgin media imports that can be used in the future for the illegal reproduction of audiovisual content. In addition, the CACP, in partnership with the CNCP, aims to develop monitoring and auditing strategies for this market.

In 2007, the partnership between the MPA (Motion Picture Association) and ABPD (Brazilian Association of Disc Manufacturers) bore fruit in the creation of a new entity to combat the pirating of audiovisual and phonographic content in Brazil: the Cinema and Music Anti-piracy Association (APCM). It aims to act throughout the national territory in the defense of intellectual property rights, working together with the police and government, and accompanying judicial suits, as well as creating educational campaigns to raise awareness of piracy's socioeconomic impacts[72].

The ACPM operates based on leads from the public. The activities it carries out are similar to those by the other institutions that combat piracy, including the repression of illegal commerce in pirated products on the streets (street vendors and commercial establishments) and investigating downloading sites on the internet and illegal film, series and music reproduction centers. The ACPM also investigates groups who control the importing of raw materials for making intellectual property products (e.g.: virgin CDs and DVDs) and that can be used in the unauthorized reproduction of pirated content.

[72] The National Anti-piracy Board and Ministry of Justice (2011). "Report: Original Brazil: buy this attitude".

5. Conclusion

This section discusses the main challenges faced by the audiovisual industry in Brazil, in light of the diagnoses presented in the previous chapters. The aim is to offer a consistent and well-grounded contribution to the debate regarding the direction the sector's fostering policies should take. We believe it is a promising sector, with prospects of increased demand and opportunities resulting from a paradigm shift. However, changes to public policies could make a telling contribution to overcoming the challenges and achieving its full potential.

Over the course of this work, we have identified gaps that have not been duly addressed by the policy makers, such as the low penetration of digital cinema screens, the need to develop technological film production know-how and the need to purchase the equipment that incorporates new resources. Partnerships with better established production companies that have experience of these new mediums offers a path toward the incorporation of technology and a modernization of the sector.

The low growth of audiovisual exports mirrors the sector's scant internationalization, which could be reverted through greater stimuli for co-productions. These would facilitate the penetration of national products in the global market, both by the incorporation of the big studios' production expertise, as by access to their extensive international distribution networks.

Access to cinema screens and their digitalization

In terms of the exhibition segment, the audiovisual sector in Brazil is still at a fledgling stage when compared to more developed markets.

As revealed in Chapter 2.3, despite recent fostering policies for the audiovisual sector in Brazil[73], the population's access to cinema screens is still restricted due to their high concentration in the big cities. Almost 50% of Brazil's population resides in municipalities without a single cinema screen.

Despite this high concentration, a government effort to promote the decentralization of cinema screens and facilitating the population's access to them has only recently appeared, through the *A Cinema Near You* program[74]. The program, organized by ANCINE in partnership with the BNDES, is aimed at expanding and modernizing national cinema screens, focusing on cities and neighborhoods where they do not, yet, exist or do so in very low concentrations. The program is extensive and its recent creation reveals the focus the government is placing on the production segment within the list of fostering policies for the audiovisual sector.

In addition to the high geographical concentration of cinema screens, the other challenge to be overcome is their digitalization. While 80% of the world's cinema

[73] See Chapter 4.1.

[74] Instituted by Act 12,599, of March 23, 2012.

screens are currently digital, only 31% of those in Brazil[75] have this technology. In addition to the higher quality the technology offers audiences, it imparts substantial savings due to its ease of distribution. However, the conversion of existing screens or construction of new ones requires greater investment by exhibitors. The studios have decided to stop providing 35 mm film reels by 2015, which makes this a high priority item in the public policy agenda. Screens without digital technology will face higher costs or be rendered incapable of exhibiting certain titles, which only aggravates the low penetration of cinema screens in Brazil.

Initiatives already adopted by the government, such as the *A Cinema Near You* program, comprise an important step in resolving this problem. However, due to the current panorama and the adaptation time required, these programs need to be aggressive, allowing the application of the resources needed to achieve the objective.

Exporting Brazil's production

Chapter 3.4 of this report showed that the audiovisual sector in Brazil currently has a trade deficit. In other words, the country imports more audiovisual services than it exports, although the values involved are relatively insignificant compared to the country's total imports.

