ASSET SPECIFICITY AND LONG-TERM CONTRACTS:

THE CASE OF THE MOTION-PICTURES INDUSTRY

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In the old days the studios ruled Hollywood.
Today the town belongs to the stars.
Peter Bart, The New York Times, 1966.

INTRODUCTION

Mr. Bart's commentary on the U. S. motion-pictures industry raises an intriguing question for economists regarding the historical nature of contractual agreements between film actors and studios. Why did the governance structure change from long-term contracts during the Age of the Studio (1929-48) to market exchange during the most recent era? The answer lies in an examination of historical factors which led to a high degree of relationship-specific investment during the Age of the Studio and to a significantly lower degree of asset specificity in the ensuing era of Free Agency.

During the early days of the motion-pictures industry, and especially by the start of the Age of the Studio in 1929, the predominant contractual relationship between an actor and a studio was long term, in some cases lasting seven years. An actor became part of an actors pool for a studio, from which the studio could draw when casting its films, precluding work by an actor for several studios at one time on a per-film basis. Compensation generally was by salary rather than per-film [Farnett, 1988, 92 and 35-37].[1] On a rare occasion, an actor would receive a profit-sharing agreement [Balio, 1987, 12; Wert, 1987, 169].[2] Even in such a case, however, the actor and studio still entered into an exclusive long-term employment relationship.

This proliferation of long-term contracts can be explained by the significant degree of relationship-specific investment between the actors and the studios. This significance of asset specificity is related to four industrial characteristics during 1929-48: the high degree of both industrial concentration and vertical integration of production, distribution and exhibition; the star system; the *U. S. v. Paramount* case; and the ascending popularity of television. The second section presents a model of relationship-specific investment and places it within the context of recent developments in the transaction-cost literature. The third section applies the model to the U. S. motion-pictures industry. Concluding remarks follow.

A MODEL OF RELATIONSHIP-SPECIFIC INVESTMENT

Since Coase's [1960] seminal article, much attention has been devoted to defining transaction costs and examining their relevance in contract formulation.[3] Williamson [1979] formalized the transaction-cost framework by identifying three critical aspects of transactions: uncertainty, the frequency with which transactions occur, and the degree to which durable transaction-specific investments are incurred.[4] He then related combinations of frequencies and degrees of specific investment to optimal governance structures. The central result was that, *ceteris paribus*, as the degree of asset specificity increases, the optimal governance structure moves along a continuum from spot-market exchange, through bilateral governance (i.e., short-term and then long-term contracts), on to unified governance, or vertical integration.

Asset Specificity Defined

The rationale for Williamson's [1979] argument is based, in part, on the nature of idiosyncratic exchange relationships. If both a buyer and a seller contemplate a transaction which requires investments that are unique to that particular exchange relationship, then the two parties are locked into a bilateral monopoly structure. Once this investment is made by both parties, either or both parties might engage in opportunistic behavior.

The power to act opportunistically or to create a "hold-up" problem derives from the sunk cost nature of the investments made by the parties; the salvage values outside of the exchange relationship of the investments are low or essentially zero [Klein, Crawford and Alchian, 1978; Crawford, 1990].[5] The seller then may negotiate, *ex post*, a high price and capture quasi rents from the buyer; the buyer's *ex post* gains from trade are less than the cost of the relationship-specific investment. As the degree of asset specificity increases, the ability of the seller to negotiate a higher price *ex post* and to thereby capture greater quasi rents increases. Thus, the incentives to protect against *ex post* opportunism likewise increase. Bilateral and unified governance structures become more desirable since they encourage both parties to make credible commitments to refrain from engaging in opportunistic behavior.

In order to operationalize the analysis of asset specificity, four sources of asset specificity have been identified:[6] site specificity, physical asset specificity, dedicated assets, and human asset specificity. Site specificity pertains to the decision of the buyer and the seller to locate their operations within physical proximity of each other. Physical asset specificity regards investments in equipment with low value outside of the transaction relationship. Dedicated assets refer to general investments by the seller which are made with the expectation of a considerable amount of trade with one particular buyer.[7] Human asset specificity addresses the specialization of skills which arises from learning-by-doing. Joskow [1987] acknowledges that

these four categories point to essentially the same phenomenon, but that it is instructive in empirical analyses to treat each category distinctly.

