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Huge in France: Explaining French Underperformance in the International Box Office

Senior Project The Division of Social Studies of Bard College

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Annandale-on-Hudson, New York May 1, 2019



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Abstract

In the face of near complete American dominance of the global film industry, the

French have adopted a number of policies to protect their domestic industry. This project

provides a history of public intervention in the French film industry, a theoretical

framework to explain American dominance and the possibility of French competition, and

finally an empirical evaluation of the French policy of public intervention. It finds significant

evidence that public spending has a depressing effect on the size of movies on the upper end

of the budget spectrum, but perversely that increasing the proportion of public spending on

film increases their performance in the box office.

JEL classifications: L82, M38, N74

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Chapter 1

Introduction

The New World Order, or a version of it at least, was created in Montevideo in 1994. Participant countries, representing every major economy in the world, updated the 1947 GATT (General Agreement on Trade and Tariffs) to serve as the constitution for an ambitious project, the WTO (World Trade Organization) which would regulate, enforce and act as an arbiter for trade between nations. Written during a time of (neo)-liberalization, GATT II sought to reduce barriers to trade. It introduced a number of measures to bring down both tariff and non tariff barriers, from standardizing the Most Favored Nation rule to stamp out country of origin trade discrimination to the policy of reciprocity where import tariffs are met by reciprocal tariffs on exports. The agreement expanded these protections to the rapidly globalizing economy, creating the General Agreement on Trade in Services (GATS) to regulate international trade in services. And, unwritten but carefully included within the GATS lies the focus of this project. *L'exception culturelle*.

The French delegation, joined by the Canadian delegation, held up the final negotiations of the Uruguay round on the host of trade agreements for nearly 18 months, fighting for the cultural exception. They demanded that they be allowed to protect their national culture and the products of that national culture, in a manner that contradicted the framework of the agreement. Incredibly, they won and audiovisual products remain the only

¹ "What Do We Generally Understand by "Cultural Exception"?" UNESCO Culture. October 21, 2016. Accessed April 30, 2019. https://wayback.archive-

it.org/10611/20161021221244/http://portal.unesco.org/culture/en/ev.php-URL_ID=18683&URL_DO=DO_TOPIC&URL_SECTION=201.html.

category of good exempted from the agreements which form the bedrock of international trade to the present day.

This called into mind a set of questions. Why did France, which boasts the oldest film industry in the world and a long tradition of film, need to protect its film so badly that it was willing to walk away from the table in Montevideo?

Cursory investigation of the international film industry brings the fact of American dominance into particularly sharp relief. Specific measures of the lopsided international markets are discussed in detail in Chapter 3, so it will suffice to say for now that no national film industry holds a candle to the American Hollywood system. While the United States' films are certainly aided by trade advantages stemming from its position as a global superpower, its large home market, and cultural hegemony resulting from political hegemony², it lacks the large system of public aid which characterize the French film industry.

This brings me to the central question of this project. Is the French system a particularly effective one for protecting and promoting its national film industry?

This project is divided into five chapters, including this one. Chapter 2 covers the industrial history of the French film industry from the end of the Second World War to the present day. Chapter 3 adapts trade theory to develop a theoretical approach for analyzing the penetration of the international market by national film industries and makes the argument that France could, under different industrial conditions, compete with the American film industry. Chapter 4 provides an empirical analysis of the effects that public spending has on the outcomes of French film. Finally, Chapter 5 summarizes and concludes this project's arguments.

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² Crane, Diana. "Cultural globalization and the dominance of the American film industry: cultural policies, national film industries, and transnational film." *International journal of cultural policy* 20, no. 4 (2014): 365-382.

Briefly, the following analysis posits that French industrial policy encourages unmarketable characteristics in their films such as small budgets, young filmmakers, culturally specific products and, more generally "art films". This spending has a perverse effect of depressing the international performance and production even created without this aid. With less and different government incentives, I believe that the French film industry could have rivaled the American film industry in the international market. However, the state of the French film industry represents a view of film as a cultural good rather than produced for profit.

Chapter 2

An Economic History

Since the end of the Second World War, the French government has concerned itself with protecting the nation's cultural products in general and its films in specific from the rigors of the unrestricted market. The forms of public protection for film can roughly be sorted into two groups. First, there is inward facing policy where the French domestic market is manipulated by subsidies, grants, taxes, forced spending and a host of regulations to being more hospitable to the cinema industry. Second, outward facing policies, which take the form of special consideration in trade deals with the intent of either encouraging the exportation of French films or protecting them from competition in the domestic market through tariffs and quotas. Together these policies are referred to as the *l'exception culturelle* or the cultural exception. While this term wouldn't be used until the Uruguay round of GATT negotiations in 1994 and then referred to a specific trade issue, it has come to denote the French system of filmmaking and film financing which relies heavily on public intervention. This chapter will discuss the post-war French film industry. Section 2.1 details the progression of inward facing policies. Section 2.2 discusses the industrial landscape of French film. Section 2.3 tells the history of international trade agreements as they concern to French film. 2.4 briefly summarizes the American domination of the international film industry, concludes and lays the framework for the theoretical discussion in the following chapter.

2.1 Industrial policy

In 1948, following the fall of the Vichy Regime and the creation of the fourth republic, a new government agency, the *Centre National du Cinema* (CNC) flexed its muscle. It began its

reign by enacting the *Taxe Spéciale Additionnelle* (TSA).³ This tax was a form of industry-wide forced savings which exists to the present day. A flat tax of 11% was added on each cinema ticket sold, and the proceeds were put in a CNC run fund from which it would fund a new system of aid. This fund was reinvested back into the French film industry, paying for the restoration and construction of new screens, the education of new filmmakers, and a system of automatic and selective aid, film festivals and more. Here begins the reign of the CNC, the most singularly dominant force in the French film industry.

Before the creation of the CNC, the French film industry had looked like the United States or any other capitalist nation's film industry, dominated by a few large, vertically integrated studios and checked by powerful unions without much government aid or intervention. The CNC is a government-run industry group which manages the relations between the film industry and the state, administers state policy, and regulates the industry. As the role of the French state in the arts has grown, so too has the influence of the CNC. The establishment of the CNC, and the forced savings of the TSA would usher in the following 70 years of French film history, one which is characterized by government intervention.

It will be useful to look at the French approach to vertical monopolies of producers and exhibitors as it provides a concrete example of the typical policies which the French government and the CNC used to manage the film industry. Upon its inception, the CNC established an arbitration framework to help resolve disputes between producers and exhibitors. Until today, the majority of French cinemas are owned by large studios which also produce films, a stark contrast to the United States. Until 1948, American studios had owned movie theaters like the French, and had given preferential treatment to their films, preventing some their competitor's films from being shown at all. In the landmark antitrust case *United States v. Paramount Pictures, Inc* this was deemed unfair and anticompetitive. The

³ "Historique Du CNC." Soutien à La Création Cinéma, Séries, TV, Jeu Vidéo | CNC. Accessed November 10, 2018. https://www.cnc.fr/a-propos-du-cnc/histoire.

US federal government forced exhibitors (theaters) and producers (the studios) to separate. This case outlawed vertical monopolies, such as the studio system, in the United States and remains an important piece of anti-monopoly legislation. But France took a different approach to the problem of large studios owning theaters. The French government mandated equality of treatment and the CNC established an arbitration council which would ensure that films got fair treatment at all theaters. ⁴ This style of direct intervention is the sort of industrial policy that would become typical of the CNC.

There were many other types of intervention worth briefly noting by name in the first few years of the CNC. The early post-war period also saw the creation of the system of automatic aid, which plays a major role funding smaller French productions today and at least a minor role in funding every production which is legally considered French.

Automatic aid is granted from a film fund funded by the TSA. Usually granted after a film's completion, the award is based on both the performance of the film and the national composition of the production crew on that film. The CNC grants an amount of aid through a prescribed formula and the funds can be used either to service debts from financing the film or to fund subsequent projects. The CNC also began to help promote French film internationally by funding exhibitions like the Cannes film festival and promoted it internally by providing film curriculum to primary and secondary school students.

Outside of the purview of the CNC, France innovated ways of giving special aid to their film industry. In 1936, the French national government created the *intermittence du spectacle*. The *intermittance* is an unemployment insurance system for highly skilled workers in the arts, more than half of whom work in film. Typically, employment in film production takes the form of short contracts lasting the duration of a single project with long periods of unemployment between. The *intermittence* allows some respite from the precariousness of

⁴ Scott, Allen. (2000). French Cinema: Economy, Policy and Place in the Making of a Cultural-Products Industry. Theory Culture & Society - THEOR CULT SOC. 17. 1-38. 10.1177/02632760022050988.

