

Film Trade in Japan since the 1950s: Government Policies and Media Development

by LEE Sang-Woo*

Introduction

After World War II in the 1950s, Japanese cinema entered a time of unprecedented creativity and prosperity. That is, there had been a post-World War II peak in competitiveness of the Japanese film industry with American films in Japan before television substantially diminished the domestic resource base of Japanese film producers. For example, in Japan, domestic films earned more than 70% of the box-office at their peak in the late 1950s. Throughout the 1950s, domestic film output fluctuated between 400 and 600. Japan's domestic share was higher than 60% until the early 1960s.

However, Japan's domestic market share has greatly decreased since then, to a low of 40% in the late 1990s, while American movies accounted for nearly all of the remaining 60%. In the 1960s, major film studios faced persistently declining demand, so they reduced their movie output. In the 1980s, the domestic movies' box-office shares in Japan were about 50 percent. However, by 1990, they had decreased to 40 percent. In sum, Japanese films still had around 30 to 40 percent of the Japanese box office admissions in the 1990s, which is relatively high in comparison with other Asian countries' domestic share. Nevertheless, Japanese films' share has decreased consistently since the 1960s. Domestic film output in Japan has also decreased to around 250 in the late 1990s.

Then, the question is how Hollywood has overwhelmed the Japanese film industry since the 1960s. In this study, I address this question from an economic perspective—with particular attention to the roles that national film policies may have played in that success. For that purpose, I conduct an extensive empirical study of box-office trends and consumer movie spending in the United States and Japan since the 1940s. I then interpret these data in light of comparative national film policies and regulations.

I begin with a literature review, followed by the historical pattern of rising dominance of American movies in the Japanese film market. Then, I introduce the home market economic model, followed by graphical interpretations.

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Finally, I interpret the results from a policy perspective, followed by concluding comments.

Theory

In order to consider the relative magnitude of trade flow in film and television, a few specific economic models have been employed (Hoskins & Mirus, 1988; Waterman, 1988; Wildman & Siwek, 1988). These models do not assume transports cost, which was a major assumption of the economic geography models. However, they have three common assumptions that lead to a home market effect.

First, there are economies of scale in the distribution of movies or television programs. That is, the incremental cost of distributing a film to consumers is relatively low because a film has a high first copy cost but low marginal cost of distribution (Owen, 1975; Rosse et al., 1978). Second, viewers are attracted to films and programming that are produced with larger production budgets. Third, cultural variables such as language (Straubhaar, 1991) are advantages for film and television producers. All else being equal (e.g., the quality of the programs produced), “cultural proximity” is a crucial factor in audiences’ programming choices (Pool, 1977; Tracey, 1985; Straubhaar, 1991; Wildman & Siwek, 1988, 1993).

The implication of these models is that movie producers in relatively large and wealthy countries will usually tend to have large market shares of theater box-office revenues, both in their domestic market and, to a lesser extent, in foreign markets. Because of a public good characteristic of television programs and movies, production cost is invariant to the number of viewers, and the huge economies of scale exist. If we assume that the costs of production are the same for all producers and the size of cultural discount is equal for all countries, U. S. dominance of international film trade can be explained by the fact that the United States has the largest domestic market. However, if the level of cultural discount is relatively small for U. S export of films, the extent of U. S dominance will be increased. Hoskins and Mirus (1988) state that U. S broadcasting programs have a low level of cultural discount because they are more likely to be entertaining, common-denominator, and tried-and tested programming that appeal to viewers in most foreign markets. Furthermore, since U. S. movie producers have the world’s wealthiest language market, they are able to amortize the high first copy costs in both the domestic and the world’s largest language market (Collins, 1994).

However, the recent advent of new regional markets shows the growing importance of geographic proximity and language. For example, the most popular programs in regional markets are domestic and regional, so that U. S. cul-

tural products are becoming less important. For instance, Rogers and Antola (1985) examined Latin American markets and found that countries in that region imported primarily from other Latin American countries, especially Brazil and Mexico, while imported U. S. series were used as filler for less popular time slots.

In summary, motion pictures are characterized by low marginal costs in distribution but high first copy costs. Thus, due to the economies of scale in distributing movies worldwide, producers in countries with large domestic movie spending have an incentive to make relatively high budget films because they have large potential markets. Since the United States is one of the largest single markets in the world for theatrical movies, U. S. movie producers have an incentive to create high budget films that can attract many viewers in the rest of the world. This is why American movies are so dominant in other countries.

Several empirical studies have supported the economic model in the area of international television trade. Waterman (1988) compared the economic infrastructures that support broadcast television in the United States to those in five of the major trading partners of the United States (France, Germany, Italy, UK, and Japan) in terms of GDP, population, and amount and type of support (advertising or subscription fees). In addition, he examined the movie infrastructures of all six countries, in terms of box office revenues and the total number of annual theater admissions. In both cases, Waterman found that the United States had an overwhelming advantage in terms of population and economic resources, which made U. S. dominance in the world television and film industries more likely. Waterman and Rogers' (1994) empirical study on 34 national broadcast television networks in nine Far East Asian countries showed that the percentage of domestically produced TV program hours in the Far East Asian countries was positively related to those countries' gross domestic products (GDP) and/or the proportions of those countries' gross domestic products (GDP) to the broadcast media. Dupagne and Waterman (1998) examined the economic determinants of the import of U. S. television fiction into 17 Western European countries. Using a sample of all fiction programming that aired on 61 television stations in these 17 countries, they found that the GDP of these countries was negatively related to the percentage of U. S. fiction aired on these stations. This indicates that, other things being equal, the greater the GDP in the countries studied, the lower the amount of U. S. fiction imports in those countries. Dupagne and Waterman also found that an estimate of total broadcast revenue in the countries in question—that is, all revenues from advertising, sponsorship, license fees, public subsidies, and other sources—was a significant negative predictor of U. S. fiction programs. They also found that a country with a larger domestic television infrastructure would import a lower proportion of its programming from the United States than a country with lower domestic broadcast television infrastructure.