However, there are two important points to note when making this observation. Firstly, developed nations, such as Germany, Australia and Japan, also find themselves with trade deficits for this sector. Thus, the fact that Brazil's audiovisual sector is also in trade deficit is not, *per se*, an anomaly.

The second point relates to the sector's import/export performance. The relationship between the audiovisual sector's service imports and Brazil's total imports has remained constant at 0.05% for the period between 2000 and 2011. The result changes, however, when we analyze the audiovisual services exports. This shows that the relationship between the audiovisual services exports compared to the country’s total exports fell significantly between 2000 and 2011, going from 0.032% to less than 0.01%. In other words, while audiovisual imports have accompanied the average growth of other sectors, exports have not.

This situation implies a sector that is now less competitive internationally, resulting in the low penetration growth of Brazilian productions abroad. Changing this situation would require, among other factors, redirecting the sector's public policies. In order to make national production competitive in the global market, greater integration with the audiovisual industry's value chains, which operate on global scales, is required. The increase in co-productions with the market's players allows for the absorption of know-how and facilitates access to the global market, in addition to potentially improving the quality of domestic productions. Therefore, changing the rules to facilitate these

[75] ANCINE figures for 2012.

cooperative, mutually beneficial arrangements comprise a crucial step to strengthening the domestic industry on a more sustainable basis.

Ticket prices, taxes and copyright

This study also promoted a comparative price analysis of cinema ticket prices in Brazil. For 2011, the average effective ticket price was US$ 6. This figure is lower than for the other developed countries used for the comparison (the UK, US and France), but higher than that for Mexico. The ticket price in 2005 was approximately US$ 3, similar to the figure for Mexico. This increase is due both to the increased domestic costs (especially labor and rent) and the appreciation of Brazil's currency.

The situation changes when viewing the country's ticket price as a proportion of its per capita income. In this case, the average ticket price in Brazil becomes more expensive, corresponding to almost 0.05% of the average per capita yearly income, for 2011, compared to less than 0.03% for the developed countries in the sample. In Brazil, this figure has fallen since 2005, which is a reflex of the increasing incomes for the period. In other words, although ticket prices in Brazil are compatible with the other countries in absolute terms, they are actually less affordable when taking into account consumers' purchasing power.

The taxes due on the sector comprise part of the explanation for this. According to the Millennium Institute, the taxes due on cinema tickets corresponded to 30.25%, in 2011. For DVDs, that rate rises to 44.2%[76] One specificity of the Brazilian market comes in the form of the CONDECINE Title. This is a fixed tax that is due on audiovisual works released in the Brazilian market for commercial purposes, such as cinemas, films for home reproduction and rentals (DVDs and Blu-rays), and the reproduction of open or closed television. This distorting tax, in addition to contributing to the high prices of the sector's prices, also stimulates piracy and smuggling, with harmful impacts for all of society.

A potential obstacle to the development of the sector in Brazil may arise if the CONDECINE is levied on VoD. By taking this step, one would hurt consumers (given the reduction in movies available through VoD) and stimulate piracy (because of the hardship to watch movies legally). This is a significant threat to the development of this dynamic and promising segment of the industry, and could ultimately affect adversely the entire sector.

Disrespect for copyright, or piracy, is one of the most harmful practices to a market's efficient functioning. It causes perverse effects on welfare by promoting the distortion of agents' incentives. Unfortunately, this phenomenon is common in Brazil, affecting almost every sector. Piracy reduces the financial return for innovative agents, which hampers the activity. Piracy also makes tax evasion easier, impacting negatively on public coffers and, in the end, on the population that uses public services financed by

[76] See <http://www.imil.org.br/divulgacao/tributacao-transparente-brasil/>, accessed on: 02/03/2014.

these taxes. Therefore, the development of Brazil's audiovisual sector requires effective policies to combat piracy and ensure copyright protection.

We can mention a few concrete measures to alleviate the hardships imposed by piracy: (i) pass a law against "camcording", which is a widespread phenomenon in Brazil; (ii) create rules to accelerate the removal of illegal merchandise from the marketplace once it has been detected; (iii) fight piracy online, both peer-to-peer sharing and illegal streaming; and (iv) expedite the destruction of illegal merchandise that has been seized.