Asset Specificity Applied

During the Age of the Studio, the contractual relationship between an actor and a studio involved a significant degree of relationship-specific investment, particularly in the form of dedicated assets, physical asset specificity, and human asset specificity. The sources of this specificity are discussed at length in the following section. For the moment, consider the following straightforward representation of the incentives facing an actor and a studio as they each contemplate the prospect of sunk-cost investments.[8]

Consider a buyer and a seller of acting services, a studio and an actor, respectively. Assume a two-period model. In order to gain from trading with the actor, the studio must invest in an asset unique to the actor-studio relationship, incurring a sunk cost of a made in period 1. In period 2, the actor provides his services at a cost, c, and the benefits from trade are realized. Benefits are related to the degree of investment by the studio according to the benefits function, $b(a)$.

Suppose the actor and the studio do not sign a long-term contract in period 1. If by period 2, neither party faces alternative outlets for trade, then the surplus from the trade is $b(a) - c$.[9] Assuming the Nash bargaining solution, the surplus is divided equally among the two parties. Accordingly, the price for the services provided by the actor satisfies $b(a) - p = p - c$. The studio's payoff less the cost of its sunk investment then is

$$b(a) - p - a = [b(a) - c]/2 - a. \tag{1}$$

The studio maximizes its net benefits over a, or, it maximizes $1/2b(a) - a$.

Alternatively, the efficient outcome of this transaction would follow if the two parties jointly maximized the total surplus of $b(a) - c - a$. The maximization of equation (1) will lead to underinvestment. The source of this inefficiency derives from the bargaining that would have taken place in period 2, and the potential appropriability of surplus, against which each party must implicitly guard himself. The efficient outcome can be effected by a long-term contract, signed in period 1, which states the price, p', for the actor's service that ensures the efficient outcome.[10] The studio then maximizes the total surplus with respect to its own level of specific investment, a. The *ex post* bargaining problem of the inefficient solution is remedied by the long-term commitment by both parties. The threat of opportunism is minimized. The particular sources of asset specificity between actors and studios are addressed following a brief history of industrial developments during the early days of the motion-pictures industry.

HISTORICAL CHANGE AND OPTIMAL CONTRACT DESIGN

Industry History

The early days of the film industry were characterized by a wave of studio mergers and a trend towards an increasing degree of vertical integration. By the late 1920s, seven studios dominated the industry, which were more vertically integrated than previous studios. Fox Studio, for example, acquired Loew's Inc. in the late 1920s for $50 million. The studio then integrated vertically by buying out a circuit of theaters in New England. Fox merged yet again with Twentieth-Century, to be run by Joseph M. Schenck and Darryl F. Zanuck. Similarly, B. F. Keith and Orpheum Circuits merged with RCA to form Radio-Keith-Orpheum (RKO), which in turn bought out Film Booking Offices of America (F.B.O.) and Pathé. By the 1930s, RKO undertook production, distribution, and exhibition of films.

Although the story of Paramount developed differently than Twentieth-Century Fox and RKO, the result was the same by the 1930s. Before merging, William W. Hodkinson participated in independent film exchanges, while Adolph Zukor exhibited films. In 1913, they decided that they wanted to guarantee themselves a steady flow of films. Hodkinson preferred to stay in distribution, but Zukor pushed to merge and expand into film production. In the end, Zukor won, and their newly-formed Paramount was indeed as vertically integrated as RKO, with "a gigantic chain of motion-pictures theaters" as well as prolific film production and distribution. Like Paramount, the early days of Warner Brothers Studio were devoted to exhibition, then distribution, and finally film production by 1913. In 1925, Warner Brothers bought out Vitagraph Inc. and thereby not only acquired a studio, but additionally controlled 34 more film exchanges in the United States and Canada.[11]

One factor leading to the trend towards concentration was the introduction and consumer acceptance of "talkies" in the late 1920s. In response to this innovation and its high fixed cost of production, small independent producers were driven out of business or bought out by larger studios [Mordden, 1988]. Warner Brothers survived the introduction of this new technology by accepting a $1 million loan from Los Angeles Trust & Savings, and investing in a sound technology produced by Bell Telephone. Warner received a license for this sound-on-disk system at a reasonable price, since the demand for such technology was low at the time. Fox similarly survived the transition to talkies [Fernett, 1988, 247-48]. This technological innovation hit the industry just prior to the Depression, leaving a waning demand for films. Thus the most established studios with the larger capital bases survived the merger wave.