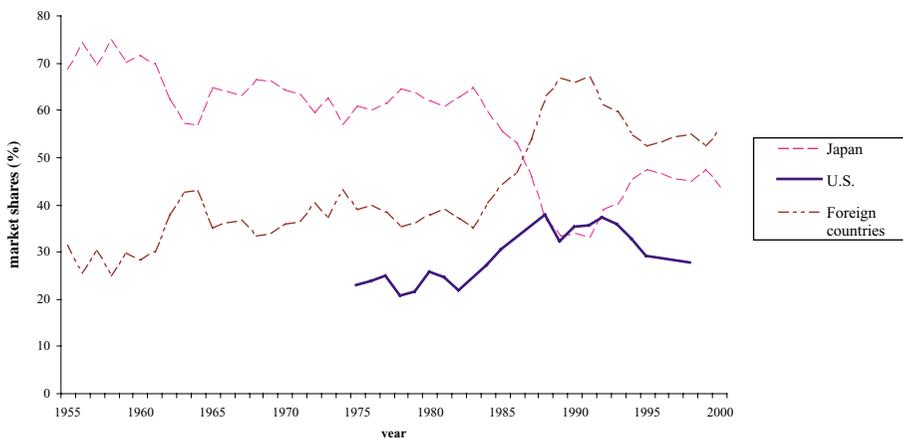
Several empirical studies have also confirmed the soundness of the economic model in the area of international film trade. Jayakar and Waterman's (2000) empirical study, which used the cross-sectional data from box-office market shares and movie spending by 23 countries, showed that in countries that have relatively high consumer spending on movies, domestically produced movies account for relatively large shares of theater box office revenue. In this model, consumer movie spending is defined as the sum of annual box-office, video, and pay-TV revenues in each country. The study also found that U. S. movies accounted for relatively small market shares of box office in foreign countries with high consumer movie spending. This indicates that the development of primary movie support, that is, revenue from the box-office, pay-TV, and videocassette rentals and sales, was a strong determinant of the relative market shares of domestic and U. S. movie producers. The use of GDP as an independent variable instead of movie spending also supported the economic model. In short, Jayakar and Waterman demonstrated that the size of a domestic film infrastructure was positively correlated with domestic movie market shares. These results are consistent with predictions of an economic model of international trade in media products. Waterman and Jayakar (2000) tested the economic model using time series data on total primary movie spending—theater tickets, pay television subscriptions, and videocassette rentals and sales—in the United States and the four largest European countries to correspond with the 1950-1997 market share data for Italy and the United States. In the regression analysis, they used the box-office market share of Italian films in the domestic market as a dependent variable, while they used the Italian share of the primary movie spending in the United States and the four largest European countries as an independent variable. The result confirms the economic model. The coefficient of the spending variable was significantly positive, indicating that as the Italian share of total spending increases, so does the Italian box-office market share. The relationship between the box-office share of American movies in Italy and the ratio of Italian to U. S. primary movie spending was also tested. This result also confirmed the economic model. That is to say, there was a significant negative relationship between these two variables, indicating that higher media spending in the United States in comparison with spending in Italy is related to an increase in U. S. film market shares in Italy. Using graphical analysis, Waterman and Jayakar also show that the United States has grown its domestic media for exhibiting films, especially pay television and videocassettes, more than Italy has. This faster development for such media has provided American producers with economic support that has resulted in a relatively greater increase in film production investment than Italian producers have been able to sustain. One of the problems has been that the Italian film industry has relied heavily on broadcast television, which is a relatively inefficient medium in the support of theatrical film investment. Oh's (2001) analysis of 1988-94 box-office data from 21 coun-

tries finds a significant relationship between the box-office market share of domestic films and gross domestic product (GDP), total box-office revenues, and some measures of “cultural distance” from the United States. Using a 1955-2000 database on media industry development in the United States and Japan, Lee’s work (2002) supported the home market economic model. Using consumer spending and related historical data on the four media for primary movie exhibition—theaters, premium pay television, PPV, and prerecorded videocassettes—in France, Germany, Italy, the UK, Japan, and the United States, going back to the 1950s, to correspond with the box-office market share data, Waterman and Lee (2001, 2002) found a significantly positive relationship over time between measures of domestic consumer spending on movies and domestic box-office market shares in these countries, and a negative relationship between domestic movie spending and American movie market shares.

The Pattern of American Dominance in Japan

This section describes historical trend in the balance of trade for the movie industry in Japan. Figure 1 shows the share of total film releases by national origin in Japan since the 1950s. This graph illustrates an increase of foreign films in the Japanese film market. The proportion of Japanese movies was still dominant until the 1980s, but it has significantly decreased since the early 1980s. Although data on the proportion of American films in the Japanese market is only available from 1975 to 1993, the proportion of American movies tended to increase after the 1980s.

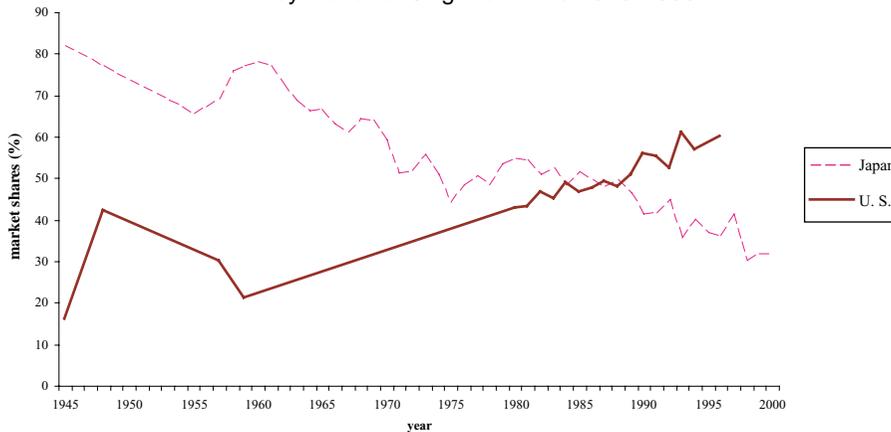
Figure 1 Shares of Total Film Releases in Japan, by National Origin of Films 1955-2000



Sources: Kinema Jumbo

As for the box-office market share, American films' rising share in Japan, along with the relative decrease in domestic shares, is remarkable (Figure 2). In other words, the Japanese market for theatrical films has become increasingly receptive to American movies. In summary, the long-term trends show a decline in fortunes of locally produced movies in Japan until the late 1990s.

Figure 2 Box-office Market Shares in Japan, by National Origin of Films 1945-2000



Sources: Kinema Jumbo and Screen Digest

Methodology

Home Market Economic Model

Wildman and Siwek (1988) developed the home market economic model to explain the patterns of international trade in video products. In the two-country model, they showed that producers in larger countries and producers with large natural-language markets have an incentive to create higher budget films. This means that profit-seeking producers are more likely to spend money on film investment if they have larger potential markets for their films. Thus, those films with high production values will appeal to audiences both at home and in foreign countries.