Human resource training and entrepreneurship

As the industry is dynamic and creative, the audiovisual sector requires professionals with appropriate profiles. One of the objectives of public policy is to produce professionals that fit those profiles. It is important to find cooperation from agents already operating in the audiovisual sector that already possess the most up to date technical know-how. One way of promoting the transmission of knowledge is by establishing partnerships with studios and production companies that, in exchange for a modest reduction in their tax burden, would commit to training interested parties in a way that is connected with the structured educational centers, such as colleges and universities[77].

As we pointed out in Chapter 2, the audiovisual sector is characterized by the outsourcing of tasks, normally to small and medium businesses that specialize in carrying out specific tasks found along the value chain. This is the ideal environment for entrepreneurship, through the formation of startups that provide these services. Many companies that are now well established and leaders in their segments began life as small service providers for the big studios. The evolution of these businesses was essential to the development of modern techniques, in particular special effects.

Focused public policies can further stimulate this environment that is already favorable to entrepreneurs. One channel could be the concession of lines of credit at more advantageous conditions for the sector's small businesses. Many of the activities require equipment and software purchases that can add up to substantial amounts. Another option could be a different tax regime (in addition to current conditions, such as the "Super Simples"). In order to avoid distortion and iniquity, clear and transparent rules are needed regarding eligibility for these benefits.

Sustainability

As regards the audiovisual content production segment, especially the production of films, Brazil's audiovisual industry still faces many hurdles on its path to full development.

[77] The Brazilian tax laws grant exemptions for firms that invest in employers training, whose costs can usually be deducted from taxable income.

As laid out in Chapter 4.1, since 1995, the national cinematographic market has grown considerably, driven by laws that provide incentives for culture, the institution of fostering mechanisms, and by the country's development as a whole. The creation of the Audiovisual Sector Fund (FSA), in 2006 (see Chapter 4.1), was an important landmark for the industry, with the total annual number of national releases going from 46 films in 2005 to around 75 the following years. In 2013, the number of new releases hit three figures.

Despite the considerable growth in the number of Brazilian releases for the period, the share of national films for all tickets sold did not increase in the same proportion, indicating that the strong incentive provided by the government to increase the offer was not accompanied by demand. The share of national films for all releases went from 14.8% in 2002, to 32% in 2013. However, the box office share has remained relatively stable over the decade analyzed, with 2003 and 2010 being exceptions, marked by the release of *Carandiru* and *Tropa de Elite 2*, respectively, which were national box office record breakers[78].

The public's response to the government-provided stimuli to increase the offer of national films can also be seen by comparing the evolution of real revenues for national and foreign production. While total revenues for national productions has remained reasonably stable over the decade in analysis, foreign production has experienced strong revenue growth since 2008, accompanying the Brazilian economy's cycle of expansion.

One of the results of the incentive policies for the development of national production, which also demonstrates the weak demand compared to the efforts made to expand the offer, has been the creation of an audiovisual sector in deficit that is, therefore, heavily dependent on public subsidies. According to ANCINE[79] figures for funds raised by project, the results show that, of 880 national films[80], 569 (64.7%) made a loss[81], 119 (13.5%) made a profit, and the remainder (192 films or 21.8% of the total) did not receive any incentives.

Separating these figures for the duration of the main regulatory landmarks for the audiovisual production segment[82], we can see that, despite the new production fostering mechanisms[83] being much more committed to the sector's financial balance, the proportion of loss making films compared to the total number of films produced is still very high (approximately 63%). This shows that the national production fostering policy

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[78] According to ANCINE (http://oca.ANCINE.gov.br/filmes_bilheterias.htm), of all the films released between 2001 and 2012, *Tropa de Elite 2* drew the largest audience for a national film, with *Carandiru* ranking fifth.

[79] Available at: < http://oca.ancine.gov.br/producao.htm >. Accessed on: 01/17/2014.

[80] Production of 880 national films between 1995 and 2012.

[81] Loss and profit making defined by comparing box office revenues to the funds raised through incentive policies.

[82] The creation of ANCINE in 2001 and the Audiovisual Sector Fund (FSA) in 2006.

