

**THE SPANISH MOVIE PRODUCTION, 1940-2014: FROM THE POSTWAR
TO NOWDAYS**Henry ARAY¹**Abstract**

Time series data over the 1940–2014 period are used to show a picture of how Spanish movie production evolved after the civil war. We propose two approaches to analysing the evolution of the production of movies. First, we simply focus on how movie production evolved over time; we are able to identify three phases, determined by the starting of the decline of the García Escudero period (1966) and the year 1994 when Act 17/1994 was issued and Belle Epoque won the Oscar. Second, we alternatively propose estimating the fluctuations in the production of movies to a lineal trend (business cycle) over the 1940–2014 period and we are also able to identify three phases, whose key events were the Royal Decree 3304/1983 (the so called Miró Act) and Act 55/2007. Moreover, García Escudero's policy and the Miro Act seem to have equally deviated the production of movies from its long term trend but in opposite directions.

Keywords: Movie production; Legislation, Spain.

JEL Classification: L82; N70; Z10.

1. Introduction

When analysing the Spanish film industry over time, typically researchers establish phases in order to provide a better understanding of the industry. Thus, Pozo (1984) and Barrachina (1995) identified periods during the Franco regime as consisting of the first post-war period (1940–1950), the industry recovery period (1950–1960), the Salamanca Talks² period, the period of the policy of García Escudero³ (1962–1968),⁴ and the period of Spanish cinema towards the transition to democracy (1970–1975). Similar was the proposal of Montes-Fernandez (2011) who added the 1975–1988 democratic period. Caparros (1983) and Higginbotham (1988) analysed the Franco regime period, Hernández-Ruiz and Perez-Rubio (2004) and Ardánaz (1998) focused on the transition period to democracy in Spain, while Caparros (1992) studied the 1975–1989 democratic period.

In doing so, researchers are biased to concentrate on well-defined periods of Spain's contemporaneous political history – i.e. dictatorship, transition to democracy, and democracy –, which is plausible due to the major changes that were undertaken in Spain after the end of the dictatorship period. However, different approaches have been

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²This was a group of critics, directors, representatives of the intellectual sector and state agencies aimed at offering reflections about the different cinematographic streams that were taking place in Spain after the Civil War

³José María García Escudero was a renowned lawyer, journalist and writer who was general director of cinematography twice during the Franco regime. He was considered to have had a large influence on the Spanish movie industry.

⁴However, Jose María García Escudero was removed from office in December, 1967.

proposed by Faulkner (2013), who revised the history of Spanish cinema across the decades, and Triana-Toribio (2003), who divided the history of Spanish cinema into the following periods: 1939–1962, 1962–1982, 1982–1989 and 1990 onward.

In this article, we base the analysis on an overview of the data, in line with Diez Puertas (2003) who focused on the crisis of production of films in Spain during the 1931–2001 period. Thus, time series data are used to show how movie production in Spain has evolved over the 1940–2014 period. We propose two approaches. First, we observed the evolution of the series over time and we were able to identify three phases with respect to the production of movies. The first period goes from the end of the civil war to the year 1966, when the García Escudero period was just about coming to an end. The second phase goes from 1967 to 1994, when two important events for the Spanish film industry occurred: Act 17/1994 was passed and the Oscar for best foreign film went to *Belle Époque*. The third phase goes from 1995 to 2014, or up to the present date, since we assume that few changes have occurred in the last two years. We provide details of the main reforms aimed at the industry and some events that are assumed to have affected the evolution of the production of movies over the 1940–2014 period. Moreover, additional basic statistics are shown with respect to each phase in order to compare the changes in the industry across the phases.

Second, we alternatively propose analysing the series looking at to what extent it deviates from the trend. We therefore estimate a linear trend and calculated the deviations with respect to it. This approach could be understood as an analysis of the short-term fluctuations (the deviations) in relation to the long-term trend, i.e. the movie production business cycle. A positive linear trend is estimated and, according to that, we are again able to identify three phases of expansion or recession that do not coincide with the previous analysis, since they are, in fact, different approaches and each one has to be understood according to its own methodology. The key years that allow us to identify the phases of the deviations in relation to the long-term trend are 1983 and 2007. Thus, during the 1940–1983 period, the amount of movie produced was above the long-term trend (expansion period), and during the 1984–2006 period, it was below the long-term trend (recession period), before rising above again during the 2007–2014 period (expansion period). It is striking that the changes witnessed in 1983 and 2007 could be related to major reforms to the movie industry that were pushed through via legislation: Royal Decree 3304/1983 (the so-called *Miró Act*) and the Act 55/2007. The *Miró Act* aimed at improving the quality rather than increasing the quantity of movies produced. However, it failed in promoting successful films from a box office point of view. Act 55/2007 aimed at creating a profitable industry. According to López-González (2008), in the mid-2000s the box office revenues of films produced by the Spanish industry accounted for the lowest share of total revenues since 1982, even though production had recovered.