⁵ (for a more detailed discussion of automatic aid, see Buchsbaum, 233).

this position. Moreover, it keeps the supply of highly specialized film labor high by allowing a great deal of slack to exist in the labor market. The scope of the *intermittence* increased over the years and by 2004, more than 116,000 film workers relied on the *intermittence du spectacle*. The high supply of labor has resulted in relatively low labor costs (low when compared to the film production labor markets of other European countries; the American film production labor market has significantly lower labor costs than any European market). This is a boon to the French film industry, easing labor relations, maintaining a large labor market and one with enough slack to depress upward pressure on wages.

While all this exciting industrial transformation was going on, French film still tended to resemble poor copies of American film. It had yet to differentiate itself into a unique national product which viewers would recognize in the present day. In 1954, writing in the Cahiers du Cinema, the director François Truffaut identified a certain tendency in publically-aided French cinema which he spitefully named the 'tradition of quality.' He gave this ironic title to the highest profile of the publically funded French films of the era, the "ten or twelve films that merit the attention of critics and cinéphiles ... [and] force by their ambitiousness, the admiration of the foreign press, defend the French flag twice a year at Cannes and Venice" But to Truffaut these films did not represent what cinema should be in France. The only art in the 'tradition of quality' was the "art of 'cheating the producer' ... as well as that of cheating the 'great public'." The directors and producers of these films extracted value (more social value than monetary value) from the state by exploiting the public funds which they were appropriated and producing movies which Truffaut would go on to note poorly aped commercial American films and failed to satisfy an artistic

⁶ Menger, Pierre-Michel. "Contingent High-Skilled Work and Flexible Labor Markets. Creative Workers and Independent Contractors Cycling Between Employment and Unemployment." *Swiss Journal of Sociology* 43, no. 2 (2017): 256.

⁷ Truffaut, François 'Un certaine Tendance du Cinema Français', *Cahiers 31*, January 1954, Translated as 'A Certain Tendency of the French Cinema' in Nichols, *Movies and Methods*, pp. 224-37 ⁸ ibid. 7

impetrative. French cinema had become complacent, the public support systems favored established directors and suppressed growth, both commercial and artistic.

The transformation of the French film industry into one with a unique style would take place over the following decade and a half under the watchful eye of Malraux and his Ministry of Culture. When the French film world was revolutionized with the introduction of the Ministry of Culture, and Truffaut and his colleagues in the French new wave became prominent leaders in French cinema and their philosophy of rejecting easily palatable American-style films in favor of artistically challenging ones would become a defining feature of French film. This philosophy became a *de facto* guiding principal of the Ministry of Culture which oversees the CNC, which began to focus on programs that aided smaller, independent productions

Film moved to the fore of French politics in 1959 following the foundation of the fifth republic. President Charles de Gaulle created the Ministry of Culture (at times officially named the Ministry of Cultural Affairs or the Ministry of Culture and Communication) and installed André Malraux, an author, ex-leftist, and personal friend of the President. In the decree that founded the Ministry of Culture, Malraux wrote:

Le ministère chargé des affaires culturelles a pour mission de rendre accessibles les œuvres capitales de l'humanité, et d'abord de la france, au plus grand nombre possible de français; d'assurer la plus vasie audiance à notre patrimoine culturel, et de favoriser la création des œuvres de l'art et de l'esprit que l'enrichissent.

"The mission of the Ministry of Cultural Affairs is to make accessible the artistic wealth of humanity [lit. "capital works of humanity], first to all of France, to the greatest number of French people as possible; and to ensure the widest possible

audience for our cultural heritage, and to favor the creation of works of art and the spirit that enrich it."

From its inception, the Ministry of Culture's mission doubly to protect French cultural products domestically and to maintain France's standing as an international cultural leader. Nowhere in the founding report does Malraux mention making French cultural products commercially competitive.

Malraux's most important addition to the increasingly subsidized system of French film finance was the *avance sur recettes* (advance on receipts, sometimes translated as advance on earnings), a sort of golden goose of film finance which continues to be a defining feature of the French film funding system today. The *avance* evolved of of the *primes de qualité* which had been created by the CNC in 1953. The *primes* were a no-interest loan awarded to films based on their subjectively determined quality. This award was quickly transformed into the *avance sur recettes* in 1959. The *avance* was an expansion of the *primes* but with a major difference. The *avance sur recettes* is secured against future receipts, rather than a loan against a production company. This means that if a film failed to recoup the amount of the loan in ticket sales, the producers would have no further obligation to pay back the advance. This assistance is primarily aimed to help fund small and midsized films where the typical loan of €700,000 composes a significant portion of the budget. Typically, the combination of automatic aid and the *avance sur recettes* is meant to contribute the majority of a film's budget.

While intended as a boost for the artisan character of the stagnant French film industry of the mid fifties, the *avance sur recettes* may have had an unintended effect of disincentivizing investment in otherwise commercially viable films. The most talented filmmakers produced artistically ambitious bombs, critical darlings that lost money every screen they played on. Famously, Truffaut and Godard's first films, produced before the

⁹Décret no 59-889 du 24 juillet 1959

introduction of the avance sur recettes, were financial successes and their subsequent films, produced with this aid, were financial failures. Truffaut would not make a profitable film after 1959's Le Quatre Cinque Coups until 1966's Fahrenheit 451, which was financed by American producers and was shot in London with an English script. While this is a purely anecdotal correlation, it illustrates a frustrating aspect of the French film production system, the seeming inability to make artistically daring films profitable. Moreover, it suggests that producing films an environment where profit is irrelevant tends to produce unprofitable films. The fact is that in practice, films made with the avance sur recettes rarely pay back the loan. Today, the figure stands that only 5.2% of films produced with the avance pay back the total of the loan. 10 But even when considering the distortionary effects that the avance might have on the marketability of the films it helps finance, we must recall that its aim is not to produce the most commercially viable films. The award has a history of helping culturally important films and filmmakers. The films that benefited from Malraux's Ministry of Culture are by some of the best known figures in the French New Wave, people like Jean-Luc Godard, François Truffaut, and Agnès Tardi as well as more modern directors like Claire Denis, Luc Besson, and Noemie Lvovsky. But the system of selective aid could be prescriptive rather than descriptive, aiding preexisting talent what would have found artistic success without the help. This debate still rages fiercely in French public life.

2.2 State of the industry

Now that we have a reasonable understanding of the interventions of the CNC and the Ministry of Culture, it will be helpful to step back and look at the fate of French film from the post-war period through the present day, looking particularly at attendance and the

¹⁰ "Cinéma : La Cour Des Comptes Pointe Du Doigt Les Faiblesses Du Soutien Public." Lesechos.fr. December 08, 2013. Accessed November 10, 2018.

 $https://www.lesechos.fr/08/12/2013/lesechos.fr/0203176208504_cinema---la-cour-des-comptes-pointe-du-doigt-les-faiblesses-du-soutien-public.htm.$

effect of television and videotape. We will conclude this section by discussing the creation and effect of Canal+ which will bring us to a fairly complete understanding of the industry as it functions today.

Following the end of the Second World War, the world film economy was fairly local and growing quickly. In 1950, the French film industry was at a high. French audiences bought nearly 400 million tickets so each French citizen saw an average of 10 films a year and market share well over 60%. By the time that the market bottomed out in 1992, more American films played in French theaters than French films¹¹ and attendance was a dismal 110 million tickets (Buchsbaum 40). French cinema attendance was in freefall from the 1960s onwards. Attendance fell by 60 percent between 1957 and 1976. Interestingly, total receipts remained at close to the same level as ticket prices more than tripled over the same period.¹² One might assume that the shrinking audience was caused by increasing prices, but cinema attendance worldwide experienced analogous shrinkage world wide with little increase of the average ticket price. Over the same period cinema attendance in Germany fell by more than 80 percent and in the UK attendance fell by an astounding 90 percent.¹³ The culprit was television. The rise of live television and consumer videotape threatened cinema around the world. Consumers were choosing the convenience and relative cheapness of free and publically owned television. France enacted policies to protect cinema against the onslaught from television. Television channels were not allowed to broadcast films on Wednesdays or Saturdays and were forced to wait three years after a film premiered in theaters before running it on television. In 1986 a new tax of 3% was placed on television, administered by the Compte de Soutien aux Industries de Programme (COSIP), under the purview of the CNC. 14 These funds were redistributed to filmmakers alongside, but independent of,

 $^{^{\}rm 11}$ In fact, American films took up 58% of the French box office in 1992.

¹² Farchy, Joëlle. Le cinéma déchaîné: Mutation d'une industrie. FeniXX, 1992., found on page 267 of the buchsbaum

¹³ Ibid. 12

¹⁴ https://www.cnc.fr/professionnels/faq#Cosip

the other forms of automatic and selective aid that were already extant in France at the time. The market bottomed out in 1992, alongside markets worldwide, and since then has seen steady, conservative growth.