Jayakar and Waterman (2000) reformulated Wildman and Siwek's two-country model in the following way. Let A and B be the two countries. Subscript i and j represent producers of individual films in country A and B , where $i=1, \dots, N_A$, and $j=1, \dots, N_B$. N_A and N_B are the number of movies produced in country A and country B , respectively. I_i and I_j are the production investments of producers i and j , respectively, and d is the cultural discount factor, where $0 < d < 1$. S_{iA} and

S_{iB} are defined as the market shares of producer i in country A and country B, respectively. Similarly, S_{iA} and S_{iB} represent the market shares of producer j in country A and country B, respectively. Jayakar and Waterman (2000) then show how S_{iA} , S_{iB} , S_{jA} and S_{jB} are determined by I_i , I_j , and d as follows:

$$\begin{aligned} S_{iA} &= I_i / (\sum_i I_i + d \sum_j I_j) \\ S_{iB} &= d I_i / (d \sum_i I_i + \sum_j I_j) \\ S_{jA} &= d I_j / (d \sum_j I_j + \sum_i I_i) \\ S_{jB} &= I_j / (\sum_j I_j + d \sum_i I_i) \end{aligned}$$

Let R_A and R_B be the total consumer spending on movies and assume it to be fixed in countries A and B. Assuming that the marginal costs are zero, profit functions are defined as:

$$\begin{aligned} \Pi_i &= R_A S_{iA} + R_B S_{iB} - I_i = 0 \\ \Pi_j &= R_A S_{jA} + R_B S_{jB} - I_j = 0 \end{aligned}$$

In this model, producers are monopolistically competitive with free entry, and there is free trade. Each producer maximizes profit with respect to its investment level, I_i and I_j . Assuming the d 's are equal, Wildman and Siwek showed that with symmetry (that is, all producers within each country invest the same amount), the fact that total consumer spending on movies in country A (R_A) is larger than that in country B (R_B) indicates not only that the production expenditures of producers in country A (I_i) are larger than those in country B (I_j), but also that the number of movies produced in country A (N_A) is larger than that in country B (N_B) for all i and j . In other words, as Jayakar and Waterman pointed out, $R_A > R_B$ implies $I_i > I_j$, $N_A > N_B$, $S_{iA} > S_{jA}$, and $S_{iB} > S_{jB}$, for all i and j .

Although Wildman and Siwek's equilibrium conditions are somewhat rigid in the assumption of equal discount factors and invariant elasticity of demand with respect to production investment, their model indicates that, due to economies of scale in distributing movie products, a given producer's marginal spending of additional money on movie production rises with the size of that producer's potential market. Since film producers in a country that has relatively high consumer spending on movies have larger potential markets than producers in countries with relatively low consumption of movies, the filmmakers in the country with higher spending will have an incentive to create high budget films which will appeal to both domestic and international audiences.

Another industry-specific economic model was presented by Waterman (1993), but the basic logic of this model is similar to that of Wildman and Siwek.

The logic of these home market economic models is that the producers in countries with larger domestic markets will produce not only more movies, but also more expensive movies, and thus will tend to dominate the movie trade. It

follows that R_A/R_B should be positively correlated with $\Sigma_i R_A S_{iA} / \Sigma_j R_A S_{jA}$ and $\Sigma_i R_B S_{iB} / \Sigma_j R_B S_{jB}$ (Waterman and Lee, 2001, 2002).

Lee (2002) employed seven basic statistical models for testing the effects of the changes in R_A/R_B on S_{iA} / S_{jA} and S_{iB} / S_{jB} over time in Japan. The results using information from a database (1955-2000) of media industry development in the United States and Japan generally supported the home market economic model. The results show that there is an evident correspondence between the box-office market share and consumer movie spending. That is, the decrease of domestic films' box-office market shares in Japan is explained by the fact that the ratio of Japan's movie spending to the United States has decreased since the early 1960s. The dominance of U. S. films in Japan can be explained by the fact that the United States has developed its domestic movie infrastructures at a more rapid rate than has Japan.

The present study develops Lee's (2002) study by relating the long run changes to the diffusion of movie support media in Japan and the United States. This study confirms how the development of the movie support media is related to domestic movies' market share in Japan.

V. Empirical Analysis

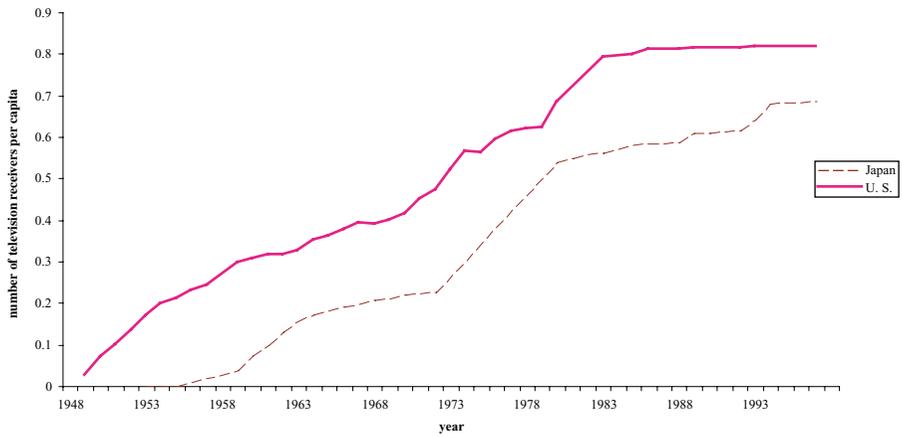
In order to relate the diffusion and development of movie media in the U.S. and Japan since the 1950s, this study considers the theater market, then the diffusion of cable television, satellite television, pay television and home video systems.

Box-office Admissions and Broadcast Television Subscriptions

The relatively high box-office spending in Japan up to the early 1960s is probably explained by the effect of the diffusion of broadcast television (Figure 3). Television receivers diffused more rapidly in the United States than in Japan, causing an earlier and more rapid decline in U. S. theater admissions. However, while theater admissions in the United States began to steady or increase slightly after 1970s, theater admission in Japan continued to decrease as television diffusion increased (Figure 4).

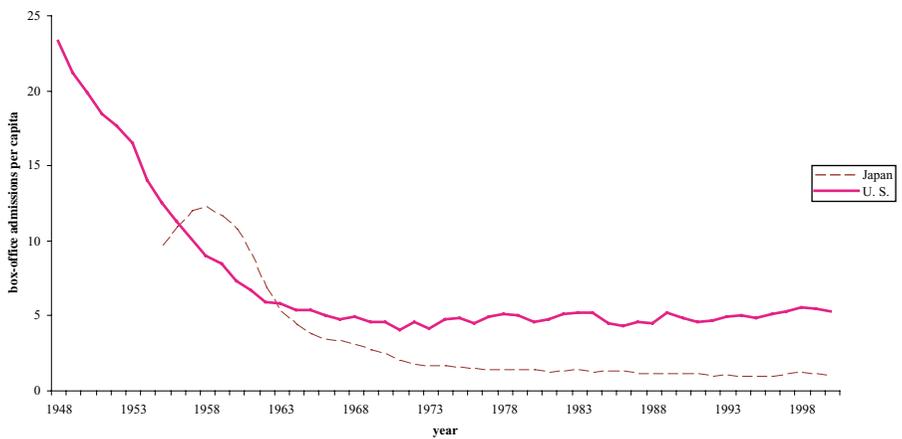
These historical data are consistent with the home market economic model. That is, there had been the post-World War II peak of Japanese film industry competitiveness with American films within Japan before television substantially diminished the domestic resource base of Japanese film producers. Figure 5 shows the relationship between Japan's annual box-office admissions and the number of NHK television service contracts.