[83] See Chapter 4.1.

has stimulated the offer, but this has not been accompanied by the demand, leading to a loss making sector that is highly dependent on resources from incentives.

Within this context, the current fostering policy must be reviewed if the sector is to develop in a sustainable manner in the future. As stated in the analysis of Brazil's experience, the majority of national blockbuster productions that were also well received in the international market counted, to some degree, with the participation of foreign production and/or distribution companies. Therefore, reproducing and refining these success stories, which involved co-productions, promotes a perennial development of the industry, leading to substantial benefits for Brazilian society.

Appendix I – Input-output model for the AV industry

This chapter complements the previous one and allows us to more accurately quantify the importance of the audiovisual industry to the rest of the economy. The use of input-output techniques, which have been well-established for these kinds of analyses, are also employed in this instance. These exercises allow us to determine to what measure changes in the audiovisual industry (such as incentive policies that cause an increase in demand for its product) will affect the rest of the economy. These estimated technical coefficients are, therefore, a valuable tool for policy planning for the industry.

Brief description

The Input-Output Model (IOM) condenses an information system on the country's production structure and allows the analysis of production flows for intermediary and final goods. Increased production in a sector requires the use of inputs made by other sectors in the economy. Thus, changes in demand for a given product will provoke an increase in production, which, in turn, increases the demand for the production in these other sectors. A methodology that uses the IOM takes into account all the relationships between the economy's sectors, thereby allowing a simulation of both the immediate effects of a measure (on the affected sector), as well as its indirect consequences to other sectors. This set of information means that the IOM is a valuable tool for economic analysis and the development of public policies.

The IOM is constructed using figures from National Accounts, as calculated and classified by the IBGE (Brazilian Institute of Geography and Statistics). The IOM used in this study originally comprised 56 sectors and relates to the production flows taken for 2009. As the audiovisual sector lies within the information services sector, the former was extracted from the latter based on information from the National Accounts and the Ministry of Labor and Employment's RAIS (Annual Report on Social Information). Thus, the IOM used in this study included 57 sectors, with 18 of these connected to service activities.

Results

The first important point on the audiovisual sector that we can extract from the IOM regards the production multiplier. Based on the sector's flow of inputs and outputs, it is possible to infer how much each monetary unit spent on final audiovisual consumption generates in direct and indirect production for the respective production chain. According to the 2009 IOM, the audiovisual production multiplier is 1.65. This means that, in addition to direct production, each R$ 100 spent on final audiovisual demand generates an additional R$ 65 of indirect production. For the sake of comparison, the average production multiplier for the other service sectors is 1.54.

The IOM can be used to measure multipliers for employment, added value, imports and taxes. All these indicate the impact to other sectors resulting from changes to the audiovisual industry. The table below presents the values calculated for the audiovisual sector, compared to the other service sectors.

Figure 46. Multipliers for audiovisual industry

	Multiplier:			
	Employment	Added Value	Imports	Taxes
Audiovisual	**2.09**	**1.76**	**1.86**	**1.59**
Position among the service sectors	4th	3rd	15th	15th
Service sector average	1.67	1.49	1.99	1.60
Standard Deviation	0.63	0.25	0.58	0.42

Source: National Accounts of Brazil – IBGE (2009). Developed by: Tendências.