Films as Serials and Remakes

The impact on contract design of the merger wave and the trend towards vertical integration cannot be treated in isolation. One also must consider the characteristics of the final product, the film, and their relationship to the employment contract between the actor and the studio. In particular, the serial nature of films must be addressed along with the resultant typecasting of actors.

Star Promotion. In their earliest form, films did not promote actors as stars. In 1908, movies were produced factory style.

> The cameraman was little more than a janitor of light. He had not art to make but a job to do: catching the action. The performers were mainly unemployed thespians tiding themselves over. [Mordden, 1988, 4-5]

In fact, actors did not receive name credit for their performances in films at this time.

It was not until the following year that the treatment of actors by studios changed. A regular actress for Biograph Studio known to audiences as the "Biograph Girl," was hired just prior to the 1910s by Carl Laemmle at his own studio, the Independent Motion Pictures Company (later Universal Studios). Not only did Laemmle change this performer's publicity name to "The IMP girl," he also publicized her name, Florence Lawrence. It was this recognition of a performer as an individual, unique contributor to the film that was a catalyst to establishing an industry-wide star system.

The contracts that Mary Pickford received served as a transition from those of the "unemployed thespians" to those of the long-term contract stars. From 1913-16, Pickford had a contract with the Famous Players, paying $1,000 per week. Her contract with Paramount, from 1916-18, promised a payment of $2,000 per week plus a share of the profits from her films. In return, Pickford was required to perform in 10 films per year. The trend leading into the 1920s was towards longer contracts and a roster of salaried actors at a studio [Fernett, 1988, 160; Finler, 1988, 270].

By the beginning of the Age of the Studio, studios invested resources in creating stars. One aspect of creating a star was promoting an actor as a particular type or character.

> There is the Dangerous Man, ruthless and romantic. There's the Folk Hero, the Boudoir Dandy. There is the Queen of the Lot, majestically versatile, and the Sweetheart and the Sinful Woman. There are clowns. There are the Prestige People from the stage-or, better, the English stage [Mordden, 1988, 6-7].

The studios had the incentive to create a type for an actor so that audiences would easily recognize the star and his type, and thereby return for future performances. Thus, the studio invested in "promoting careers through the subtle gradation and renewal of type that kept (a star) reassuringly familiar yet refreshingly surprising" [Mordden, 1988, 46]. James Cagney was typecast as a Bum at Warner, while Clark

Gable consistently played the Dangerous Man. At Fox, Will Rogers played the Folk Hero in the early 1930s, while Henry Fonda performed likewise in the late 1930s.

Occasionally, a star was not associated with a type, but was a star all the same. Gary Cooper, for example, was not typed by Paramount due to his versatility as a performer. Warner Brothers, in fact, had trouble typing Bette Davis in her early days as she ran the gamut of roles: "society-flappers, working-class girls, tramps, little sisters" [Mordden, 1988, 50, 241-42, 244, 266]. These cases were exceptions; typecasting dominated in the process of creating stars.

The practice of typecasting individual stars also extended to teams of stars. It was common for two stars to be paired together in a series of films. The films constituting such a series were not necessarily sequels *per se,* but they did tend to involve the pair of actors playing similar characters facing similar situations as in their previous collaborations. In the 1930s at MGM, for example, Clark Gable and Joan Crawford constituted such a star pairing.

> They made eight films together, each a remake of the preceding ones, and they would have made even more if the studio could have figured out something else for them to do besides hurdle social barriers on behalf of romance [Mordden, 1988, 137].