From the time Malraux's tenure as the Minister of Culture ended in 1969 until a fresh upstart named Jack Lang picked up the mantle in 1982, the French film industry was in a deep decline. Cinema worldwide was losing ground to television, but European film production in general and French film productions in specific were being suffocated out of the world film market by the sheer dominance of American, which were taking an increasing share of European audiences. ¹⁵ At the beginning of his tenure, Lang commissioned one of his subordinates, M. Bredin for whom the famous report is named, to compose a report evaluating the state of the French film industry. The report was mostly grim, identifying the decline in cinema attendance and the increasing dominance of American films. It kicked off Lang's term as Minister of Culture, which saw radical changes to protect the French film industry from the dual threats posed by television and international competition.

Television continued to remake the landscape of the French film industry. Even after the sets had reached a saturation point, the changes wrought by the privatization of television channels would go on to define the financial landscape of the industry through the present day. Established as part of a spate of privatizations of President François Mitterrand in 1983-84, Canal+ was the first ever private television network in France. It was a subscription service modeled after HBO. It received a mandate from the government to show films only one year after they were playing in theaters, a significant advantage over public television networks which had to wait a full three years. However, this advantage came at a cost. Under the leadership of Minster of Culture Jack Lang, a series of fairly restrictive regulations were placed upon Canal+. The network had to play a minimum of

¹⁵Variety Staff. "Earth To H'WOOD: You Win." Variety. February 13, 1995. Accessed December 10, 2018. https://variety.com/1995/more/news/earth-to-h-wood-you-win-99123775/.

60% films of European origin and 50% films of French origin. Canal+ would have to wait one year after a film premiered in theaters, a measure put in place to protect the territory of cinemas as the location for first-run films. But most relevant of all, Canal+ would have to invest 9% of its annual income directly into the French film industry and a minimum of 20% of its income in cinema at large.

By 1995, Canal+ was wildly successful. In ten years they had gone from zero to 4 million paying subscribers and had a yearly revenue of more than 7.2 billion francs. Their investments in French films alone was more than 500 million Francs (200 million dollars, adjusted for inflation) and the company had some role in financing more than 60% of the 200-odd films that France produced each year (Buchsbaum, 101). While a portion of this money was spent simply on acquiring broadcast rights from films that the network was otherwise uninvolved in, Canal+ took an active, increasingly dominant role in French film. One of the producers of the Oscar-winning film *The Artist*, Thomas Langmann, would claim in a 2013 interview that this arrangement had lead to the diversification of French producers.

In the 1980s, four or five French groups shared the film cake: Gaumont, UGC, AMLF (aka Pathé) and MK2. Progressively, after the birth of StudioCanal, many independent producers started to finance their films outside these big structures ... This phenomenon did not exist fifteen years ago [before 2013]. Today, about fifteen independent producers compete with each other. ¹⁶

Canal+ lost its monopoly position in 1994, and in the late nineties was embroiled in the center of an ill-fated acquisition by Canal+'s parent company Vivendi of Seagram Universal (a beverage conglomerate that happened to control Universal Studios) to form what would briefly be the second largest media conglomerate in the world. Mismanagement lead to

Delcroix, Olivier. "Langmann: «Pas D'argent Public Dans Les Films Français»." La Figaro. January 04, 2013. Accessed December 10, 2018. http://www.lefigaro.fr/cinema/2013/01/04/03002-20130104ARTFIG00438-langmann-pas-d-argent-public-dans-les-films-francais.php. Translation my own.

rising debts and public hostility that manifested itself as a series of government investigations into the business. By 2002, new subscriptions to Canal+ leveled off and the company was saddled with debts from the failed Vivendi venture and forced to compete with competitors entering the private television sector in France. Profits and investments shrank and Vivendi and Seagram Universal split. But despite it all, Canal+ remained the largest single source of finance for French films and the mandatory investment into the French film industry has protected the industry, somewhat, from the ravages of television and international competition which have destroyed the national film industries of Spain and Italy.

So this is the state of the French film industry in the present day. A combination of public aid and industrial policy form a significant portion of the financing of French films. Since 1994, more than 60% of the total annual budgets of French films has come either directly from the government or at its behest. The number of French films has increased by 82% over this period and attendance has increased by 54% (Buchsbaum 210). The market share of American films versus national cinema has been dicier. French policy has been able to restrain the market for US films to less than 50% (in 2012 the US market share was 46%). The French share is lower, closer to 40% which is coincidentally the proportion of showings mandated by the quota system discussed in the following section. While this ratio is stronger than any of the other producers in the EU5, it still represents an industry fighting for its life against the domination of Hollywood. The following section details some of these trade battles.

2.3 Trade policy

France has taken a unique approach to protecting its film industry, prioritizing protection of a unique cultural product rather than focusing on developing a commercially viable industry. This has extended itself into the policy and politics which the country approaches trade policy. In addition to its history of domestic support mechanisms, France

has consistently fought for the ability to protect its film industry from international competition. The modern incarnation of the attitude of cultural exceptionalism (though it was not yet called the cultural exception) came around with the birth of globalization in the aftermath of the Second World War. In 1947, twenty-three countries came together to draft the General Agreement on Trade and Tariffs, also known as the GATT. Essentially, the GATT was a massive, multilateral trade agreement where countries agreed to allow each other access to their markets and to reduce tariffs and anti-competitive practices. On paper, this would create a level playing field where all countries could enjoy the advantages of trade and comparative advantage. In practice, however, it favored the massive and intact economy of the post-war United States. Of course, the general reduction of tariffs was beneficial to all parties. Like removing any other tax, decreasing the price of a good increases consumption and consumer surplus, a boon to the consumers of every country. In addition, free trade allows countries to better benefit from comparative advantage. As internationally produced goods prices drop to close to the price of domestically produced ones, countries are free to specialize in producing goods which they can produce at the greatest rate of profit. Later in chapter 3 we will examine the economy of scale in film that, in part, allows the United States with its massive economy to dominate the world film market. The French delegation were aware of this threat against them even during the first round of GATT negotiations in 1947. Even in the first version of the agreement, France insisted on protecting its audiovisual culture. Article IV in the 1947 treaty allows minimum screen quotas for domestic films in cinemas. 17 The quota 18 is one of the defining and enduring features of French cultural protectionism and continues to this day. Only military goods and "goods deemed vital to national security" (Buchsbaum 77) received a similar exception.

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¹⁷ It is important to note that this first official protection only extended to films. Television, barely a glimmer in the eye of Ted Turner in 1947, was not included. It would become a major battleground in the coming years.

¹⁸ Today the quota stands that 40% of screenings must be of French films and 60% must be European. A similar quota system has also been implemented in television.

The agreement underwent massive revisions from its inception onwards. Every ten years, the signatory nations (which began with 23 highly industrialized countries in 1947 and ballooned to 128 in 1994¹⁹) met to renegotiate and expand the GATT. These successive rounds of negotiation concluded with the Uruguay round which lasted from 1987 to 1994. The Uruguay round ended with the establishment of the World Trade Organization (WTO) and the integration of the GATT into its charter. During this transition, the French representatives, along with the representatives of many other nations, notably the Canadians and the European Economic Commission (EEC), fought hard to enshrine the right to protect their native culture industries in the founding charter of the WTO which was being adapted from the GATT. These efforts met harsh resistance from the United States' representatives. It wasn't until European states consolidated their position when they formed the EU in 1992 that the negotiations began to go France's way. After a great deal of contentious debate and personal appeals from august figures like Martin Scorse and Jack Valenti, the signatories agreed to a cultural exception. The issue of audiovisual policy was specifically left off of the series of treaties forming the charter of the WTO. Tariffs and unfair trade practices on cultural products were neither allowed nor disallowed and were not under the jurisdictional purview of the WTO, which of course simply means that they are allowed. Effectively, this meant that France had won the right to continue its quota system and maintained the right to administer otherwise unfair subsidies to French cultural industries and the French film industry specifically.

If we consider the acronymic trade agreements and organizations of the GATT, the GATS, and the WTO as a series of attacks on the policy of French cultural exceptionism, then it makes sense that one final acronymic organization, UNESCO, might be its protector. In the late 1990s, the United Nations Educational, Scientific, and Cultural Organization

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 $^{^{\}rm 19}$ World Trade Organization. "FIFTIETH ANNIVERSARY OF THE MULTILATERAL TRADING SYSTEM." News release, 1998. Wto.org.

https://www.wto.org/english/thewto_e/minist_e/min96_e/chrono.htm

became a prominent defender of what it termed 'cultural diversity'. This process began with the passage of the "Universal Declaration on Cultural Diversity" shortly after 9/11. The treatise amounted to an admission that globalization threatened cultural diversity (a somewhat loose term) and that sovereign nations had a right to defend their native cultures. This particular right is set down in Article 9 of the document

"While ensuring the free circulation of ideas and works, cultural policies must create conditions conducive to the production and dissemination of diversified cultural goods and services through cultural industries that have the means to assert themselves at the local and global level. It is for each State, with due regard to its international obligations, to define its cultural policy and to implement it through the means it considers fit, whether by operational support or appropriate regulations."²⁰

The declaration was passed nearly unanimously. Four countries abstained and only two, the United States and Israel, voted against. Like most UN documents, the Universal Declaration on Cultural Diversity was more symbolic than politically meaningful or enforceable, but it represented an international consensus that most countries outside of the United States believed that states had a right to protect their culture industries.