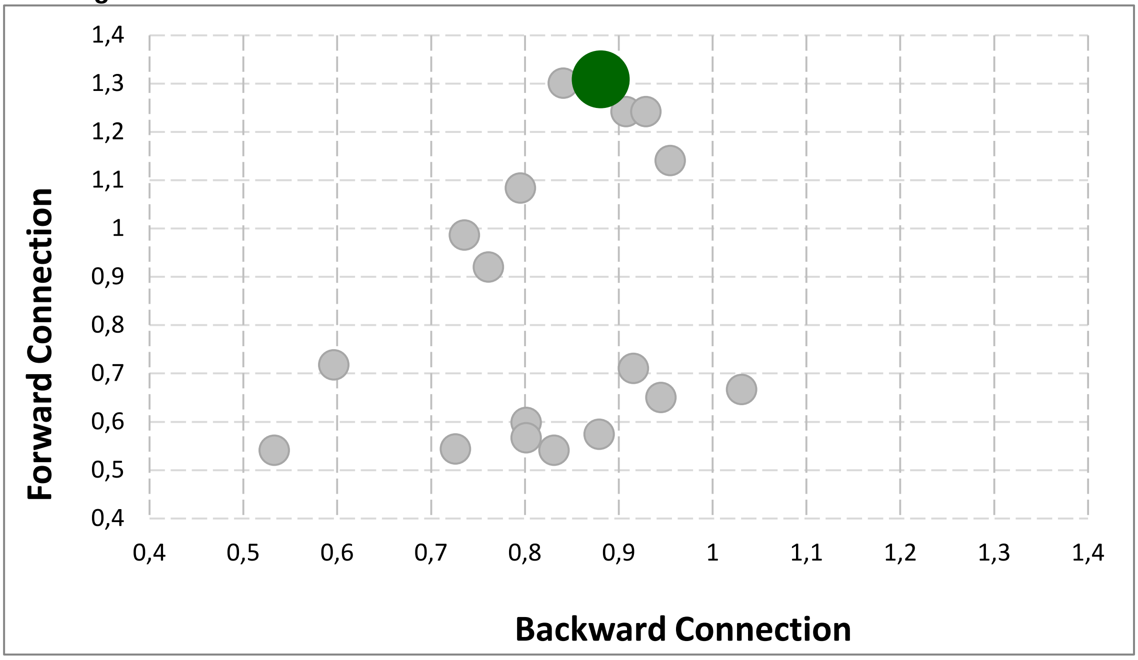
Let us take the employment multiplier, for example, which is equal to 2.09. This figure means that for each job created in the audiovisual industry, another 1.09 jobs are created in other sectors of the economy, due to the induced demand. The service sector average is 1.67 and the audiovisual sector comes in 4th place, among the highest multipliers in the services sector, which includes 17 industries.

Regarding the intensity of the relationship between the audiovisual sector and the Brazilian economy's other sectors, the IOM allows us to calculate the connection indicators, which indicate which sectors have the most sequencing power within the country's production structure. In other words, we can identify those with the greatest demand for the audiovisual sector's products, as well as those with the greatest input supply for it. Using the Rasmussen-Hirschmann methodology[84], the backward connection indicator for the audiovisual sector is 0.88, while the forward connection indicator is 1.30. These coefficients indicate that the sector is in demand from the other sectors, but demands less from other sectors, which is typical of services, which often features intensive labor.

The chart below compares these results (green circle) with those found for the other service sectors, demonstrating that the audiovisual sector is the largest offerer of inputs (forward connection) among the national economy's service provider sectors.

[84] MILLER, R.E., BLAIR, P.D. Input-Output Analysis: Foundations and Extensions. Englewood Cliffs: Prentice-Hall, 2009.

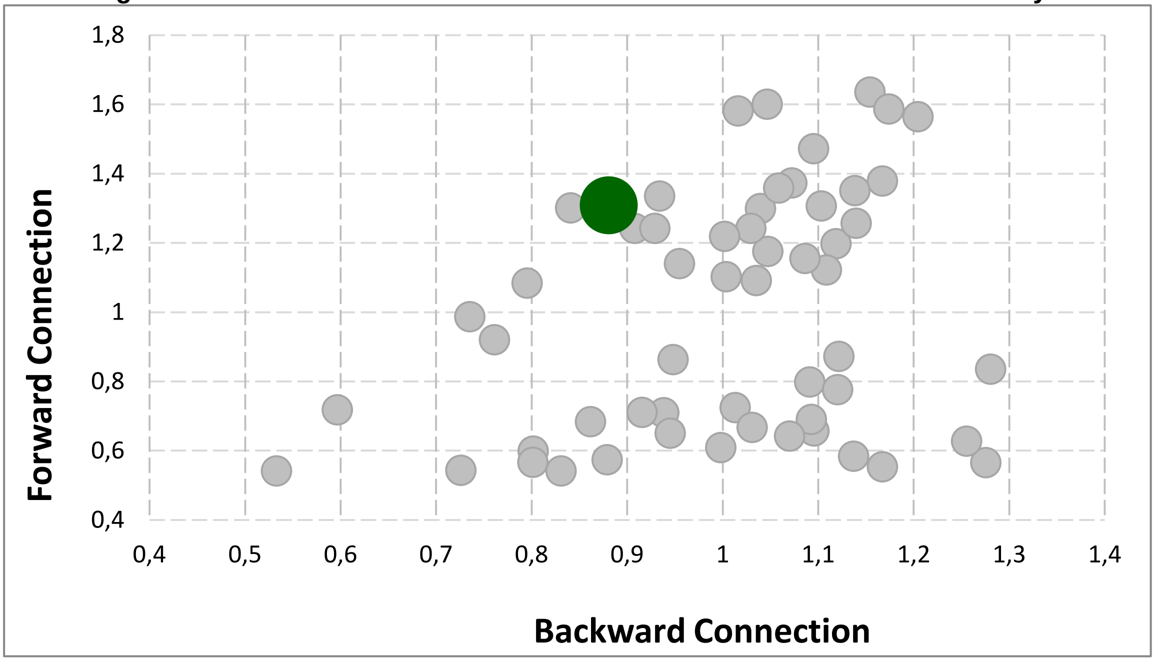
Figure 47. Rasmussen-Hirschmann connection indicators for services sectors