This article is organized as follows. The next section shows an overview of the data. Section 3 shows the phases of movie production over time, while section 4 provides the analysis of the data across the phases. Section 5 proposes an alternative view of the data by looking at the movie production business cycle. Finally, conclusions are drawn in Section 6.

2. Overview of Data and Some Concepts

Our data were drawn from the *Estadísticas de Cine y Audiovisuales* (Cinema and Audio-visual Statistics) report published by the Spanish Ministry of Education, Culture and Sport. We concentrate on the 1940–2014 period using annual data on the total production of feature films. Therefore, we include Spanish films and films produced jointly with foreign partners (co-productions).

According to the Spanish Ministry of Education, Culture and Sport, a film is considered a "Spanish film" if it is made by a Spanish or European firm located in Spain that fulfils the following requirements: 75 per cent of the authors (director, screenwriter, director of photography and music composer), actors, and the rest of the artists, as well as the creative and technical staff must be Spanish citizens, European Union citizens, or citizens of any other European state holding an agreement with the European Union Economic Area, or have a Spanish residency permit or a residency permit of any of these states. In any case, the director of the film must fulfil this requirement. Moreover, the language of the film should be Spanish or any other official language of Spain. The filming, except screenwriting, postproduction and laboratory work must be carried out in the European Union.

According to the Spanish Ministry of Education, Culture and Sport, a film is said to be a co-production with one partner whenever the share of the Spanish participation is 20 to 80 per cent of the production cost of the film. Moreover, in the case of multiple partners, participation must be 10 to 70 per cent. In addition, the participation of artists and technical staff must be proportional to the economic participation. In general, the economic participation must not exceed 50 per cent.

Table 1 shows the basic statistics for the series with respect to number of feature films produced in the 1940–2014 period. As can be seen, Spain produces, on average, 96 films per year with a deviation of 49 films. On average, 68 Spanish films are produced with a deviation of 33, while there are on average 28 co-productions with a standard deviation of 23. The shares of production of Spanish films and co-productions are 70 and 30 per cent respectively.

Table 1. Basic Statistics

	Total Production	Spanish Films	Co-productions
Mean	96.3733	67.9066	28.4667
Standard Deviation	49.1379	33.2432	23.0102
Share	100%	70%	30%

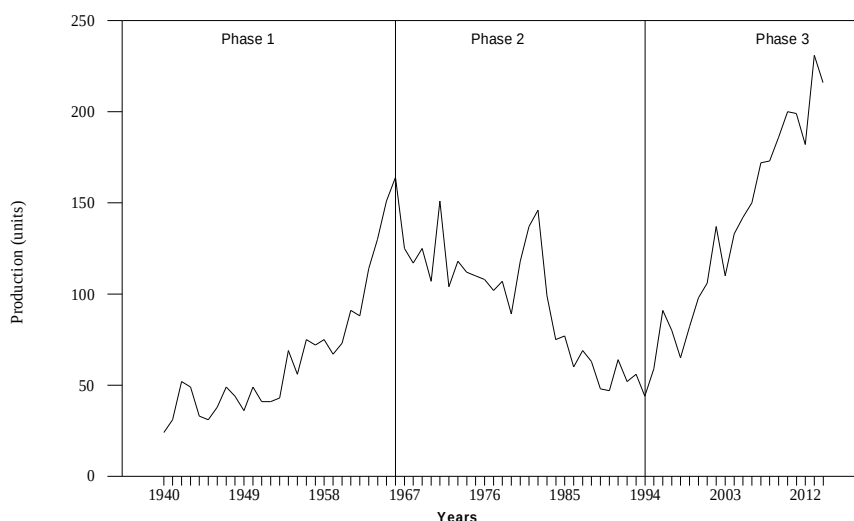
3. Identifying Phases in the Production of Movies according to its Evolution over Time

Figure 1 plots the evolution of Spanish movie production. It can be observed that the production of films has fluctuated considerably over time.

According to the evolution of the total amount of movies produced in Spain every year over time, three phases can be observed in Figure 1. The first phase spans 1940 to 1966 and shows a positive trend related to the protective and promotional plans for reviving movie production. In fact, after the Spanish Civil War and the beginning of the Franco regime there was no specific film policy. In general, the Franco

government implemented a highly interventionist policy and the movie industry was no exception. In 1941, the government began to regulate the movie industry through protective measures that established a minimum share with respect to the showing of Spanish films in cinemas: for every six weeks of foreign film being shown, there had to be one week of Spanish films being shown. Later on, this share was reduced to five weeks of foreign films to one week of Spanish films. In addition, restrictions were imposed on imported films, and a quota was set specifically for US films. Moreover, the union credit was introduced, which consisted of a fund that covered up to 40 per cent of film budgets.

Figure: 1. Evolution of the total amount of movies produced in Spain during the 1940–2014 period.