Figure 3 Television Receivers per Capita in Japan and the United States 1948-1997



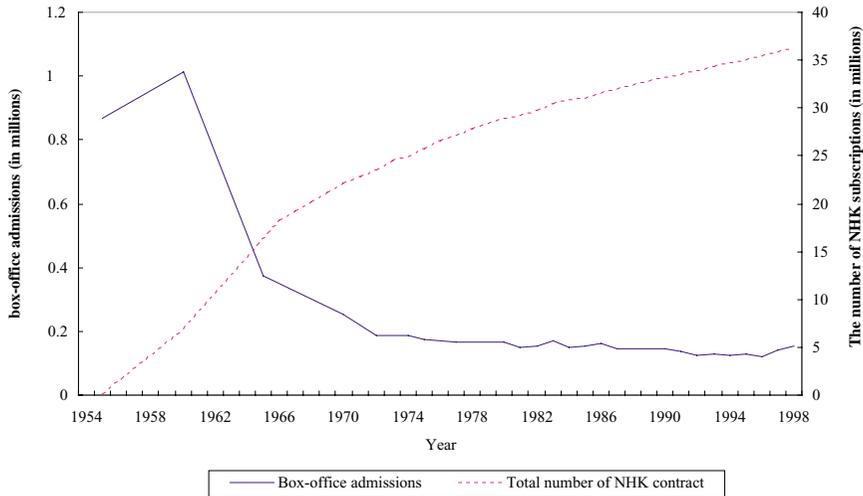
Sources: UNESCO Statistical Yearbook

Figure 4 Box-office Admissions per Capita in Japan and the United States 1948-2000



Sources: Kinema Jumbo and International Motion Picture Almanac

Figure 5 Relationship between Box-office Admissions and the Number of NHK Subscriptions in Japan 1954-1998



Sources: Kinema Jumbo, NHK Nenkan (NHK Yearbook), and NHK (1967).

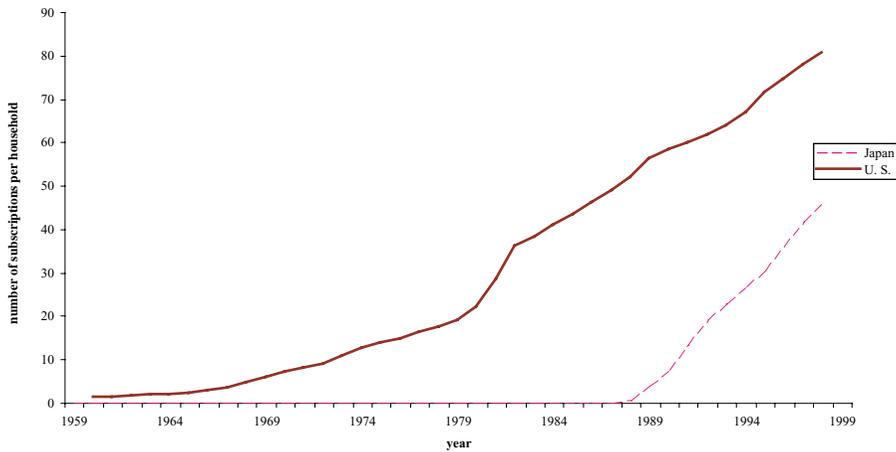
In the case of Japan, every person who owns a television receiver has to pay for his or her subscription to the NHK channel. Figure 5 indicates that as television subscriptions increased, box-office admissions decreased rapidly after the early 1960s. The stagnation of Japan's movie industry since the introduction of television might be related to a decrease in the number of movie admissions and also to a decrease in domestic films' market share.

Cable Television, Satellite Television and Pay Television

The period of declining Japanese box-office market share after the 1960s corresponds to a rapid diffusion of cable television, satellite television, and pay television in the United States. The introduction of total multi-channel video services, such as cable television and Direct To Home (DTH) services, and pay television increased theatrical film distributors' revenues significantly in the United States. As Figure 6 shows, the number of households with total multi-channel services in Japan was extremely small compared to that of the United States until the late 1980s. Although cable television service was introduced in Japan in the 1960s, the number of multi-channel cable television subscribers was fairly small until the late 1980s. Over 90 percent of Japanese cable television systems are designed for re-transmission of over-the-air TV broadcast programs for communities who cannot receive TV signals because of terrain or

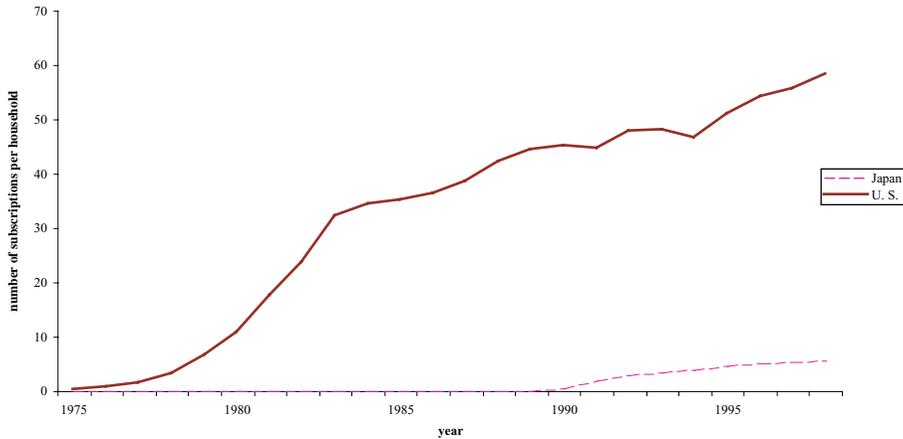
interference from buildings and other obstacles. Accordingly, when we compare Japanese cable television systems with those of other countries, we should use statistics on Japan's multi-channel 'urban-type' cable systems, which are defined as systems that have 10,000 or more drop line terminals, and more than 5 channels for programs other than re-transmission. The total number of 'urban type' cable subscribers was 7.9 million in 1998, which was only 13 % of the penetration rate (NHK Broadcasting Culture Research Institute, 2000). In particular, pay television is a substantial revenue source for movie distributors in the United States because it can support film producers directly, but in Japan, pay television was not introduced until the early 1990s (See Figure 7).