Source: National Accounts of Brazil – IBGE (2009). Developed by: Tendências.

The following chart shows the same comparison, but now considering all of the economy's sectors. Even in comparison to the rest of the economy, the audiovisual sector's forward connection indicator is still high, revealing its importance in absorbing final demand shocks that affect the rest of the production structure. The backward connection indicator is, as expected, lower than the average. As the sector features intensive labor, the demand for inputs from other sectors is limited, implying a low connection coefficient.

Figure 48. Rasmussen-Hirschmann connection indicators for the economy



Source: National Accounts of Brazil – IBGE (2009). Developed by: Tendências.

Based on the forward and backward connections, we can assess the audiovisual sector's field of influence; in other words, the main sectors that demand audiovisual services and those that its production demands.

Figure 49. Audiovisual sector's field of influence

Sectors in demand by the audiovisual sector	Sectors that demand the audiovisual sector
Food and Drink Textiles Wood products - furniture only Petroleum and coke refining Automotive parts and accessories Other transport equipment Electricity and gas, water, wastewater and urban cleaning	Agriculture, forestry, forest exploitation Food and Drink Textiles Wood products - furniture only Petroleum and coke refining Chemical products Automotive parts and accessories Other transport equipment Electricity and gas, water, wastewater and urban cleaning Trade Transport, storage and mail Financial intermediation and insurance

Source: National Accounts of Brazil – IBGE (2009). Developed by: Tendências.

Appendix II – Definition of the AV industry

The information presented in Chapter 3 was extracted from micro data in the Annual Report on Social Information (RAIS) by the Ministry of Labor and Employment[85].

In order to extract the figures for employment, payrolls, employee education and the number of establishments, the sectors under analysis were defined according to the National Economic Activity Classification (CNAE) version 2.0, which is also adopted by the Ministry of Labor and Employment. The categories that compose each sector present in this report are listed below.

Figure 50. CNAE definition of the audiovisual sector

Audiovisual Sector	
CNAE	Description
5911-1/01	Cinematographic studios
5911-1/02	Production of films for publicity
5911-1/99	Production activities not previously specified
5912-0/01	Dubbing services
5912-0/02	Sound mixing services for audiovisual production
5912-0/99	Post-production activities not previously specified
5913-8/00	Cinematographic distribution of video and television programs
5914-6/00	Cinematographic exhibition activities
6021-7/00	Open television activities
6022-5/02	Activities related to Pay TV, except schedulers
6141-8/00	Cable subscription television broadcasters
6142-6/00	Microwave subscription television broadcasters
6143-4/00	Satellite subscription television broadcasters
4649-4/07	Wholesale trade of films, CDs, DVDs, tapes and discs
4762-8/00	Retail trade of discs, CDs, DVDs and tapes
7722-5/00	Rental of video tapes, DVDs and similar
1830-0/02	Reproduction of video in any format
6022-5/01	Schedulers

Source: MTE. Developed by: Tendências.