Source: Spanish Ministry of Education, Culture and Sport

According to Barrachina (1995), there was a perceived need to develop a movie industry in line with the objectives of the regime, and as a result the framework established in the Law on Defence of National Industry of November 24, 1939, for the basic industries of the national economy was applied to the film production industry, which confirms the strategic value that the government attributed to movies as useful propaganda for the regime. Moreover, in 1947, the Institute for Research and Cinematographic Experiences (*Instituto de Investigaciones y Experiencias Cinematográficas*, IIEC) was created with the aim of providing theoretical and practical training to the students in the disciplines that make up film production.⁵

The creation of the Ministry of Information and Tourism in 1951, which changed the State administrative organization, affected, among other sectors, the cinema industry. Thus, the Order of July 16, 1952 sought to avoid speculative activities

⁵ The Official Cinematography School remained active from the academic year 1947–1948 to 1974–1975.

related to obtaining import permits; by which Spanish producers could finance products of poor quality in order to get movie import permits for successful foreign movies.

Following the autarchy policy, in 1955, a new distribution quota was also established which made it compulsory to distribute one Spanish film for every three foreign films. Therefore, the distribution quota was an additional measure that complemented the already compulsory share of Spanish films being shown.

In 1962, when José María García Escudero was appointed head of film policy, the IIEC was renowned as the Official Cinematography School (*Escuela Oficial de Cinematografía*, EOC). Moreover, some changes were made. For example, the union credit became the cinematography credit – a medium-term loan managed by the Industrial Credit Bank⁶ – and a direct subsidy of up to 40 per cent of film production costs, depending on the category of the film, was introduced. The funding program was targeted specifically at films exalting national pride or those of interest to the regime from a political, moral and social standpoint.

In 1964, following the ministerial order of August 19 on "Rules for the development of Spanish Cinematography", the categories were eliminated and only one kind of subsidy – of 15 per cent of box office revenues – was established. However, this order especially favoured co-productions since the law did not specify a minimum Spanish participation to apply for the funding. In 1971, this subsidy was abolished.

No other prior government had legislated the audio-visual sector before. Therefore, the Franco regime set the basis for the program to fund the production of Spanish movies. Somehow, the successive film policies in Spain were influenced by the initial legislation of the Franco regime. During this period, Spanish cinematography gained an identity, though it was imposed by political interests.

The second phase spans 1967 to 1994 and shows a negative trend with some peaks in 1971 and 1982. At the end of the phase 1, Franco's policy fostered the production of films, which had returned to the pre-Civil War level (Padros-Reig and Muñoz-Fernandez, 2008). However, as pointed out by Martínez-Álvarez (2006), the critiques from the conservative sectors of the state, on the one hand, and the demand for more freedom from the left-wing sectors, on the other, makes obvious the instability of the previous policy. Moreover political and economic factors had had an influence on the decline in movie production in the late 60s. In 1967, Admiral Luís Carrero Blanco was appointed as Deputy Prime Minister, a devaluation of the domestic currency was decreed and a reduction of public spending was issued, which also affected the film industry by reducing the public funds available for movie production. At the end of that year, García Escudero was removed from office. Additionally, the Matesa case⁷ in 1969 worsened the critical situation the sector found itself in, since the

⁶ The Industrial Credit Bank was founded in 1920 as a private bank. From the beginning of the Franco regime, public participation in the bank began to increase and in 1962 it was finally nationalized. The bank played a key role in boosting the growth of the Spanish economy in the 1960s.

⁷ Matesa (Maquinaria Textil del Norte S.A.) was a Spanish firm that was investigated for fraud to the Industrial Credit Bank.

Industrial Credit Bank closed. Hence, in 1970, the state had a big debt with the cinematography sector, which led to its decapitalization.⁸ In 1971, a new credit regime for the sector was established and in 1973, the royal decree 3984/1973 of February 22nd designated the cinematography sector as a priority sector to be funded by official credits, as collected in the third plan of development of the film industry (Martínez-Álvarez, 2006).

According to Ardánaz (1998) the Spanish cinema had already started its own transition in the late 60s with the so-called New Spanish Cinema (Nuevo Cine Español), as a result of the Manuel Fraga policy aimed at cleaning up the image of Spain in the world by fostering more quality movies. However, during the first 10 years of this phase, legislation aimed specifically at reforming and developing the film industry was scarce. It would not be until 1977, during the Spanish transition to democracy, that Royal Decree 3071/1977 of November 11th came into force. The decree aimed at putting the Spanish industry on a par with major European producers. It abolished censorship, filming permits, and maintained protective measures. In 1980, Act 3 of January 10th established new rules for the showing and distribution of Spanish films.