During the following decade and through the mid-1950s, Lou Abbott and Bud Costello were paired in a similar fashion in a dozen films at Universal. The format of their films involved

> (plopping) the boys down in a hostile environment and giving them a bully to confuse, a cliché love plot between routines, and an assortment of extraneous musical numbers [Mordden, 1988, 354-55].

Judy Garland and Mickey Rooney were paid for musicals as were Fred Astaire and Ginger Rogers at RKO. Spencer Tracy and Katharine Hepburn were known for a series of collaborations in the 1940s which was "celebrated for the breezy interlock of their repartee." And Johnny Weismuller and Maureen O'Sullivan performed together in their six Tarzan films at MGM.

Given the merger and vertical integration trends, and the serial nature of film production, how is it that long-term, salaried employment relationships dominated the industry? Consider, first, the fact that during the Age of the Studio, the production of serials was quite common and was supported by consumer demand. Thus, when contemplating a contractual arrangement with a given actor in period 1, both the actor and the studio had the incentive to adopt a long-term agreement. Once the studio invested in training and promoting an actor as a certain type or character, the studio wanted to ensure that the star would remain at the studio to guarantee the stream of income from the repeat appearances of the star/character.

The vertically-integrated nature of the industry was also conducive of star promotion.[12] The studio controlled both the casting of its films at the production stage and ultimately the exhibition of the final product. Thus, when a studio completed a film, it did not incur the market transaction costs associated with securing an exhibition hall for the film. The studio could guarantee itself the exhibition of the star's vehicle (i.e., the film) at a relatively low cost. This, in turn, decreased the uncertainty surrounding the expected income stream from an actor's performances.

The actor, likewise, had an incentive to sign a long-term contract to stay with the studio. The actor gained from the publicity received in the current employment relationship by enhancing future employment opportunities.

How credible was the actor's commitment? Two important questions pertaining to this discussion are: How relationship-specific was the investment of both parties in these long-term agreements, and to what extent were these agreements subject to *ex post* opportunism? If an actor was not only typecast, but also cast in a particular series, the degree of specific investment by both the actor and the producer would be larger. We then would expect *ex post* opportunism to be more likely in the case of a serial, and therefore a longer contract duration would be more likely to emerge.[13]

An Illustrative Example. One might expect that in the case of simple typecasting, an actor's degree of specific investment might not be significant — any studio can use a star who is known as a particular type in its own films. In the Age of the Studio, however, types were not as easily transferable between studios as they are today. Some of the major studios, themselves, were known for particular genres of film. Fox was known in its early days for westerns and outdoor action films [Fernett, 1988, 92]; Universal specialized in monster films and "weepies" or "the woman's picture"; RKO provided audiences with musicals [Mordden, 1988, 310, 342, 350]. Of course, this is not to say that studios were strictly locked into producing these genres of film. The point, however, is that during the Age of the Studio, employment relationships between actors and studios were dominated by a relatively large degree of specific investment, thereby resulting in the optimality of long-term agreements. This result is analogous to that found by Joskow [1987] regarding the duration of coal contracts.

The particular case of the Tarzan series at MGM can be used to illustrate the model of relationship-specific investment. The studio not only waited two years to release the second film, *Tarzan and His Mate* [1934], MGM restrained Weismuller (Tarzan) from playing in any other film during that time. Since he was under contract, he received a salary during his filming hiatus. MGM's rationale was as follows: "It was feared that if the jungle lord materialized in any form other than his unique one, he would compromise his mystery" [Mordden, 1988, 125, 134, 350]. Both MGM and Weismuller had a large degree of specific investment in this employment relationship, and the star, in fact, did stay with the studio for an unusually long, ten-year period (1931-41) [Finler, 1988].

By entering into a contract with MGM, typecast as Tarzan, Weismuller incurred a sunk cost. Once he played the role of Tarzan, part of his fame and perceived revenue-generating ability would be based on Weismuller as Tarzan, not Weismuller as a versatile actor. Before playing Tarzan, Weismuller still faced the opportunity of working for any studio, without the burden of having been typecast. Therefore, in order to induce Weismuller to make the optimal level of specific investment, MGM had to provide him with a guaranteed income, while he waited for the next Tarzan installment.