Figure 51. Definition of the other sectors

Other Sectors	
CNAE	Description
58	Printing Sector
79	Tourism Sector
551	Hotels Sector
931	Sporting Activities

Source: MTE. Developed by: Tendências.

[85] Available at: <http://bi.mte.gov.br/bgcaged/login.php>. Accessed on: 01/31/2014.

Appendix III – Employment, wages and the number of companies for each segment

Figure 52. Number of jobs

	2007	2008	2009	2010	2011	2012
Audiovisual	87.924 (0,35%)	90.509 (0,34%)	94.408 (0,33%)	101.330 (0,33%)	109.477 (0,34%)	109.834 (0,33%)
Printing	105.102 (0,41%)	111.269 (0,41%)	108.433 (0,38%)	109.738 (0,36%)	108.417 (0,34%)	106.134 (0,36%)
Tourism	47.594 (0,19%)	53.744 (0,20%)	54.521 (0,19%)	62.049 (0,20%)	67.771 (0,21%)	72.137 (0,22%)
Hotels	222.582 (0,87%)	232.275 (0,86%)	240.232 (0,84%)	253.729 (0,83%)	266.904 (0,84%)	280.110 (0,85%)
Sports	104.713 (0,41%)	111.199 (0,41%)	118.610 (0,41%)	127.943 (0,42%)	138.239 (0,43%)	151.247 (0,46%)

N.B..: Figures in brackets represent the percentage of the total service industry jobs
Source: MTE. Developed by: Tendências.

Figure 53. 2012 average wage (R$)

	2007	2008	2009	2010	2011	2012
Services	1.333	1.473	1.605	1.687	1.847	2.028
Audiovisual	2.506	2.558	2.673	2.632	2.684	2.735
Printing	2.659	2.667	2.515	2.520	2.636	2.807
Tourism	1.477	1.568	1.469	1.564	1.625	1.756
Hotels	894	913	927	949	973	1.027
Sports	1.353	1.290	1.346	1.437	1.618	1.814

N.B..: Figures adjusted by IPCA/IBGE.
Source: MTE. Developed by: Tendências.

Figure 54. 2012 payrolls (R$ thousands)

	2007	2008	2009	2010	2011	2012
Audiovisual	3.040.247 (0,58%)	3.194.333 (0,55%)	3.593.479 (0,56%)	3.718.573 (0,54%)	3.980.784 (0,53%)	4.167.255 (0,52%)
Printing	3.116.278 (0,60%)	3.379.094 (0,58%)	3.344.884 (0,52%)	3.407.866 (0,49%)	3.496.399 (0,47%)	3.489.210 (0,43%)
Tourism	815.497 (0,16%)	932.326 (0,16%)	1.014.143 (0,16%)	1.154.593 (0,17%)	1.338.856 (0,18%)	1.585.809 (0,20%)
Hotels	2.698.254 (0,52%)	2.848.382 (0,49%)	3.061.218 (0,48%)	3.260.767 (0,47%)	3.556.406 (0,48%)	3.941.288 (0,49%)
Sports	1.711.679 (0,33%)	1.865.767 (0,32%)	2.033.194 (0,32%)	2.215.424 (0,32%)	2.515.017 (0,34%)	2.761.607 (0,34%)

N.B..: Figures in brackets represent the percentage of the total service industry figure Figures adjusted by IPCA/IBGE.
Source: MTE. Developed by: Tendências.

Figure 55. Employees with a college degree (%)

	2007	2008	2009	2010	2011	2012
Services	16,3%	16,6%	17,6%	17,6%	17,9%	18,5%
Audiovisual	20,0%	21,3%	22,5%	23,3%	22,1%	23,1%
Printing	21,2%	21,9%	22,1%	24,3%	25,3%	27,0%
Tourism	18,5%	19,5%	20,4%	21,5%	22,0%	23,4%
Hotels	4,1%	4,1%	4,2%	4,3%	4,5%	4,8%
Sports	14,4%	15,6%	16,9%	18,7%	21,5%	23,3%

Source: MTE. Developed by: Tendências.