In the years of the socialist government of Felipe González,⁹ there was an important drop in the industry from 1983 onwards, as can be seen in Figure 1. This might have been due to the general economic reforms carried out by the government, as well as the specific reforms aimed at the cinema industry introduced by Pilar Miró,¹⁰ who was in charge of the *Dirección General de Cinematografía* (General Directorate for Cinematography) from 1982 to 1985. She implemented a protectionist film policy inspired by the French model and by the previous policy adopted by García Escudero. Thus, in 1983, Royal Decree 3304/1983 of December 28th was issued,¹¹ whose main objective was to improve the quality rather than increase the quantity of movies produced. Incidentally, in this year, Spain won the first Oscar for *To Begin Again* as best foreign film. On the one hand, the so-called Miró Act failed in promoting successful films from a box office point of view; while, on the other, it increased film costs, perhaps as a result of the generous subsidy policy. The legislation considered movies to be cultural products, while neglecting the profitability of the industry. This experience shows that the objective of legislation has not always been to increase the number of feature films produced, nor the level of employment in the cinema industry.

In 1986, Royal Decree 1257/1986 of June 13th, whose aim was to adapt the film legislation to that of the European Union, was issued.¹² At about the same time, the Goya Awards were created as imitation of the Oscars, which are recognized

⁸ *Deuda del fondo de protección estatal a los productores españoles.*

⁹ Felipe González is a Spanish politician who was prime minister of Spain during the 1982–1996 period.

¹⁰ Pilar Miró was an important producer, writer and director in the cinema and television industries.

¹¹ This royal decree is commonly referred to as the "Miró Act".

¹² Spain became a member of the European Community in 1986. This forced the government to undertake major economic reforms in the early 1980s in order to meet the requirements for entry.

worldwide, and the main European awards, such as Bafta in the UK and Cesar in France. The first edition of the Goya Awards was in 1987.

In order to reverse the distortions introduced by the Miró act, especially those related to the scant average financial success of films produced in Spain, the Royal Decree 1282/1989 of August 28th was issued. It promoted a policy contrary to that of the Miró act by reforming the subsidy policy, introducing fiscal incentives to produce movies, and creating new financial products for funding them. In summary, the main objective was to promote private investment in the industry by fostering independent entrepreneurship and reducing public intervention.

During this period, Spanish cinematography was somehow trying to construct a new identity and wanted to get rid of the past. Therefore, it needed references that mainly came from the most advanced European countries in the sector (France, Italy, and UK). As pointed out by Ardánaz (1998), Spanish cinema left behind the dictatorial regime's protectionism, which extolled the "homo hispanicus", in order to embrace another "democratic cinema", which focused on the ghosts and outcasts of Spanish society. Thus, the peculiar character of Spanish films was replaced by European standardization.

In general, in this second phase, the Spanish film industry underwent major transformations, not only in legislative terms, but also as a result of the entry of Spain into the European Union and the liberalization of the audio-visual industry in general, which led to the creation of new television channels. Moreover, in the 80s new cultural products, as well as new devices such as home cinemas and video games, became available; thus changing leisure time habits by substituting the cinema for more time spent at home. From the production side, however, these changes were also seen as the opening up of a new market. Strikingly, at the end of this phase, Spain won its second Oscar for *Belle Epoque*.

Finally, the third phase started in 1995 with a sharply positive trend. During this period, numerous changes were made to film related legislation, as reflected in several acts and royal decrees. In fact, Act 17/1994 of June 8th was already in force and became the first act (the highest degree in legislation) aimed at fostering the production of movies by introducing better incentives, which contrasted with Act 3/1980 that was just focused on distribution and share. Act 17/1994 followed on the previous legislation, in the sense that it aimed at promoting and protecting the industry. However, this act introduced more flexibility in the regulation of the distribution of films and the share of Spanish films in cinemas and on television. Moreover, it established conditions for determining whether a film was of Spanish origin and adapted the legislation to that of the European Union. Thus, European films were also clearly defined. Another interesting issue under this Act was the coming into force in 1997 of the Royal Decree 1039/1997 of June 27th, which modified the public funding for the production of movies, repealing the Royal Decree 1282/1989.

Act 17/1994 was modified by Act 22/1999 of June 7th, which made it compulsory for TV channels that broadcasted films that were up to seven years old to devote 5 per cent of their revenues to funding the production of Spanish films and co-productions with European partners. However, it was not until Royal Decree 1652/2004 of July 9th that the regulations concerning this compulsory investment were

approved. This process was in line with the main European filmmaking countries where similar legislation was already in force.

In 2001, Act 15/2001 of July 8th, which repealed act 17/1994 and modified Act 22/1999, was passed. This new act aimed at furthering the liberalization of the industry. In fact, the distribution quota was eliminated and the cinema share of Spanish films was made more flexible.