This is the present state of the trade policy around French film. It has remained more or less unchanged since the first draft of the GATT due to the hard work of French trade negotiators over generations. France also been able to maintain its quota system contrary to a general trend in global trade and a system of national aid in contravention to EU policy. While trade policy has certainly had an important role in the shape of the French film industry, its remarkable fact is how unchanging it has been in the face of global trade rather than the effect of specific changes. In this vein, the rest of this project will focus on the effect that inward facing industrial policy has on the films.

²⁰ United Nations Educational, Scientific and Cultural Organization, *UNESCO Universal Declaration on Cultural Diversity*, (2 November 2001), available from http://portal.unesco.org/en/ev.php-URL_ID=13179&URL_DO=DO_TOPIC&URL_SECTION=201.html.

2.4 Conclusion

To round off a description of the French film industry, it is necessary to understand the threat it is under from the United States. It is difficult to overstate the dominance that films from the United States enjoy in the world marketplace. In 2014, American productions and coproductions amounted to more than 80% of the world theatrical film market, excluding India and China. Of the 'superproducing countries', those who produce more than 250 feature films annually, only America, China and India have markets where viewership of domestically produced movies is greater than internationally produced films (Buchsbaum, 6). In Europe alone, American films enjoy a 63% market share. ²¹ If a person stood outside of a random cinema in a random country anywhere in the world and asked exiting moviegoers what film they had just seen, most of them would tell you that they've just seen an American film.

The modern iteration of the economy of cinema is dominated by blockbusters and tentpoles. Blockbusters are hugely expensive films that return an even huger profit. This systemic change, often thought to have begun with Steven Spielberg's Jaws²² in 1975, lead to a massive increase of the price of a movie. Instead of American studios producing many movies cheaply and then marketing those movies roughly evenly, everything that could be done was done to attract an audience to one of the few blockbuster releases of each year. The salaries of the most famous actors, actresses and directors ballooned and the budget of special effects saw massive increases as well. Between 1980 and 1991, the average budget of a feature-length Hollywood motion picture increased 20 fold.²³ Hollywood also saw

²¹ Richeri, Giuseppe. "Global film market, regional problems." *Global Media and China* 1, no. 4 (2016): 312-330.

²² Neale, Steve. "Hollywood Blockbusters: Historical Dimensions." Ed. Julien Stinger. *Hollywood Blockbusters*. London: Routeledge, 2003. pp. 48–50. Print.

²³ Marvasti, Akbar. "Motion pictures industry: Economies of scale and trade." *International Journal of the Economics of Business*7, no. 1 (2000): 103.

significant increases in international investment over the same period. ²⁴ These changes to the US film industry set its films in a class of their own. As the industry has continued to evolve, so too has the marketing strategy surrounding blockbusters. Tentpole films, mega-budget (more than \$100 million production budget) projects from franchises with known market power form an increasing proportion of major studios' budgets. The scale and quantity of large budget pictures, the type that draw the largest audiences, became essentially an exclusively American territory. With its massive internal market, and access to capital, and a large, highly skilled labor pool, the US is uniquely situated to continue, in a globally free market, to dominate the world of film. That fact is the justification for many of France's anti-competitive policies.

The idea of cultural imperialism as it concerns film is best stated by Professor Jean-Claude Batz; "cinema follows American diplomacy, as once the missionaries followed the conquerors." France has long held a justifiable anxiety that as it allows foreign films to compete with domestically produced films, it will overwhelm them and snuff out a unique French cultural identity. While it certainly corresponds with the realities of the market, the fear surrounding cultural imperialism should be thought of as a separate phenomenon because it has been used as a justification to protect French film, not until it becomes viable in the market on its own but indefinitely as a facet of national identity.

Today, the French have good reason to feel that their long-fought defense of their film industry has paid off. Since the new millennium, it has consistently produced either the most or the second most films, year over year, in the European Union, a position it shares with the UK.²⁶ It is the center of the European coproduction microcosm.²⁷ Though they have

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²⁴ Ibid. 23

²⁵ Batz, Jean-Claude. "A propos de la crise de l'industrie du cinéma." (1963), cited in Buchsbaum, Exception Taken, 52

²⁶ Albornoz, Luis A. Diversity and the film industry: An analysis of the 2014 UIS Survey on Feature Film Statistics. UNESCO Institute for statistics, 2016.

²⁷ Ibid. 26, pp. 11

seen only modest growth in their theater attendance in the last two and a half decades, the French film industry remains vital and employs more than 100,000 people²⁸. Excepting the UK, which enjoys a common language and special relationship with the United States, France is the single dominant producer of cinema on the continent. French cinema enjoys substantial public support, ranging from automatic aid to selective aid, funds to aid distribution, the construction, restoration and expansion of theaters, publically run film festivals, specialized welfare for film workers and more. What differentiates French film industry from other national film industries is this conscious process of redistributing money from big films and television to arthouse films.²⁹ For instance, the TSA from which the majority CNC funds originate, is a tax that disproportionately extracts funds from the larger, more profitable films and donates it to smaller films. While the policy towards of forced investment has lead to a great deal of private capital being invested in French film production, the amount of money and market conditions (including a large and stable labor market and access to French film festivals) available to smaller, more artistically ambitious productions gives the French film industry its unique character.

Now the question that comes to mind, one which will inform the research question developed throughout this paper, is why the nation of France, with this strong and well regulated film industry, is unable to compete with the American film industry in the international sphere. The following chapter will evaluate several theoretical approaches to this question and develop a hypothesis regarding why the French film industry simply is not competitive with the American film industry.

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²⁸ Scott, Allen J. "French cinema: Economy, policy and place in the making of a cultural-products industry." *Theory, Culture & Society* 17, no. 1 (2000): 1-38.

²⁹ Cesbron, Mathilde. "Garandeau : «Nous Avons Un Cinéma Riche Et Puissant»." La Figaro. January 03, 2013. Accessed December 10, 2018. http://www.lefigaro.fr/cinema/2013/01/03/03002-20130103ARTFIG00362-garandeau-nous-avons-un-cinema-riche-et-puissant.php. "this money is redistributed from big films to arthouse films"

Chapter 3

Theory

At the end of chapter 2, we discussed the utter domination of the United State' film industry and summarized French policies which intended to protect their native industry. But far from needing protection, it seems that the French film industry, of all film industries in Europe, should be able to challenge American films. In the first section of this chapter, we will discuss how to think about film as a good, focusing on characteristics which differentiate it from other goods. Then we will bring up several theoretical explanations for the French inability to challenge in the international marketplace. Finally, we will set down a concrete theory which will motivate the empirical analysis in the following chapter.

3.1 Monopolistic competition

The literature around monopolistic competition begins with the work of Edward Chamberlin, *The Theory of Monopolistic Competition* which was published in 1933 and the Joan Robinson's oft overlooked *The Economics of Imperfect Competition*, also published in 1933. Both of these social scientists were attracted to the same issue in classical economics. They observed that many, perhaps even most competitive markets do not perform as one might expect. Even in markets with free exit and entry of firms, firms are able to retain a degree of price setting power and run an industry-wide profit year over year. One would expect that, over the long run, industry profits would tend towards to zero. Some of these markets fit within a subcategory of industries which Chamberlin defined as monopolistically competitive. In this model, products manufactured by different producers in the same industry are similar and exchangeable but differentiated in some way which is meaningful to the consumer. Oftentimes, firms are granted monopolies in the form of a copyright over

their product or a trademark over the brand which they use to market their product. Imagine the cereal market. Rick Krispies and Quaker Oats might be thought of as equivalent goods as they are both breakfast cereals, but a buyer could easily have a preference of one over the other. In the case of films and other artistic products, this monopoly protection takes the form of a copyright.

Because films are differentiated in this way, producers engage in monopolistic competition. Now the film market does have a few traits that make it different than other monopolistically competitive industries. For instance, individual producers do not have price setting power generally accorded to a monopoly. Ticket prices are set by exhibitors (theaters) rather than by producers or distributors. In the US, exhibitors and producers are legally barred from colluding or being co-owned (per US. V. Paramount Pictures). No such distinction exists in France and French exhibitors are often owned by large producers. However, an arbitration board on the CNC ensures that the exhibitors do not engage in anti-competitive practices such as discriminating against films produced by outside producers. So American and French producers do not have price setting power per se, instead they negotiate price sharing agreements with distributers. The price sharing agreement is the distribution of the income from a ticket above cost of print and renting the theater. For films that are expected to draw a larger audience, such as 2017's Last Jedi, distributors are able to negotiate extremely favorable exhibition agreements as exhibitors are willing to play the film for little more than the concession sales it will generate. While it is realized through a counterintuitive mechanism, the film injury is still able to act as monopolistically competitive one.