Figure 6 Number of Total Multi-channel Video Subscriptions per Household in Japan and the United States 1959-1999



Sources: Jouhou Media Hakusyo, national media organization and Paul Kagan Associates

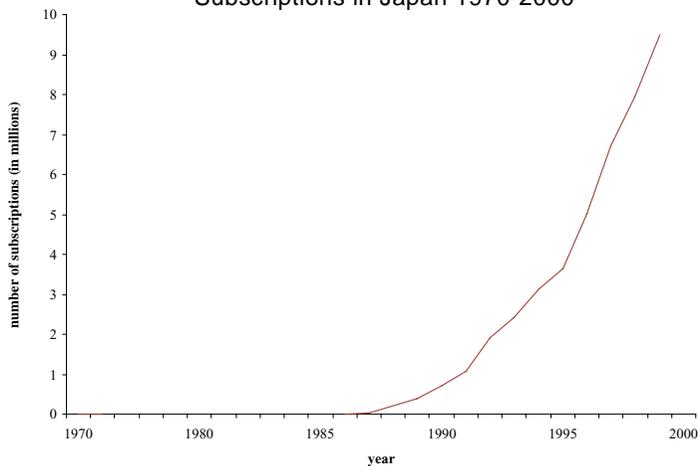
Figure 7 Number of Pay TV Subscriptions per Household in Japan and the United States 1975-1999



Sources: WOWOW and Paul Kagan Associates

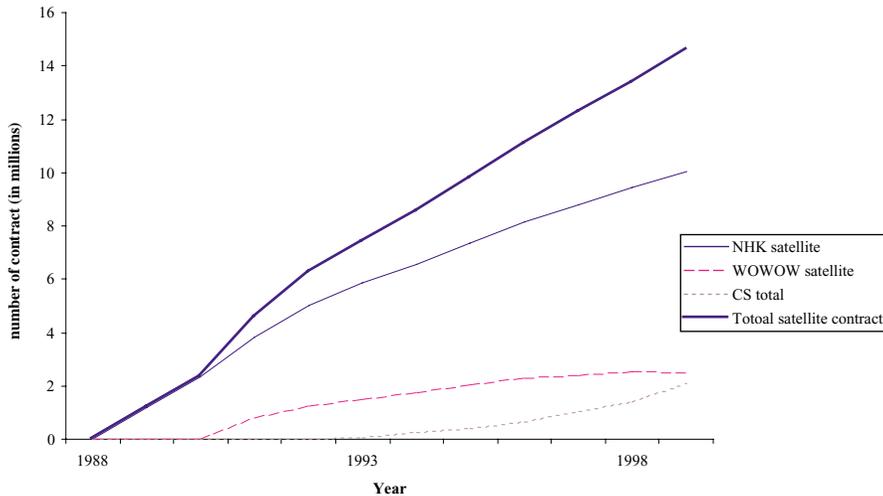
However, the recent increase of ‘urban type’ cable subscription and the development of satellite television are remarkable. As the Figure 8 shows, the number of subscribers to urban cable TV in Japan has grown substantially since the 1990s. Such an increase of cable television subscription may provide a substantive revenue source to movie distributors. The number of subscribers in Japan’s satellite services has increased steadily (Figure 9). The introduction of multi-channel digital satellite services in 1996 should also be a good revenue source for theatrical film distributors in Japan because such services provide many pay-television channels and PPV channels to customers.

Figure 8 Number of "Urban Type" Cable Television Subscriptions in Japan 1970-2000



Sources: Jouhou Media Hakusyo and NHK Broadcasting Culture and Research Institute

Figure 9 Number of Satellite Television Subscriptions in Japan 1988-1999



Sources: Jouhou Media Hakusyo and NHK Broadcasting Culture and Research Institute

Home Video

VCRs diffused rapidly in both the United States and Japan beginning about the 1980s (Figure 10). However, per capita consumer spending for prerecorded video rentals and sales in Japan has been lower than consumer spending in the United States since the late 1980s (Figure 11).

In summary, since the 1970s American dominance in the Japanese film industry has been related to America's relative lead over Japan in the movie support media in its home market. If this is the case, then why have movie theater markets, home video, pay TV, cable television, and satellite television developed more rapidly in the United States than in Japan from the 1970s?

One of the reasons for the slower diffusion of movie support media in Japan can be attributed to misdirected government protection and other media policies. The overall American lead in consumer spending on these media can perhaps be attributed to more freedom from government regulation. In other words, it is possible that government regulation and other media policies in the United States led to an environment more amenable to the development of new media. Thus, this study investigates how the Japanese government's media policy deterred the development of movie support media in Japan.

Figure 10 Number of VCR Households per Total Households in Japan and the United States 1976-1998

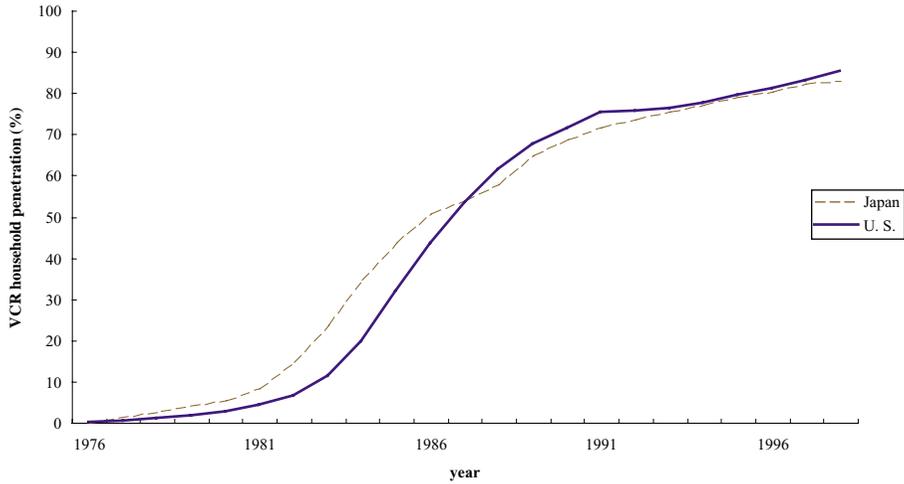
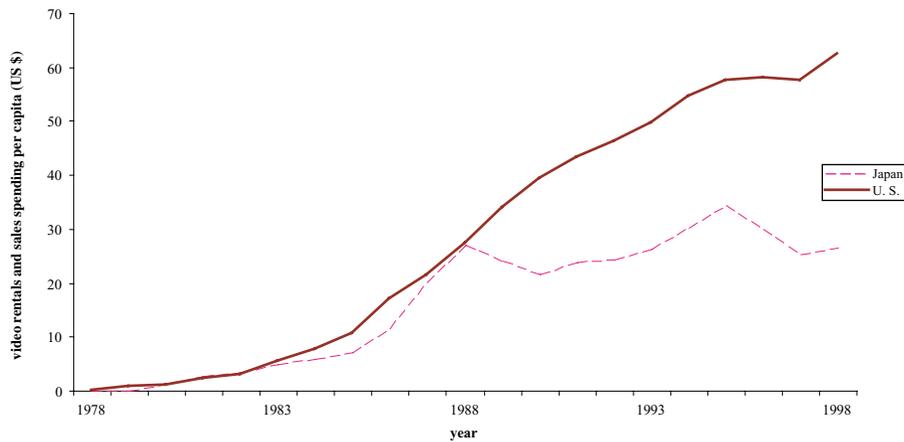