Even though there had been numerous legislative efforts during this phase, as pointed out above, the legislation had not achieved the desired objective of creating a profitable industry. According to López-González (2008), in the mid-2000s the box office revenues of Spanish films accounted for the lowest share of total revenues since 1982. Therefore, in 2007, Act 55/2007 of December 28th was passed in order to reverse the trend and repeal Act 15/2001. One novelty introduced by this act was the recognition of an independent sector within the film industry. Thus, the conditions to be independent producers, distributors and exhibitors were clearly defined, which mainly had to do with not being linked to a dominant participant in the industry, while funding was aimed at promoting the newly recognized independent sector and especially upcoming talents.

In this last phase the internationalization of the Spanish cinema was consolidated, which might have had something to do with the existing public and private policies, as pointed out by Díaz-López (2015). Thus, the growing presence of Spanish cinema at international festivals and markets, as well as the recognition of some Spanish directors and stars have made possible the international projection of the Spanish film industry. Moreover, Spanish cinematography has found its own identity and is currently becoming a mature industry. With respect to this issue, Stone (2015) has pointed out that Spanish cinema has moved away from rigid definitions of its nationality towards investigations into hybrid genres, separatist regional cinema, and transgressive gender roles. In addition, Stone points out that transnationalism has replaced the comfort zone of a national cinema with the continual temporal and spatial redesign of its evolution and current condition.

During this phase the Spanish movie industry won three Oscars: one for best original screenplay in 2003 (*Talk to Her*) and two for best foreign film in 2000 and 2005 (*All About My Mother* and *The Sea Inside*). Moreover, the Oscars awarded to *The Secret in Their Eyes* (2010) and *Pan's Labyrinth* (2007), despite the fact that the Oscar Academy considered them Argentinean and Mexican films respectively,¹³ are also assumed to have contributed to the international projection of Spanish cinematography, as well as the Oscars awarded to Javier Bardem in 2008 and Penélope Cruz in 2009 for their work in foreign films.¹⁴ As pointed out by Simonton (2004), the Oscar awards provide meaningful information about cinematic creativity and achievement. In fact, a

¹³ Indeed, the films' directors, Juan José Campanella (*The Secret in Their Eyes*) and Guillermo del Toro (*Pan's Labyrinth*), did not fulfil the requirements for the films to be recognized as Spanish films since they were Argentinian and Mexican, respectively, and they were neither Spanish nor European residents.

¹⁴ Spanish films nominated for an Oscar have also probably contributed to the internationalization of the industry. However, we have avoided providing a list of Spanish nominations in order not to deviate from our objective.

country that wins an Oscar could be thought to be endowed with some type of movie industry skills.

In some ways the phases identified above have to do with stability. The first phase coincides with the developmental objectives of the Franco regime and the need to improve the economy through developing the country's industry, and the cinematographic industry was in fact declared to be a priority by the regime. The regime had to achieve stability after the very hard experience of the civil war. Thus, improving the economy and the welfare of the country was a major task. However, in the 60s, the economic progress drove the rise of sectors that demanded more freedom and reforms from the state. In fact, phase 2 coincided with a period of instability, characterized by the symptoms of the decline of the regime, which started in 1966–1967 with the reform of the state and which lasted not only until the last stage of the Franco regime, but also during the Spanish transition to democracy and the first two governments of Felipe Gonzalez as a result of the very ambitious program to transform the Spanish economy. The production of movies could not be oblivious to such events. Finally, phase 3 started in a stabilized and modernized country with a European feeling and on a par with its neighbours in many aspects, especially in cultural terms.¹⁵

4. Data Analysis

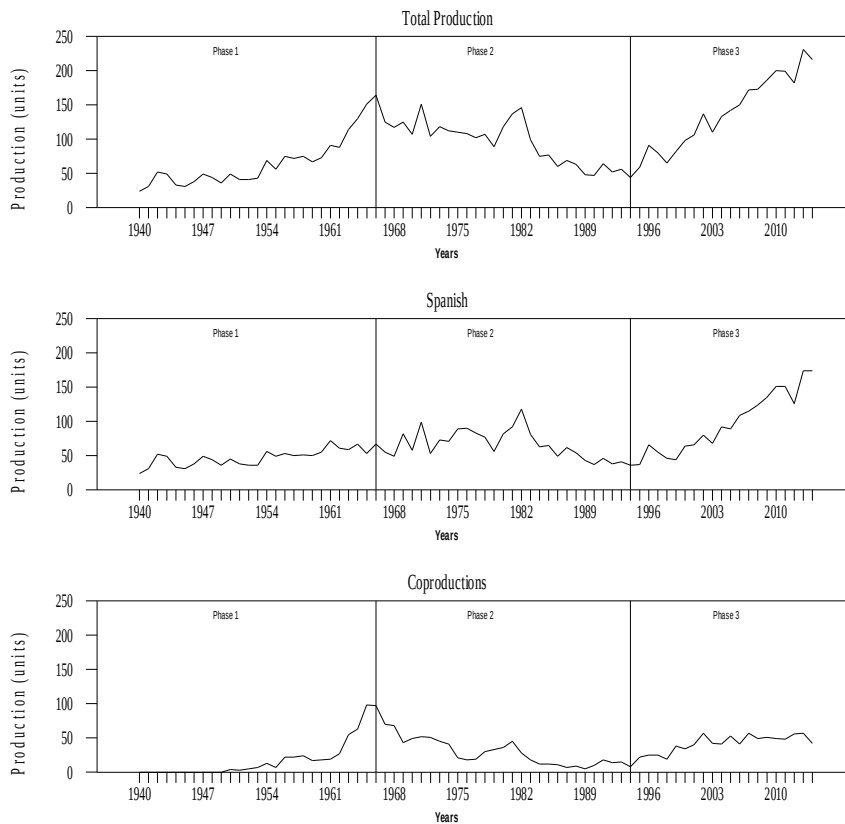
In this section we provide basic statistics on the phases identified above, which are illustrated in Figure 1. Moreover, we show in Figure 2 the phases also for Spanish productions and co-productions.