Figure 56. Audiovisual production segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 135,247	R$ 162,948	R$ 201,988	R$ 215,563	R$ 255,408	R$ 274,532
Jobs	8,073	9,997	12,019	13,389	15,815	17,059
Jobs in Dec.	5,613	6,582	7,975	8,660	10,169	11,207
Estabilishments		1,245	1,458	1,705	1,987	2,206
Average wage	R$ 2,028	R$ 2,073	R$ 2,137	R$ 2,056	R$ 2,031	R$ 2,072
Empl. With a college degree	21%	22%	22%	23%	23%	26%

Source: MTE. Developed by: Tendências.

Figure 57. Audiovisual distribution segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 183,129	R$ 189,707	R$ 201,075	R$ 231,533	R$ 220,528	R$ 246,932
Jobs	6,975	6,257	5,930	8,572	6,692	6,243
Jobs in Dec.	4,625	4,418	4,136	4,762	4,920	4,416
Estabilishments		525	440	375	333	294
Average wage	R$ 2,636	R$ 2,952	R$ 3,348	R$ 3,384	R$ 3,365	R$ 4,083
Empl. With a college degree	20%	24%	26%	29%	26%	33%

Source: MTE. Developed by: Tendências.

Figure 58. Audiovisual reproduction segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 24,812	R$ 21,634	R$ 18,202	R$ 15,861	R$ 14,594	R$ 18,100
Jobs	1,027	1,058	1,077	760	696	1,322
Jobs in Dec.	694	671	574	543	490	722
Estabilishments		66	58	63	61	63
Average wage	R$ 2,424	R$ 2,412	R$ 2,761	R$ 2,357	R$ 2,269	R$ 1,917
Empl. With a college degree	23%	23%	24%	25%	22%	14%

Source: MTE. Developed by: Tendências.

Figure 59. Exhibition segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 95,239	R$ 97,521	R$ 109,321	R$ 124,749	R$ 145,889	R$ 163,687
Jobs	13,849	14,408	15,519	19,302	21,679	23,935
Jobs in Dec.	7,835	7,860	8,540	10,095	10,672	11,641
Estabilishments		660	671	672	725	733
Average wage	R$ 871	R$ 884	R$ 938	R$ 939	R$ 984	R$ 1,041
Empl. With a college degree	3%	3%	2%	3%	3%	3%

Source: MTE. Developed by: Tendências.

Figure 60. Open television segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 2,014,483	R$ 2,197,890	R$ 2,370,462	R$ 2,479,243	R$ 2,615,695	R$ 2,709,729
Jobs	47,464	53,070	53,896	56,593	61,168	63,058
Jobs in Dec.	39,118	41,992	43,738	46,695	49,648	50,400
Estabilishments		524	570	579	640	677
Average wage	R$ 4,159	R$ 4,112	R$ 4,325	R$ 4,222	R$ 4,262	R$ 4,226
Empl. With a college degree	32%	33%	34%	35%	37%	38%

Source: MTE. Developed by: Tendências.

Figure 61. Pay TV segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 356,335	R$ 338,037	R$ 501,457	R$ 468,690	R$ 551,269	R$ 585,610
Jobs	17,089	19,837	27,079	26,341	29,970	29,937
Jobs in Dec.	12,035	13,897	14,726	16,681	20,844	19,809
Estabilishments		279	365	316	325	343
Average wage	R$ 2,528	R$ 2,102	R$ 2,198	R$ 2,083	R$ 2,179	R$ 2,256
Empl. With a college degree	32%	28%	29%	30%	18%	19%
Subscribers	5,348,571	6,320,852	7,473,476	9,768,993	12,744,025	15,399,435

Source: MTE, ANATEL. Developed by: Tendências.

Figure 62. Audiovisual sales and rentals segment

	2007	2008	2009	2010	2011	2012
Total Payroll (R$ thousands)	R$ 231,001	R$ 186,596	R$ 190,975	R$ 182,934	R$ 177,403	R$ 168,666
Jobs	33,586	27,701	26,782	24,837	22,862	20,997
Jobs in Dec.	18,004	15,089	14,719	13,894	12,734	11,639
Estabilishments		7,363	6,615	5,910	5,427	4,820
Average wage	R$ 923	R$ 870	R$ 922	R$ 967	R$ 1,003	R$ 1,059
Empl. With a college degree	4%	4%	4%	4%	5%	5%

Source: MTE. Developed by: Tendências.