There are a few other important features of the film industry and of film as a commodity that are important to discuss before developing theory. First, digital film has

³⁰ D'Alessandro, Anthony, and Anthony D'Alessandro. "Disney's Lofty Exhibition Terms For 'The Last Jedi': It's Worth It, For The Popcorn Alone." Deadline. November 02, 2017. Accessed April 30, 2019. https://deadline.com/2017/11/the-last-jedi-disney-theater-chain-terms-popcorn-concession-sales-1202199763/.

negligible transport cost³¹ and even while movies were still on film, costs were extremely low. Now that most theatrical releases are distributed via satellite³², costs have shrunk still further. In addition, film has a high first copy cost and a low marginal cost. Once a film is made, it costs essentially the same to have it play on one screen or one thousand screens. Together these mean that, all else equal film is an extremely exportable good.

It also bears minding that films are not simply commodities, they are cultural products. As you have read in the previous chapter, France has a long history of publicly intervening in their film industry. These interventions prioritize producing films with certain qualities which preserve a national character. For instance, France provides incentives to movies that are shot in the French language, that have a cast and crew composed of French people and which are shot in France. Creating a profitable film industry is generally considered a secondary concern to preserving cultural heritage. This very decision may lead the French to encourage traits in their films that are not only orthogonal to profitable traits, but may in fact be actively harming their films and their film industry in the international market.

However, many voices in France believe that the industry should not be the responsibility of the taxpayer³³. In addition, as this piece discusses later, economies of scope allow that a film industry where more profitable films are produced on the higher budget end of the scale translates to a relative increase in the production and budget of films at the lower budget end of the spectrum, a 'rising tide lifts all boats' effect. Regardless, the purpose of discussion is to evaluate how the phenomenon of American dominance and

³¹ Oh, J. 2001. International Trade in Film and the Self-Sufficiency Ratio. *Journal of Media Economics*. 14(1): 31-44.

³² Lieberman, David, and David Lieberman. "About 75% Of Screens Receive Movies Via Satellite, Digital Cinema Group Says." Deadline. March 23, 2017. Accessed April 30, 2019. https://deadline.com/2017/03/about-75-screens-receive-movies-via-satellite-digital-cinema-dcdc-1202048869/.

³³ Maraval, Vincent. "Les Acteurs Français Sont Trop Payés!" Le Monde.fr. December 28, 2012. Accessed April 30, 2019. https://www.lemonde.fr/a-la-une/article/2012/12/28/les-acteurs-francais-sont-trop-payes_1811151_3208.html.

French underperformance operates. The decision whether to treat film as a public good or market good is up to the values of each nation.

3.2 From blockbuster to tentpole

In order to continue with our analysis of the performance of US and French films in the international film market, we must examine the relationship between budget and box office performance, both on the level of individual films and between national industries.

The last 20 years of popular film history have been dominated by Hollywood's "graduation from 'blockbuster' to 'tentpole'" (Waterman, 5). One could think of the old blockbuster model as a bunch of medium-sized, high risk bets. The studios produced many of new films with the expectation that most would lose money or break even but a few would make a great deal of money and put them in the black. The success of *Jaws* is seen as the beginning of this phenomenon which would become Hollywood's dominate model through the 1990s. This system is characterized by high risk and is best summarized by the immortal words of prolific screenwriter William Goldman in 1993. "Nobody knows anything ... not one person in the entire motion picture field knows for certain what's going to work. Every time out it's a guess, if you're lucky, an educated one." While Goldman is overstating the uncertainty of the system at the time, it describes the attitude of the era, and justifies the switch to the lower risk tentpole model which characterizes the industry in the present day.

The tentpole or franchise³⁵ model currently reigns at the top end of the Hollywood budget spectrum. Media properties, usually with a pre-established audience (*Twilight*, *Harry Potter*, Marvel), are optioned and produced into ultra-high budget with the expectation of equally high budgeted successor films. Tentpole films have less risk and support higher

³⁴ Goldman, William. Adventures in the Screen Trade. London: Warner, 1993.

³⁵ I avoid using the term 'franchise' because it might cause confusion. Film franchises were a major part of the Hollywood system well before either the blockbuster or tentpole model became dominant. However, with the rise of the tentpole model in particular, franchises took on a new role in the Hollywood system as they could reasonably guarantee returns and justify a larger investment.

budgets. So as tentpole films have become more common in Hollywood, the budgets of Hollywood films have increased. Some industry figures like Steven Spielberg have observed that overreliance on a single model could lead to disaster for the American film industry. However, this predicted failure has not come to pass and the trend of tentpole franchises continues to be on the rise in American film production.

Pokorny and Sedgewick (2010) observed this same phenomenon in their study of the budgets and profitability characteristics of Hollywood films. "We find an industry in which the distribution of revenues has become more unequal and the level of profitability associated with big-budget productions has increased."³⁷ The two economists observed a rapid increase in the inflation adjusted average budget from 92-99, consistent with tentpole theory. Over this same period a higher proportion of industry spending went to high budget films (Porkony and Sedgewick define this as the highest budgeted third of films released in theaters in a given year), increasing more than 15% of the total industry spending to nearly 60%. In addition, they observe an increasing rate of return for modern-day high budget pictures. Films with budgets 1.5 times larger than industry averages had a 25.5% rate of return while movies with budgets 3 or more times larger than industry average had a rate of return of 36.6%. This research corroborates the theoretical efficacy of the tentpole system. Not only has Hollywood adopted this system, they have been able to use it to consolidate their position internationally by distinguishing American films with extraordinarily high budgets that no other film producing country can replicate.

The tentpole model has lead to rapidly increasing budgets of Hollywood's most expensive projects. A film's budget is a predictor of its box office performance. Waterman

³⁶ Bond, Paul. "Steven Spielberg Predicts 'Implosion' of Film Industry." The Hollywood Reporter. June 12, 2013. Accessed April 30, 2019. https://www.hollywoodreporter.com/news/steven-spielberg-predicts-implosion-film-567604.

³⁷ POKORNY, MICHAEL, and JOHN SEDGWICK. "Profitability Trends in Hollywood, 1929 to 1999: Somebody Must Know Something." The Economic History Review, New Series, 63, no. 1 (2010): 56-84. http://www.jstor.org/stable/27771570.

examined the relationship between the Film Spending/GDP ratio of the US and each of the 5EUJ with US films' market share. ³⁸ This study found that the greater the difference between the two ratios, the greater the US market share. That means that, all things equal, a rise in US spending on film such as that that followed the adoption of the tentpole model would correspond to a rise in their share of the foreign film market.

3.3 Why is the French film industry different?

Over the past two decades, the US filmmaking system has seen a shift which has lead to increasing the budgets of the films on the highest end of the budget spectrum. The increase in the budgets of US films corresponds with increasing dominance in foreign markets, consolidating American control of the international box office. The French model cannot, for reasons that will become clear, enact this highly successful model within their industry and therefor are unable to compete in the lucrative foreign markets with American films.

The landscape in which the French film industry operates is systematically different than the landscape which the rest of the world, including the United States. It is defined by large government programs, subsidies, and quotas. Messerlin (2014)³⁹ finds that French films have a subsidy rate of 34%⁴⁰, far higher than US films. These government programs incentivize the production of smaller budgeted movies. For instance, France has a form of automatic aid for first-time filmmakers of €700,000. This sort of aid means that workers who specialize in film and producers are incentivized by the low risk of government aid to

³⁸ De Vany, Arthur. Hollywood economics: How extreme uncertainty shapes the film industry. Routledge, 2003.

³⁹ Messerlin, Patrick, and Jimmyn Parc. "The effect of screen quotas and subsidy regime on cultural industry: A case study of french and korean film industries." *Journal of international business and economy* 15, no. 2 (2014): 57-73.

⁴⁰ Though Messerlin uses a fairly strict definition of subsidy to construct this figure. The next chapter uses a more meaningful figure of public aid, defined as all sources of funding which result from government policy. This figure is between 40% to 60% annually for every year from 1994 to the present.

produce smaller films. These movies with small budgets and high artistic aspirations have become the international mark of French cinema. These are the films that the typical international consumer might be familiar with. *Le 400 Coups, Amelie, The Artist.* However, the names of the three highest grossing domestic French films, *Bienvenue chez les Ch'tis, Asterix & Obelix: Mission Cleopatra, La Grande Vadrouille* are all but unknown outside of the country. These large budget films, funded privately at a scale far exceeding the first three 'artistic' films, represent a market inefficiency. For reasons explored further in this paper, they are unable to find an international market for what should be their most profitable films.

There are a few factors that differentiate the film which fit into three categories. But this must be done with the understanding that the division is rough and the boundaries between each of these factors are fairly permeable. These three factors are: cultural distance, the political-economic environment in which the movies are produced, and the scale of the industry.