Figure 11 Per Capita Spending on Videocassettes (Rentals and Sales) in Japan and the United States 1978-1998



Sources: Jouhou Media Hakusyo and Paul Kagan Associates (1999a)

Government Policies and Media Diffusion

Broadcast Television

As for “free” broadcast television, Waterman and Jayakar (2000) and Waterman and Lee (2001) reported that the major problem with broadcast television was the fact that “free” broadcast television was an inefficient means to support theatrical film production. Because of low license fees for broadcast television and advertisers’ unwillingness to pay more than a few cents per viewer to tout their products to audiences, film distributors consider free broadcast television a low value medium (Waterman & Lee, 2001).

However, broadcast television played a major role in the exhibition and financial support of theatrical feature films in major European countries, including France, Germany, and Italy. For example, the quota requirement of the Television Without Frontiers directive has provided a consistent and legislative demand for theatrical films. Broadcast television has provided a major source of funding to film industries directly through television’s investment in film. Television companies also supported film businesses indirectly through taxes on television broadcasters that are later distributed to film in the form of subsidies. This indicates that the European film industry has depended on broadcast television for both demand and funding.

Japan is similar to European countries in the sense that broadcast television has been highly involved in theatrical film production. Although film producers’ dependence on broadcast television in Japan is much less than that in European countries, broadcast television’s involvement in the financing of theatrical feature films was reported to be extensive in Japan. According to the Japanese motion picture producers association, the 1997 Japanese film distributors’ revenues from windowing consist of 35% from theater distribution, 50% from video distribution, and 15% from television (Lee, 1998)¹ (Table 1). Since pay TV still earned very minor revenues in Japan by that date, the 15% is probably almost all from free broadcast sources. On the other hand, in 1997, American film distributors earned 25% of total revenues from theaters, 55% from video, 13% from pay TV and 7% from broadcast television (Paul Kagan Associates, 1999b). The positions of free television and the pay media are reversed in the U. S. and Japan. Pay television, which is a more efficient medium for direct movie support, plays an important role in US movie producers, but a very minor role in Japan, and vice versa for free television.

Table 1 Sources of Revenue for Theatrical Film Distributors, 1997

	Japan	United States
Theater	35%	25%
Video	50%	55%
Pay TV	15%	13%
Broadcast TV		7%

Sources: Paul Kagan Associates (1999a).

Since the late 1970s, Japanese broadcasting stations began to participate in film production and many Japanese films were produced or co-produced by broadcast stations. For example, in 1999, Japanese broadcasting stations participated in the production of 20 movies. 13 of those were ranked top 20 in film distribution revenues. This means that the Japanese broadcasting television companies are far more involved in movie production than American broadcasting television companies are.

However, broadcast television's involvement in film production may not be good for the theatrical film industries. Many movies produced by broadcast television stations are based on popular television dramas. The problem is that television drama is made for small screen audiences and its content is local. Although these television dramas were transformed into movies, these movies may not compete with Hollywood movies, which were oriented for big screen audiences. In other words, television drama content, which can satisfy television audiences, may not appeal to cinema-going audiences because television content may be a lower level of creative work and may be local, while cinema content should require a high level of creative and technical work and should be focused on global performance. The high involvement of broadcasting television and the low involvement of major studios in movie production could thus lead to decrease of competitiveness and expertise of Japanese movie industry.

In summary, although television broadcasters have been involved in film production in both European countries and Japan, Europe's and Japan's local movies have not become popular with audiences. Rather, local films' market shares have decreased since the 1970s, whereas American films continued to dominate most European and Japanese screens. This means that the major film funding should not come from television broadcasters, but from investors who have the assurance that a film will succeed in theatrical exhibition. The demand for movies will not come from the quota system, but from audiences.

Government Regulation of Cable television, Pay television and Satellite television

In the case of Japan, government's heavy regulation and the political influence of the established terrestrial broadcast television companies also may be related to the slower diffusion of movie support media as mentioned above.

According to Yamazaki (1994), the low degree of penetration of the Japanese cable television network was a result of severe regulation by the MPT. First, the government restricted the number of channels on cable television. Second, the foreign equity ownership of communication satellite broadcast stations and cable TV stations was limited to 20 percent. Third, cable operators were not allowed to provide telecommunications services. Fourth, only local companies were allowed to provide cable television services within the local area, and there were no multiple system operators in Japan.

Besides these government regulations, there were also many obstacles by various government agencies and utility companies in Japan. For example, Kahaner (1996)'s report concluded that cable companies should be permitted by several government entities to lay cable along railways, cross bridges, rent utility pole, dig roads, etc. In some cases, cable operators pay more money for poles than for programs. Obviously, such regulations pushed up construction costs. As a result, Japanese cable system operators had to charge high fees to their users, which might have depressed demand for cable systems.

Another reason for the slower development of cable television in Japan was the resistance from established broadcasters. In the 1960s, Japanese cable television emerged to extend television station coverage by re-transmitting signals to local areas. That is, cable television systems were designed for re-transmission of over-the-air TV broadcast programs for communities unable to receive TV signals because of terrain or interference from buildings and other obstacles. However, broadcast television stations viewed cable television services as a dangerous predator. In particular, local broadcast television stations were concerned about importing "distant" signals because cable television's duplication of their own programs in their viewing areas could divide their audience. Persuaded by broadcasters' pressure on government for protective action, the Ministry of Posts and Telecommunication (MPT) imposed restrictions on cable television systems' re-transmission of "distant" signals and permitted cable systems to carry only local television stations. Thus, Japanese cable television services were used merely to re-transmit local broadcast programs for "white" areas. Although in the United States, the same forces of resistance from broadcasters were encountered, cable television services continued to expand because of cable deregulation and development of domestic satellite network services.² However, it was not until 1986 that Japanese cable television provided more than 5 channels for programs other than those for re-transmission. This indicates that resistance from the established media was more serious and consistent

in Japan than in the United States, causing a slower diffusion of multi-channel cable television in Japan.