As can be noticed, the first phase of the yearly total production of movies (illustration 1) seems to be determined mainly by the evolution of co-productions, the second phase by a mixture of both Spanish movies and co-productions, since the former did not decrease as much as the latter, and phase 3 by Spanish productions. Event though, we have avoided introducing political reasons for identifying the phase, we can incidentally say that the trend of the total production of movies in Spain has passed to be determined by Spanish films instead of co-productions, as was the case during most of the period of the Franco regime.

During phase 1, the production of Spanish films almost tripled, growing from 24 in 1940 to 67 in 1966 with an average annual increase of 4 per cent. During the 1940–1949 period there were no co-productions. In 1950, there were 4 co-productions and in 1966 there were 97, which means almost 25 times as many, with an average annual growth rate during the 1950–1966 period of about 22 per cent. Notice, however, in Figure 2 that biases in favour of co-productions started in early 60s and were especially fostered by the ministerial order of August 19 in 1964 on "Rules for the development of Spanish Cinematography". The total production of movies in Spain increased from 24 in 1940 to 164 in 1966, almost seven times, with an annual average growth rate in the 1940–1966 period of 8 per cent.

¹⁵ For more details on the history of cinematography in Spain see Pozo (1984) and Gubern *et al.* (2009).

Figure 2. Evolution of the total yearly production, Spanish production and co-productions in Spain during the 1940–2014 period.



Source: Spanish Ministry of Education, Culture and Sport

During phase 2, as was pointed out above, a mixture of both Spanish movies and co-productions seems have determined the trend in the industry. Thus, the production of Spanish films declined from 67 in 1966 to 36 in 1994 – meaning, 46 per cent fewer Spanish films were produced, indicating a negative average annual growth rate of 3 per cent. Co-productions decreased from 97 at the end of the phase 1 to 8 in 1994, 92 per cent fewer, with a negative average annual growth rate during this phase of 10 per cent. Hence, the total production declined from 164 in 1966 to 44 in 1994, a dramatic decrease of 73 per cent, with a negative average annual growth rate of 6 per cent, during phase 2.

Finally, 1995 was the year movie production took off in Spain. The number of Spanish films produced increased from 36 at the end of the phase 2 to 174 in 2014, co-productions increased from 8 to 42, and the total production went from 44 to 216. In all cases, increasing by roughly a factor of five, with average annual growth rates similar to phase 1 at close to 9 per cent.

Table 2. Basic Statistics across phases

	Total Production	Spanish Films	Co-productions
Phase 1	66.1481*** (7.6820)	47.5925*** (5.1737)	18.5555*** (4.1012)
Phase 2	93.9286*** (7.5436)	65.7857*** (5.0804)	28.1429*** (4.0273)
Phase 3	140.6000*** (8.9257)	98.3000*** (6.0113)	42.3000*** (4.7652)
<i>F</i> statistic	20.0687 (0.0000)	20.5772 (0.0000)	7.1369 (0.0000)

*** Significant at 1% level.

Table 2 shows the means and standard errors (in parentheses) for each phase. As can be seen, all the means are statistically significant at the 1% level. Moreover, the *F* statistic shows that the means across the phases are statistically different, since it tests the hypothesis of equality of means across the phases. It is noticeable that the production of movies, on average, has grown over the course of the phases.

It is also striking, as shown in Table 3, that the shares of productions between Spanish films and co-productions have remained practically invariant across the different phases. As can be noticed, on average Spanish films represent about 70 per cent of the total production while co-productions represent about 30 per cent. Moreover, the average growth rate across the different phases indicates that the following phase implies an increase of about 40–50 per cent in production, on average, compared to the previous one.

Table 3. Share of Spanish Films and Co-productions and growth rates across the different phases

	Total Production	Spanish Films	Co-productions
Phase 1	100%	72%	28%
Phase 2	100%	70%	30%
Phase 3	100%	70%	30%
Phase 2/Phase 1 growth rate	42%	38%	52%
Phase 3/Phase 2 growth rate	50%	49%	50%

Therefore, these basic statistics show that, even though three phases have been identified in the production of movies, according to the trend, the structure of the industry and its long term evolution have not changed.