3.4 Home market effects

Economists looking to explain the dominance of the American film industry frequently point to the Home market effect (Waterman, 168). Paul Krugman describes it quite succinctly in 'Scale Economies, Product Differentiation, and the Pattern of Trade'. "In a world characterized both by increasing returns and by transportation costs, there will obviously be an incentive to concentrate production of a good near its largest market, even if there is some demand for a good elsewhere."

On the surface, it seems like this argument could almost completely explain the lopsided state of the global film economy. The US is the largest film market in the world by far. In 2017, the total US box office was 10.24 billion, more than a quarter of the global box

⁴¹ Krugman, Paul. "Scale economies, product differentiation, and the pattern of trade." *The American Economic Review* 70, no. 5 (1980): 950-959.

office, 2 billion more than the Chinese box office, and far more than the paltry 1.1 billion of the French box office. ⁴² Producers would prefer to have the easiest access to the largest market and so they will tend to produce films in the United States.

However, there are a few factors which complicate the home market effect and diminish its importance. First, film has negligible transport costs. This means that the location of manufacture is not important in governing access to a given market. While specific traits such as language or cultural traits of a movie might determine its performance in a market⁴³, the country of origin does not. For example, *Ready Player One* was the 24th highest grossing movie of 2018. The film takes place in a slum of Columbus, Ohio in the near future where the prevalence of an addictive virtual reality video game has lead to global decay. It was directed by Steven Spielberg and stars American actor Tye Sheridan. But most of the production took place in Birmingham, England which was painstakingly digitally edited to look like Columbus. However, this fact did not have any impact on the film's performance in the US, where it took in 137 million dollars, becoming one of the highest grossing Easter weekend releases ever. So the nation of origin is not a meaningful predictor of the performance of a film overseas. More important is the source of the funding and the intended audience of the film. Targeting the US is an effective strategy for a film, but it is one which French films could easily do. In fact, several of the best performing French films in history, including the Taken franchise, Leon: The Professional, and The Fifth Element have adopted this strategy by using mixed American and French casts, putting a significant portion of the movie in English, and setting the films in America. However, these films are fairly rare and the vast majority of the French film industry is set on making small budget pictures for a limited audience.

⁴² "Leading Film Markets Worldwide by Gross Box Office Revenue 2018 | Statistic." Statista. Accessed April 30, 2019. https://www.statista.com/statistics/252730/leading-film-markets-worldwide--gross-box-office-revenue/.

⁴³ The effect of these traits is discussed in the section regarding the cultural discount

If the home market is a useful way of explaining the structure of the international film industry, then it operates through a slightly different framework than Krugman hypothesized in "Pattern of Trade". In addition, France has duty free access to the markets of the EU, both as potential sites for exhibition and as access to investment. While it might be meaningful to think of these as factors which create the home market effect, the mechanisms by which the home market effect operates are different than those that Krugman ascribes in his work. Closely examining these mechanisms will help us develop a more robust model of the international industry.

3.5 Economies of scale

The film industry in particular, and the entertainment industry at large are subject to economies of scale. Krugman, Obstfeld, and Melitz even use it as one of their examples of an economy of scale when introducing the concept in the textbook *International Economics*⁴⁴. First this paper will summarize some of their arguments and then problematize them and bring in outside literature. This will help to develop the framework of the argument. Specifically, a nuanced analysis of the structure of the industry through economies of scale will allow me to argue both that the national film industries are comparable to one another and that changes in policy could alter the shape of the international order.

Economies of scale are the "tendency of unit costs to be lower with larger output"⁴⁵. Economies of scale incentivize centralization and specialization. External economies of scale are economies of scale on a regional or national scale. The typical Marshallian industrial district, set down by Alfred Mashall in *Principals of Economics* (1890), production is concentrated and economies of scale develop. Concentrated industries have access to specialized suppliers, labor can form a large pool, and knowledge spillovers can occur. In an

⁴⁴ Krugman, Paul R. *International economics: Theory and policy*, 8/E. Pearson Education India, 2008. pp. 146-148, 160

⁴⁵ Ibid 44, pp. 161

industry with such highly specialized labor and supply needs (how many other industries regularly call for trained cats?), it is easy to see how the film industry would concentrate to benefit from economies of scale.

Marvasti (2000) digs further in to examining the returns to scale of the global film industry. He finds that the film industry is one which rewards economies of scale. That is, Marvasti finds that the larger (by ratio of domestic to rest of the world investment) a national film industry is, the greater its profit will be. This is an example of increasing returns to scale. But his analysis goes further. He writes "[t]he large size of the domestic market appears to be important for supporting expensive stars and blockbusters as well as an excess supply of films for the global market" Here he observes a connection between the economies of scale the the US experiences and the home market effect. That is that having access to a large home market helps develop of a large domestic film industry which can, in turn, become an internationally competitive one. In essence, this means that a dollar spent in the American film industry goes farther than a dollar spent in the French industry.

3.6 Cultural discount

The concept of cultural distance also plays a significant role in determining the success of a film abroad. Some economists such as Oh⁴⁷ have argued that a measure of 'foreignness' plays into how willing country A (say, Angola) might be to view the films of country B (say, Bahrain). When the cultural distance between the values of A and B are very different (as they are between Angola and Bahrain) then the audience will consider the foreignness of the foreign film as a cost which increases as the perceived foreignness increases. Oh (2001) measures this along dimensions set out by Professor Geert Hofstede in

⁴⁶ Marvasti, Akbar. "Motion pictures industry: Economies of scale and trade." *International Journal of the Economics of Business*7, no. 1 (2000): 99-114

⁴⁷ Hofstede, Geert, and Michael Harris Bond. 1988. "The Confucius Connection: From Cultural Roots to Economic Growth." *Organizational Dynamics* 16 (4): 5–21. doi:10.1016/0090-2616(88)90009-5.

Culture's Consequences and finds that cultural distance contributes significantly to the difficulty that the Korean film industry has finding an export market for their films. The films perform worse in countries where they are increasingly foreign. Looking at Hofstede's metrics, we can generalize these results with other large. This could explain, in part, the inability of French film to find its way into the world market. However, in Hofstede's index of cultural attitudes puts the US and France within 15% of each other on each of the values that it measures. While indexes are a notoriously imprecise way to measure anything, especially something as complex as culture, this result does point toward a real conclusion. American and French cultures are quite similar, especially in the context of the rest of the world. So while it is true that countries have a distaste to foreign films, it does not seem that this would be a large cause of French noncompetition in the international film market.

3.7 Industrial policy effects

As the previous chapter attests, the French have a long history of publically intervening in their film industry. This section argues that these interventions have tended to decrease the average budget of French films.

We can think of French film coming from four separate types of streams. The first is through conventional private investment. This can be either domestic or international. *The Artist* was primarily financed by Orange S.A., a French entertainment and telecommunication giant. This is an example of a fully private investment. In total, this has accounted for an average of 49% of the total funding that French films have received each year since 1994.

The second is privately owned, publically managed funds. In reality, this is only the SOFICA which stands for *Société pour le financement de l'industrie cinématographique et audiovisuelle* (Society for Financing the Film and Audiovisual Industry). They are tax free

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⁴⁸ Ibid. 47

accounts which private institutions and individuals can deposit large amounts of money to be invested in the film industry at the discretion of the French government for a set period of time, usually five years, and receive back a guaranteed return. It could be useful to think of these as a sort of bond. The money put into them is managed by the CNC and primarily funds what Americans would consider 'independent' low budget films. For instance, 2017's Palme d'or competitor *L'adamant double* (an adaption of Joyce Carol Oates' truly wonderful *Lives of Twins*) was funded in part with the help of SOFICAs. SOFICA spending has averaged around 3.5% of total French film funding.

The third source of French film funding is privately administered, publically compelled funding. In this case, private organizations are forced to invest an amount mandated by the government in the film industry. However, they retain control over what they fund and receive creative control as well as perks like licensing rights and early broadcast access. Studiocanal, a division of Canal+, manages their induced investment. Each year, Studiocanal is forced to invest a set percentage of their profits into French and European films as part of their original compact with the French government. While often associated with funding foreign movies (including *A Serious Man* and *Terminator 2*) as well as European blockbusters like the *Paddington* franchise. In addition to several television channels (though none as high as Canal+'s 20%), other industry groups such as distributors are mandated to invest in French film production. Total compelled financing comprised an average of 38%⁴⁹ of total funding for French films.

Fourth and finally, there is straight public aid. It takes the form of selective and automatic aid, comes directly from the CNC and is primarily financed by the ticket tax. Since the formation of the EU and the creation of the GATT, the total of this explicitly public aid in France has been between 5% and 15% of total spending on domestic film production.