Nippon Hoso Kyokai (NHK), Japan's public broadcast network, also has involved in satellite television services in Japan. Thus, it was not easy for other DBS services to survive in Japan, where NHK has provided a parallel system of satellite services.

Japan's direct broadcast satellite (DBS) service was started by NHK on a trial basis in 1984. After a five-year test period, the full-scale DBS service started in June, 1989.³ Although NHK's satellite broadcasting was aimed to improve the reception of terrestrial services, it is providing various programs, such as worldwide news, sports, entertainment and cultural programs. The NHK satellite service depends on license fees. Since it costs little to add satellite as well as terrestrial broadcasting services, NHK could increase its satellite subscriber numbers easily. In summary, NHK's involvement in satellite television services may have deterred other satellite television services from developing in Japan.

Protected by the government, the established terrestrial broadcast networks, such as NHK, have dominated Japan's media markets. Table 2 shows a comparison of media markets in Japan and those in the United States, indicating how NHK and other terrestrial broadcast television companies are dominating the Japanese media markets. As Table 2 shows, more than 90% of total media revenues in Japan were derived from broadcast television services, whereas cable television and satellite television services took less than 10% of total revenues. This indicates that broadcast television plays a dominant role in Japan's media market. On the other hand, broadcast television has been much less dominant in the United States than in Japan. In the United States, broadcast television constituted 54% of total media revenues, while basic cable television got 28% of total media revenues. In particular, the combined proportion of premium pay television and PPV was 12%, which is higher than that in Japan.

Table 2 Proportion of Revenue from Media in Japan and the United States, 1999

	Japan	United States
Broadcast TV	92%	54%
Pay TV	2%	12%
Cable TV	5%	28%
Satellite TV	1%	6%
Total	100%	100%

Sources: NHK Broadcasting Culture and Research Institute (2000); Veronis, Suhler & Associates Communications Industry Forecast (2000).

With its powerful resources, NHK has provided a lot of high quality programs in various genres, including feature films. Thus, Japanese people may not have enough incentive to spend extra money subscribing to cable or satellite television. Furthermore, cable and satellite television suffered from a lack of attractive programs because NHK had powerful resources, which enabled it to buy many of the good programs in all genres. Thus, Japanese consumers seem to see cable television as expensive and as not having the kind of attractive programming that NHK provides (Kahaner, 1996). As a result, Japan's cable TV operators argue that NHK has unfair advantages in the television business in comparison with cable or satellite television providers, including non-taxable resources of about \$5 billion, the control of too many channels, and the ability to obtain the best programs (Kahaner, 1996).

Furthermore, NHK services are mandatory pay services for all Japanese homes with televisions, and such a situation may lead to the hindrance of pay television, cable television, and satellite channels.

Video Piracy

Differences in the effectiveness of government enforcement of piracy laws have been more favorable to the commercial development of the American video market than in Japan.

Of all videos on the market in Japan, about 20 percent were pirated in 1998, down from an estimated 80 percent in 1986 (Adelson, 1988). The Motion Picture Association of America (MPAA) reported that the proportion of video tapes that were pirated was put at about 10% in America and 40% in Japan ("Video piracy," 1987).

Although video piracy rates have improved in Japan over time, they have remained lower in the United States. Apparently, the lack of enforcement of piracy laws in Japan may be related to the reduced distributor revenues from movies on video.

Conclusion

I have attempted to explain growing American dominance of the Japanese film industry from an economic perspective. This study finds that trends in the box-office market shares of American and Japanese films in Japan are correlated with long-term shifts in production resources, which are generated by total consumer spending on theater tickets, pay television subscriptions, multi-channel television, and videocassette rentals and sales. The competitiveness of American films has been magnified by rapidly expanding markets for American movies worldwide, which provide even larger economic resources to film productions. However, Japanese film producers were not supported by pay television,

home video, cable television, and satellite television until the early 1990s. Furthermore, film export revenue from foreign countries was much smaller in Japan than in the United States.

This study also has examined the reasons for the slower development of movie support media in Japan. The government's heavy regulations on cable television, such as the ban on a certain percentage of foreign movies, foreign investment, and multiple system operators, are probably related to the slow diffusion of cable television and pay television in Japan. American film producers also have benefited from the government's effective piracy enforcement. However, video piracy rates in Japan were high in the early days of video distribution because of less effective government policies on copyright. Finally, the relatively slower diffusion of movie exhibition media in Japan may be related to the political influence and powerful programs of established terrestrial broadcasters.

I have argued that a greater freedom from government regulation may have contributed to the American lead in consumer spending on such media. The government legislation in Japan may well lead to an artificial shrinking of commercially available markets. The result is that the various forms of government protection and regulation in the movie industries in Japan have not come close to matching the resources available to film companies in the marketplace in the United States.

However, several recent changes in the media industries in Japan are encouraging the future of the film industries in these two countries. The recent deregulation of cable television services⁴, for instance, the abolishment of government restrictions on the number of channels that cable television operators could have, and the increase of foreign equity ownership of cable television stations, may help develop pay television and cable television services in Japan. Also, the substantial increase in the number of "urban cable" television services is probably related to the deregulation of the cable television industry. In addition, the introduction of digital multi-channel services in satellite television in the late 1990s is likely to provide a good source of revenue to domestic film production in the future. It is true that local movies' box-office share decreased in Japan in the 1990s, but that may have been due to the fact that rebuilding a commercially viable movie industry takes time.

NOTES

- 1 The proportion of television includes both broadcast television and pay television. However, the proportion of pay television is minimal because Japanese pay-TV subscription has been very low.
- 2 By the mid 1960s, community antenna television (CATV) continued to expand in the United States. Broadcasters, who feared that CATV systems' distant television signals would fragment their local audiences, turned to government for protection. In the 1960s, the FCC imposed two conditions on cable television operators. First, the CATV system must carry all local broadcast signals. Second, a CATV system could not carry the programs of a distant station when these programs duplicated those of local stations during a period of 15 days before or after the local broadcast (see Rules re Microwave-Served CATV, 38 FCC 683 (1965)). However, the widespread effort to deregulate the communication industries began in the 1970s. The FCC stopped protecting broadcasters from cable and encouraged competition. Furthermore, beginning in the 1970s, satellite services, such as cable superstations and networks, provided cable systems with an increasingly wide choice of national programming.
- 3 There are two types of direct satellite broadcasting in Japan: BS uses a broadcasting satellite and is called DBS-TV, while CS uses a communication satellite, and is called CS-TV. NHK's satellite service is BS.
- 4 In late 1993, the MPT drastically deregulated cable television services. It permitted a single company to operate multiple cable systems, permitted cable companies to offer telephone service, and increased the maximum allowable for foreign ownership of cable systems from 20% to 33%.