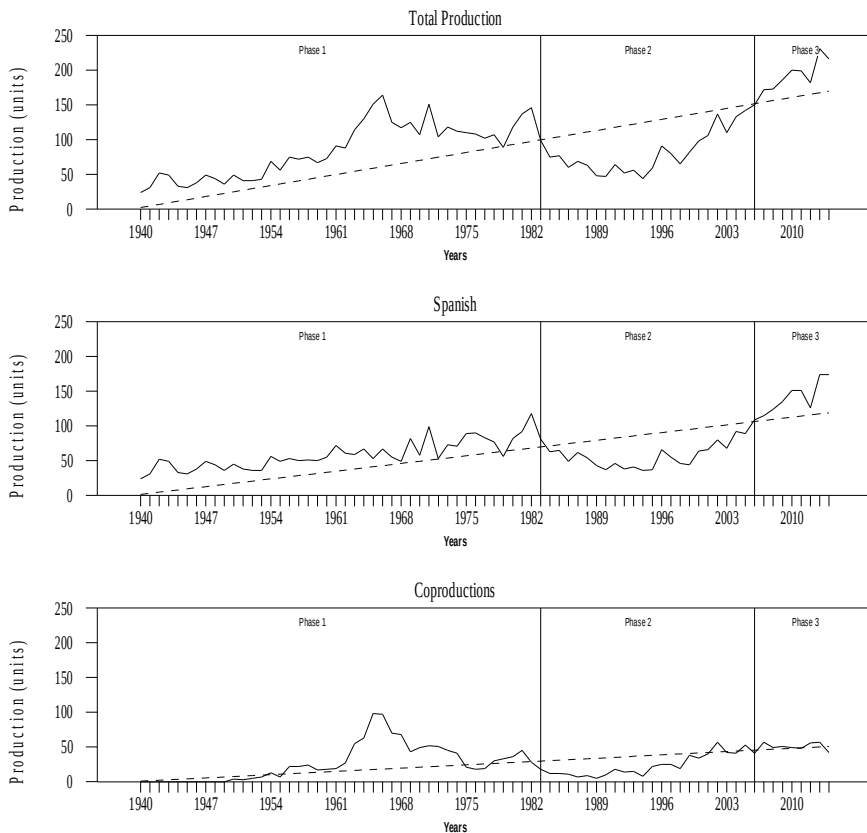
5. Identifying Movie Production Phases in Relation to the Long Term Trend: The Business Cycle

An additional interesting analysis of the movie production time series is provided by looking at the fluctuations in relation to a linear trend. This can be understood as looking at how the production of movies in the short term deviates in relation to the long-term trend, which allows us to analyse the movie production

business cycle. We therefore estimated a linear trend for the total movie production as well as for Spanish film and co-productions.

Figure 3 shows the production of movies over time and the trend. Let us concentrate on the total production.

Figure 3. Trend and deviations in the production of movies in Spain during the 1940–2014 period.



Source: Spanish Ministry of Education, Culture and Sport and our own calculations.

As can be seen, the total movie production was above its long-term trend from the end of the civil war to 1982, which can be interpreted as a period of expansion. The highest deviations were reached during the García Escudero period (1962–1967). As pointed out above, in 1982, Pilar Miro was in charge of the General Directorate for Cinematography and the so-called Miró Act was issued in 1983, driving the production of movies to below its long-term trend in what can be interpreted as a period of recession in the production of movies, a recession which lasted until 2006. In 2007, Act 55/2007 was passed in order to create a profitable industry, as pointed out by López-González (2008). It is striking that, in the mid-2000s, the production of movies had recovered and was approaching its long-term level. However, the box office

revenues of Spanish films accounted for the lowest share of total revenues since 1982. Thus, from 2007 onward, when Act 55/2007 came into force, the production of movies again rose to above its long-term trend, and currently the movie industry on average enjoys a much better situation in terms of profitability. Therefore, we can say that the production of movies is in an expansion period. It can be deduced that precisely during the period when production was below its long-term trend (phase 2), the industry was less profitable. Incidentally, it seems to be that the production of movies has not been much affected by the recent general economic crisis of the Spanish economy.

Taking a look at the cases of Spanish films and co-productions, the second and third (from the top) illustrations in Figure 3, it can be noticed that in phase 1, the largest deviations in the total production from its long-term trend were mainly caused by co-productions in the 60s as a consequence of the García Escudero policy, as pointed out above.