⁴⁹ CNC, production cinématographique – données statistiques, (18 January 2019), distributed by the CNC, https://www.cnc.fr/cinema/etudes-et-rapports/statistiques

French industrial policy around the film industry is not limited to the sources of funding of films. There are several other specific policies that have a significant effect on the shape of the French industry. First and perhaps most well known is the French quota system. At least 40% of screens in French theaters must be playing French films (for which there is a very specific definition) and 60% must be playing films of EU origin including France. This means premarket protection for their films. However, Lee and Bae conducted a study of the Korean film industry before and after the Korean film industry did away with screen quotas. They found that the screen quota system "should not be an effective mechanism to limit the number of foreign cinemas screened in its own territory" They find that screen quotas have no effect on the viewership of foreign vs domestic films.

The French offer a special type of unemployment insurance for workers in the arts called *intermittent du spectacle*. It gives workers security and creates slack in the labor market. It is especially helpful for film, where work is largely piecemeal and productions require large crews of highly specialized labor, from scenic carpenters to gaffers to hair and makeup to video effects. In 2016, the total labor force of the French film industry was calculated at 71,269⁵¹. For comparison, the US film industry employed over 250,000 people in 2016⁵².

3.8 Conclusion

In this chapter we discussed film as a good, noting characteristics which make it a particularly good one to export. Then, we discussed several factors which could contribute to the particular dominance of American film in the international marked and the particular weakness of French films. Economies of scale, the home market effect, and cultural discount

⁵⁰ Lee, Byoungkwan, and Hyuhn-Suhck Bae. "The effect of screen quotas on the self-sufficiency ratio in recent domestic film markets." *Journal of Media Economics* 17, no. 3 (2004): 163-176.

⁵¹ Eurostat. *National employment data by industry*, April 5, 2019. http://appsso.eurostat.ec.europa.eu/nui/submitViewTableAction.do

⁵² "A Look at Employment and Wages in the Film Industry." U.S. Bureau of Labor Statistics. February 27, 2017. Accessed April 30, 2019. https://www.bls.gov/opub/ted/2017/a-look-at-employment-and-wages-in-the-film-industry.htm.

all play a role in promoting American film. However, the following empirical chapter will focus on measuring the effect of French industrial policies on their film industry. This is done for two reasons. First, the industrial policy of a country is entirely discretionary. France cannot legislate itself into a more populous country or change a few laws to make their culture more palatable to international audiences. But they can easily change their system of aid, as they have many times in their history, to promote specific aspects of their film industry. Second, it is not static. Because the composition of the money that is put into the film industry at the behest of the French government changes year-over-year, its effects are discreet and measurable. So, while the following chapter focuses on the effects that French industrial policy has on international performance, it should not be interpreted as completely explaining the balance of international trade in film. Further studies, specifically cross country studies could be useful in building an understanding of and reinforcing the theory behind the effects that economies of scale, the home market effect, and cultural discount play in the international film market.

Chapter 4

Empirics

In the previous chapters, we discussed the industrial history of film in france, focusing on the enormous role played by different methods of film funding which in which the French government plays some role. From research and theory, we derive a hypothesis; public spending tends to decrease the typical size of films. Smaller films tend to perform worse in the international market, so this could explain an important component of the French noncompetitiveness in the international film market.

4.1 Data

As with all empirical analysis, it is important to chose good data. The following regressions use data provided by the CNC⁵³, the French national film service. It provides aggregate yearly data for all sources of French film funding. In addition, the French CPI⁵⁴ and GDP⁵⁵ data were provided by OECD. Box office data were provided by Unifrance⁵⁶, a French audiovisual agency aimed at promoting French film abroad and run under the CNC.

In order to measure total public spending, this study combined several streams of funding into a single figure. This figure represented to fraction of total annual funding for the film industry which coming from which originated due to government policy. First, it included aid originating directly from the government. This includes automatic aid, selective aid awarded based on predicted artistic quality, and regional aid administered by local

⁵³ CNC, production cinématographique – données statistiques, (18 January 2019), distributed by the CNC, https://www.cnc.fr/cinema/etudes-et-rapports/statistiques

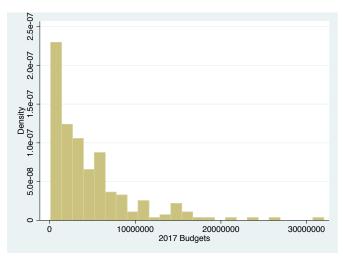
⁵⁴ OECD (2019), Inflation (CPI) (indicator). (14 April 2019) doi: 10.1787/eee82e6e-en

⁵⁵ OECD (2019), Gross domestic product (GDP) (indicator). (14 April 2019) doi: 10.1787/dc2f7aec-en

⁵⁶ Unifrance, *Chiffres & Tableaux: Données films français*, (14 April 2019), distributed by Unifrance, https://www.unifrance.org/box-office/74807/monde#

governments. It also includes compelled aid. Similar to the arrangement which the French government reached with Canal+ in 1984, certain groups, notable television channels, distributors, and exhibitors are required to invest a portion of their income into film production. However, unlike the taxes which they pay into the CNC which are also reinvested in film, these investors retain ownership over the film. Finally, the index included SOFICAs. SOFICAs function similarly to bonds. They are government backed investment with set maturities and returns as well as tax exemption. The French government invests SOFICA money into films of its choosing. These sources of funding were gathered into a single index because all of them exist due to specific government policy, one which represents French political concerns (such as maintaining a national cultural industry) and one which the government has legislative power to both to enforce and alter. Thus, 'public aid' might be a misnomer to describe the index as it includes private sources of cash, invested for profit. This index, expressed as a percent of total yearly investment, is an independent variable in the regression.

The timeframe of the data was chosen to begin in 1994 and end in 2018. The timeframe was chosen to begin after France had joined the European Union. This is intended to reduce the influence which political shocks might have had on investment in film while



retaining as much data as possible.

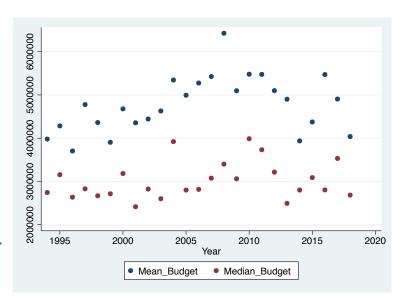
The budgets of French films, and of films in general are highly skewed. As we can see in the corresponding density plot which represents the budgets of all French films produced in 2017⁵⁷, they are skewed toward the right. This makes intuitive

⁵⁷ It should be noted that data for the budgets of every film produced in a given year is only available for the most recent seven years. While this sort of data is extremely rich, the small sample size meant that it does not return significant results for analysis across years and therefor is not used in further regressions.

sense. It is far easier to find the resources to produce a film at the lower end of the budget spectrum than the upper end so more of them are produced. Research shows that the most profitable films are the ones at the highest end of the budget distribution⁵⁸. So we are looking to see how public spending impacts this distribution. Two different measures of the density of the data show interesting results which will help determine our estimator. First, the data returns a skewness coefficient of 2.2, which reinforces what we can see from the graph, the distribution is skewed toward the right and the mean is greater than the median. Second, we find a kurtosis score of 9.33, which means that a relatively large amount of the data is distributed in the tails⁵⁹. So we have highly skewed data with fat tails. We will construct a dependent variable which responds to this trend and produces a meaningful measure of it.

The dependent variable in the first regression was the difference between the mean and median budgets of French films produced in a given year.

Accordingly, a larger difference means more skew which means that the movies on the right end of the distribution had relatively



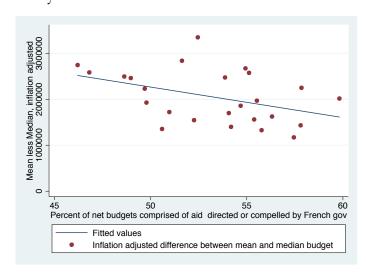
larger budgets. In essence, the regression sought to analyze the link that the percent of investment coming from public aid has on the distribution of movies, either towards or away

⁵⁸ Ravid, S. Abraham. "Information, Blockbusters, and Stars: A Study of the Film Industry." *The Journal of Business* 72, no. 4 (1999): 463-92. doi:10.1086/209624.

⁵⁹ Westfall, Peter H. "Kurtosis as Peakedness, 1905 - 2014. R.I.P." The American statistician vol. 68,3 (2014): 191-195. doi:10.1080/00031305.2014.917055 Note that this is opposed to the perception, common among statisticians, that kurtosis measures peakedness.

from the high-budget movies that perform well internationally. A Shapiro-Wilk test does not find evidence that the data are not normally distributed.

Here is a graph of a basic OLS regression of public aid against the difference between mean and median budgets. While refinement of the regression is needed to control for externalities and autocorrelation, this early graph represents a relationship which warrants investigation.