REFERENCES

- ADELSON Andrea (1988). Entertainment Industry Adds Anti-piracy tricks. *The NEW YORK TIMES* November 21: 8.
- COLLINS Richard (1994). Trading in Culture: The Role of Language. *Canadian Journal of Communication*, 19, 377-399.
- DUPAGNE Michel & WATERMAN David (1998). Determinants of U.S. Television Fiction Imports in Western Europe. *Journal of Broadcasting & Electronic Media*, 42(2), 208-220.
- HOSKINS Colin & MIRUS Rolf (1988). Reasons for the US dominance of the international trade in television programmes. *Media, Culture and Society*, 10, 499-515.
- International Motion Picture Almanac*. (2000). NY: Quigley Publishing Company Inc.
- JAYAKAR Krishna & WATERMAN David (2000). The economics of American movie exports; An empirical analysis. *Journal of media economics*, 13(3), 153-169.
- Jouhou Media Hakusyo (Information Media Whitebook)*, annual. Tokyo: Dentsu Institute.
- KAHANER David (1996). ATIP96.103: Japan's emerging cable TV industry. *Asian Technology Information Program (ATIP)*. Retrieved from <http://www.atip.or.jp/public/atip.reports.96/atip96.103.html>.
- Kinema Jumbo, Kinejun: Motion Picture Times*, monthly. Tokyo; Kinema Jumbo Sha.
- LEE, C. et al. (1998). *A Study on the Current Status and Development of Film Distribution System*. Seoul, Korea: Korean Cultural Policy Institute.
- LEE Sang-Woo (2002). An economic analysis of the movie industry in Japan. *The Journal of Media Economics*, 15(2),125-139.
- NHK. (1967). *The History of Broadcasting in Japan*. Tokyo: Nippon Hoso Kyokai.
- NHK Broadcasting Culture Research Institute (1997). *Japanese broadcasting data*. Retrieved from <http://www.bunkendb.ne.jp/BCRI-data/h01-d1.html/>
- NHK Broadcasting Culture Research Institute (2000). *Japanese broadcasting data*. Retrieved from <http://www.bunkendb.ne.jp/BCRI-data/h12-d1.html>
- NHK Broadcasting Culture Research Institute (2001). *Japanese broadcasting data*. Retrieved from <http://www.bunkendb.ne.jp/BCRI-news/bnl-s-data.html/>

- NHK Nenkan (NHK Yearbook), annual.
- OH Jeongho (2001). International trade in film and the self-sufficiency ratio. *The Journal of Media Economics*. 14(1), 31-44.
- OWEN Bruce (1975). *Economics and freedom of expression: Media structure and the First Amendment*. Cambridge, MA: Ballinger.
- Paul Kagan Associates. (1991). *Pay-TV newsletter*, January 31: 3.
- Paul Kagan Associates. (1993). *Kagan Media Index*, June 23: 12-13.
- Paul Kagan Associates. (1996). U. S. consumer entertainment spending patterns. *The Kagan Media Index*. January 31: 3.
- Paul Kagan Associates. (1997). *Kagan Media Index*, June 30: 14.
- Paul Kagan Associates. (1999a). *Kagan's state of home video 2000*. Carmel, CA: Paul Kagan Associates.
- Paul Kagan Associates. (1999b). *Cable program investor*, July 14: 3-4.
- POOL Ithiel de Sola (1977). The changing flow of television. *Journal of Communication*, 27(2), 139-149.
- ROGERS Everett & Antola, L. (1985, Autumn). Telenovelas: A Latin American success story. *Journal of Communication*, 24-35.
- ROSSE James, DERTOUZOS James, & WILDMAN Steven (1978). *Economic issues in mass communication industries*. Washington, DC: Federal Trade Commission.
- Screen Digest*, monthly, London: Author.
- STRAUBHAAR Joseph (1991). Beyond Media Imperialism: Asymmetrical Interdependence and Cultural Proximity. *Critical Studies in Mass Communication*, 8, 39-59.
- TRACEY Michael (1985). The poisoned chalice? International television and the idea of dominance. *Daedalus*, 114, 17-56.
- UNESCO *Statistical Yearbook*, annual. Paris: UNESCO
- Video piracy; Jolly Rogers flying high Business (1987). *World Business*. October 31: 65.
- Veronis, Suhler & Associates *Communications Industry Forecast (2000)*. New York, N.Y.: Veronis, Suhler & Associates.
- WATERMAN David (1988). World television trade, The economic effects of privatization and new technology. *Telecommunication Policy*, 12(2), 141-151.

- WATERMAN David (1993). "World Television Trade: The Economic Effects of Privatization and New Technology". In NOAM Eli & MILLONZI Joel (Eds.), *The International Market in Film and Television Programs*. Norwood, NJ: Ablex. 59-82.
- WATERMAN David & JAYAKAR Krishna (2000). The competitive balance of the Italian and American film industries. *European Journal of Communication*, 15(4), 501-528.
- WATERMAN David & LEE Sang-Woo (2001). "The international market: media development and the rising tide of American dominance, Chapter 5". In Waterman David, *Hollywood and Economics* (book in progress).
- WATERMAN David & LEE Sang-Woo (2002). Theatrical feature film trade and media policies in the United States, Europe and Japan since the 1950s. Paper presented to International Communication Association conference, 2002.
- WATERMAN David & ROGERS Everett (1994). The economics of television program production and trade in Far East Asia. *Journal of Communication*, 44(3). 89-111
- WILDMAN Steven & SIWEK Stephen (1988). *International trade in films and television programs*. Cambridge, MA: Ballinger.
- WILDMAN Steven & SIWEK Stephen (1993). "The economics of trade in recorded media products in a multilingual world: Implications for national media policies". In NOAM Eli & MILLONZI Joel(Eds.), *The International Market in Film and Television Programs*. Norwood, NJ: Ablex. 13-40.
- WOWOW Japan Satellite Broadcasting Inc (2000). *Sales volume*. Retrieved August 23, 2000 from http://www.wowow.co.jp/info/info_e/databox.html.
- YAMAZAKI, T. (1994). Cable TV madness. *Tokyo Business Today*, November: 6.