Notice that before this policy, in the first two decades after the civil war, co-productions were at level one would expect given the long-term trend, a level at which converged again during the 1975–1982 period. On the contrary, even though Spanish film production during phase 1 was above its long-term trend, deviations were lower, which suggest that this series was closer to its long-term trend. However, due to the Miró Act, most of the deviations in the total production of movies from the long-term trend level were caused by production of Spanish films. In fact, co-productions approached the long-term trend level at the end of the 90s and have continued to follow it. Therefore, in the third phase, the deviations in the total production of movies were caused by the production of Spanish films. However, it could be approaching its long-term trend level.

According to the analysis above, we have identified two major events in different periods that have caused great deviations in the production of movies in relation to the long term trend but with opposite signs. There were positive deviations during the García Escudero period and negative deviations during the Miró Act. In order to show stronger evidence of these events with respect to the deviations in the production of movies in relation to the long-term trend, we ran a regression as follows:

$$Y_t - \text{Trend} = \alpha + \beta_1 \times \text{Dummy_GE} + \beta_2 \times \text{Dummy_MA} + \varepsilon_t$$

Where $Y_t - \text{Trend}$ is the difference between the actual number of movies produced and the estimated trend, that is, the fluctuations shown in Figure 3. α is a constant, Dummy_GE is a dummy variable that takes the value of 1 during the 1962–1967 period and zero otherwise, and Dummy_MA is dummy variable that takes the value of 1 during the 1984–1989 period when the Miró Act was in force,¹⁶ and zero otherwise. β_1 and β_2 are the effects of both reforms on the deviations and ε_t is a disturbance. Table 4 shows the results of the estimation.

¹⁶ As pointed out above, the Miró Act was issued at the end of December 1983, and was in force until August 1989. Therefore, the 1984–1989 period is considered.

Table 4. Basic Statistics across phases

	Total Production	Spanish Films	Co-productions
Constant	9.5465** (4.5249)	8.9929** (3.5295)	0.5536 (1.8378)
<i>Dummy_GE</i>	61.3691*** (15.3447)	10.8655 (11.9691)	50.5036*** (6.2323)
<i>Dummy_MA</i>	-51.7887*** (15.3447)	-28.3873** (11.9691)	-23.4014*** (6.2323)
$H_1: \beta_1 = \beta_2 $	0.17931 (0.6732)	0.9858 (0.3241)	73.5056 (0.0000)

***, ** Significant at 1% and 5 % levels respectively.

Notice that the parameters estimated are highly significant in all cases except for the constant for co-productions and the García Escudero period with respect to the production of Spanish films, which suggests that the policy carried out in that period had no effect on the deviation of production of Spanish films in relation to the long-term trend. However, it had positive effects on coproduction deviations, with similar effects on the deviations of the aggregate production of films. As expected, the Miro Act had very negative effects on such deviations, both on Spanish films and co-productions. Therefore, during the García Escudero period, co-productions deviated on average by about 50 more films per year, while Spanish productions deviated by 11, for a total of 61 more films per year, on average, in relation to the trend during the 1962–1967 period. During the Miro Act period, the negative deviations were 28 and 23 for Spanish films and co-productions, respectively, for a total of 51 fewer films per year in relation to the trend during the 1984–1989 period.

Table 4 also shows a test for the null hypothesis of equal effects in absolute values of the García Escudero and Miro Act periods. That is, $H_1: |\beta_1|=|\beta_2|$. The results show that the hypothesis cannot be rejected for the total production and Spanish production. However, it is rejected for co-productions. These results can be interpreted as though the Miro Act had exactly the opposite effect of the García Escudero policy on the deviations of total production and Spanish production in relation to their long-term trends. However, for co-productions we cannot draw this conclusion.

6. Conclusions

This article used time series data for the 1940–2014 period to show how Spanish movie production has evolved after the civil war. We have carried out an analysis that is different to the traditional approaches, which usually split the production of movies over time into political periods associated with dictatorship and democracy or other ad hoc criteria. Therefore, we propose looking at the evolution of the production of movies over time in order to identify phases.

On the one hand, three phases can be identified simply by looking at the evolution of the production of movies over time. Historical events associated with each phase are provided in order to give insights into the causes of this evolution. The key events that we relate to the identifying of the phases are the start of the decline of the García Escudero period (1966) and the year 1994 when Act 17/1994 was issued and

Belle Epoque won the Oscar for best foreign film. The first and third phases show positive trends while the second phase shows a negative one. Moreover, we notice that the structure of the production of movies, with respect to Spanish and co-produced films, has not changed over time.

On the other hand, we also look at the movie production business cycle. Therefore, we estimate a linear trend with a positive slope for the evolution of the production of movies over time, and we identify three periods: two expansion periods (1940–1982 and 2007 onward) and a recession period (1983–2007). Moreover, estimations suggest that García Escudero's policy (1962–1967) and the so-called Miro Act (1983–1989) caused equal deviations from the long term-trend of the movie production but in opposite directions. The former had a positive effect while the latter had a negative one. Such events, along with Act 55/2007, seem to have had much to do with the movie production business cycle.

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