All values were controlled for inflation using OECD data. In addition, controls for the financial environment were added to control for the possibility that public aid might simply 'fill the gap' when non-public funding retreats or grows due to market conditions which might trigger changes in investment such as recession or expansion. For this, OECD data on the French GDP were used both as the present year and with a one-year lag to account for longer, multi-year production cycles. The preliminary model resembles the following equation.

$$Y_1 = \beta_0 + \beta_1 X_1 + \beta_2 GDP + \beta_3 GDP_{t-1} + \epsilon$$

Where Y is the difference between mean and median films in year t, X_1 is the ratio of total annual funding to the French film industry which comes from identified sources of public aid to total annual funding. GDP and lagged GDP are used to proxy for economic conditions which influence investment. While this model is sound and fits in with theory, it has the risk of a high degree of autocorrolation (also called serial correlation) which is a correlation of the residual to itself over time in a regression. If left uncorrected it can lead to over predicting the R^2 and the significance of the independent variable(s). Early versions of the regression found a high degree of autocorrelation via a Durbin-Watson test. To correct for this, we transformed the simple OLS regression into a Prais-Winsten and Cochrane-Orcutt

regression, a modified OLS regression which is a standard method of correcting for autocorrolation. This regression introduces Spearman's rank correlation coefficient, written as the Greek character rho, a measure of the correlation between an error term and the following error term. The completed Prais-Winsten and Cochrane-Orcutt regression performs a series of regressions to find an approximation of Spearman's coefficient and uses it to perform the following transformation for each t beginning with t=1.

$$Y_{1}\sqrt{1-\rho^{2}} = \beta_{0}\sqrt{1-\rho^{2}} + \beta_{1}\left(\sqrt{1-\rho^{2}}X_{1}\right) + \beta_{2}\left(\sqrt{1-\rho^{2}}GDP_{t}\right) + \beta_{3}\left(\sqrt{1-\rho^{2}}GDP_{t-1}\right) + \sqrt{1-\rho^{2}}\epsilon_{1}$$

The transformed regression returns a Durbin-Watson test which indicates that the autocorrolation has been successfully controlled so this modified regression is suitable to use for our test.

We also looked at a second regression which seeks to measure the effect of public spending on the annual box office for French films. Our dependent variable in this test is the annual box office for all French films. If our theory holds sound that public spending decreases the amount of high budget movies which perform worse abroad, then we would find a negative relationship between public spending and box office performance.

$$Y_2 = \beta_0 + \beta_1 X_1 + \beta_2 GDP + \beta_3 GDP_{t-1} + \beta_4 X_2 + \beta_5 X_3 + \epsilon$$

Where Y_2 is the total annual box office of French film in year t, X_2 is annual spending on films and X_3 is the number of films produced annually. Neither of these X-variables could be included in the first regression as they are accounted for in the mean-median differential. This regression returns no autocorrolation or heterosketasticity, so it is performed unchanged.

⁶⁰ Rethemeyer, R. Karl. "Serial Correlation, the Durbin-Watson Statistic, and the Cochrane-Orcutt Procedure." Rockefeller College, University of Albany, February 26, 2006. https://www.albany.edu/faculty/kretheme/PAD705/SupportMat/SerialCorrelation.pdf.

4.2 Results

	(1)	(2)
	Differential	Box Office
Public Aid	-104725.7***	19768571.1*
	(-5.38)	(2.13)
GDP	-2.198	-702.7
	(-1.22)	(-0.73)
Lagged GDP	1.533	523.2
	(0.85)	(0.58)
Budget		-0.190
		(-0.78)
# of Films		3038568.0
		(1.17)
Constant	9399511.6***	-688445979.1
	(4.99)	(-1.13)
N	23	24
R-sq	0.614	0.381

t statistics in parentheses

The first regression against the mean-median differential turned back highly significant results. It shows that a 1% increase in the total French film spending corresponds with a decrease of the difference between mean and median budgets of more than 100,000 euros. The secondary hypothesis that public aid simply 'fills the gap' left by falling investment is also cast into doubt. Neither GDP nor lagged GDP, which proxy for investment, have a significant relationship with the distribution of budgets.

Meanwhile, the second regression tells a different

story. It shows the effect that public aid has on the total box office of positive. While a 2.13 t-score just barely makes a 5% α -level (2.13 corresponds to a p-value of 0.048), it still indicates a fairly significant relationship, and one likely to be reinforced by a larger sample. We can interpret this as a 1% increase in the public aid corresponds with an increase of nearly $\ensuremath{\in} 20$ million in annual revenue.

4.3 Discussion

The regression specified above indicates that the French system of government control in the field of film production has a significant depressing effect on the distribution of budgets of the films produced in each year. It decreases the difference between the median and mean budgets. This means either that the mean is moving toward the median and/or the median is moving toward the mean. If the mean is moving toward the median, that means that the budget of the very largest films produced in that year are smaller. If the

^{*} p<0.05, ** p<0.01, *** p<0.001

median is decreasing, that means that the budget of the middle most movies is increasing. In either case, according to our initial hypothesis, this public aid is wasting money encouraging unprofitable characteristics.

Interestingly, the second regression seems to indicate a positive relationship between public investment and the international box office performance of films. So while public aid does decrease the upper end of the distribution of the budgets of French films, it actually has a positive effect on the performance of French films. Even when total budget and number of films are controlled for, it retains a positive relationship. This indicates that the French system of public aid is working.

Moreover, this rejects our hypothesis. Though public spending does draw down the size of the typical French film as seen in the first regression, it has a positive relationship with how French films perform in the box office, even when controlled for total spending, economic conditions, and the number of films produced that year. There are a two ways to interpret this result that seem meaningful and theoretically consistent. Perhaps the public funds help get high quality films off of the ground which might not have found a producer in the private market. The government in the case of automatic aid receives no creative input, and in the case of selective aid only approves or rejects a script, ditto for the SOFICAs. So perhaps, while government aid does mean that the movies that get produced are smaller, the artists retain a higher degree of creative control and can make a better product. In this case, we would consider the film program of France a complete success.

Another way of looking at this is that it increases the budget of films on the lower end of the spectrum at the expense of the films in the middle of the spectrum rather than decreasing the budget of the films on the highest end of the spectrum. In this case, the reason that increased public spending is correlated with an increased difference between the mean and median budgets for a given year is due to the mean being increased by higher budgets of many films at the lower end of the spectrum and slightly lower budgets at the middle of the spectrum rather than the median changing due to fewer high budget films

being produced. In this case, public spending increases box office due to the effect that increased budgets mean increased revenue. Relatively more expensive low budget pictures translate into a more profitable industry as a whole.

4.4 Future Directions

Further studies could do better by analyzing the distribution of movies in a given year rather than the difference between the median and mean, which provides an unbiased but dull means for discerning the distribution of the data. In addition, analysis which spanned over the entire history of a national cinema, specifically one which has gone through periods of public support and periods without public support could help cast light on the specific effect of different types of aid.

In addition, future studies could do well by looking at cross country data to examine the effects of factors introduced in chapter 3. The field of entertainment economics is still largely unexplored and examining the effects of things like the home market could help countries interested in protecting their national industries innovate strategies to combat American hegemony.

Chapter 5

Summary

In the second chapter of this project, we looked over 70 years of French industrial policy and investigated the numerous ways which they protected their film industry. In the third, we developed a theory of several contributing factors which could together explain American dominance of the global film market. At the end of this process, we examined our hypothesis that the French system of public aid hurt their films in the aggregated foreign and domestic box office.

We concluded our analysis with two results. The econometric tests find significant evidence that the policies perused by the French government incentivize the production of smaller movies and distort the distribution of budgets. However, this arrangement seems to be a successful one. France's policy of public and publically mandated spending has managed to increase rather than decrease the box office performance of their films. But the industry is still under threat. It is far less profitable than the American industry. In fact, the French film industry has run deficits of hundreds of millions of euros as recently as 2016. ⁶¹ If France wishes to build an internationally competitive industry, the answer is clear. They must follow the United States' lead and increase their funding of huge budget pictures by encouraging domestic and international investment, produce films that appeal a wide audience rather than as elements of a unique and vital culture, and more generally step away from the new 'tradition of quality' which gives French film today its culture.

However, if there is one thing that has been reinforced in the course of this project, it is that this is not what the French government wants. They view the production of culture to be its own justification. Film is art, and it is irrelevant to the value of the art whether it is

⁶¹ CNC, production cinématographique — données statistiques, (18 January 2019), distributed by the CNC, https://www.cnc.fr/cinema/etudes-et-rapports/statistiques

profitable or not. In the American context, profit is key because it allows a filmmaker to continue to make films. Film is an investment and if it loses money, the filmmaker loses investors as well. But the French have carefully built a system of public aid where the majority of funding to the industry is contributed without the necessity of profit. Many of the most important filmmakers, not only in the country of France but in the world, benefit from the freedom to make unprofitable, artistically ambitious films. *Beau Travail* lost money. *Jules et Jim* lost money. *Le Samouraï* lost money. And the French have carefully, over 70 years of history, two republics, ten different leaders, cycles of expansion and contraction, built and maintained a system which allows these films to be made.

At the end of this project, I feel that I have asked the wrong question. It is not how the French could adopt American methods to find success, nor which methods should they adopt. The question is why would they want to change in the first place?

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