MGM also incurred a sunk cost of promoting Weismuller as Tarzan. MGM incurred advertising costs that would not necessarily transfer to other actors. Before making such an investment, MGM needed a commitment from Weismuller that he would abstain from other acting jobs, so that Weismuller would always appear as Tarzan in films. MGM also wanted to prevent Weismuller from engaging in *ex post* opportunistic behavior. Even though some of Weismuller's revenue-generating ability would derive from his fame as Tarzan, some of his fame (and rents) could be transferred to other studios. MGM wanted to guarantee that all of the rents flowing from Weismuller's Tarzan performances accrued to MGM.

Weismuller's contract was unusually long in duration. The more-common seven-year arrangement appears to have been gauged to the length of an actor's star appeal. The studios may not have offered stock options, a further progression along the long-term contract continuum for just this reason: such an option would have outlived the duration of rent-generation by the characters for whom Weismuller and other actors were typecast and thus would have involved too long of a commitment for the studio.

The Paramount Case

How did the Supreme Court's *Paramount* decision of 1948 affect optimal contract design? After 10 years of courtroom deliberation, the Supreme Court found that the major studios had violated the Sherman Antitrust Act of 1890 by restraining trade in the motion-pictures industry. The separation of exhibition from production and distribution was mandated [Stanley, 1978]. De Vany and Eckert [1991] discuss the impact of this decree on the motion-pictures industry in great detail. Its particular effect on the degree of asset specificity in the actor/studio contractual relationship is addressed here.

The fact that the major studios no longer controlled film exhibition implied that a given studio no longer had a guarantee that its films would be exhibited. A crucial aspect of promoting a studio's star ultimately rested upon having control over exhibition; if the film was never shown, audiences would not have access to information confirming a performer's ability. It is certainly true that if the demand for a film existed, then an independent film exhibitor would show the film. The point, however, is that it was now more costly for the studios to ensure the exhibition of any given film. Even if the film was marketable, the studio would have to find a willing exhibitor, which involved a search cost not previously incurred. If the film's marketability was marginal, it may have been in the studio's interest to exhibit the film previously, but the new transaction costs may have been high enough to not justify the film's exhibition. With this effective decrease in the studio's control of

marketing the stars, the incentive to partake in a star-promoting relationship was diminished.

Immediately following the *Paramount* decision, the major studios found that

> partly because (they) were no longer required to manufacture a certain number of films every month to keep their theater chains satisfied, they cut back on their film production [Prindle, 1988].

This production cutback was also due to the onslaught of television as an entertainment substitute. The net effect was that the major studios found themselves with insufficient revenues to support their personnel; in particular, they were unable to keep a large number of movie stars on salary [Mordden, 1988, 368]. In 1947, 742 Hollywood performers were under long-term contract, whereas by 1956, this number had dwindled to 229. The production cutback by the major studios, however, was not the only reason for the decline of the long-term contract. As the major studios limited their film production, they found themselves with excess studio space, which could be leased to the most likely renters, independent producers. Thus the revival of independent film production began.[14]

The *Paramount* decision ultimately left the industry more competitive, evinced by the fact that in 1945, there were only 40 independent producers, whereas by 1957, there were 165, and in 1966, there were yet 1500. The decline in the percentage of U. S.-produced films made by the major studios from 80 percent to 35 percent between 1949 and 1958 is further evidence of the trend toward deconcentration [Prindle, 1988, 71-72].

The proliferation of independent producers is one plausible explanation for the decline of the long-term contract. Since the number of independent producers increased dramatically, an actor faced a wider variety of employment opportunities upon completion of a film. The actor, then, no longer had as strong of an incentive to invest in exclusive contracts with one studio. Similarly, the studio, aware of the opportunities facing the actor, chose not to incur the cost of fostering a type or creating a star, knowing that the probability of losing this investment had increased. The films of independents, indeed, were relatively varied with respect to genre and roles for actors.

> With the industry becoming a complex of competing free-lancers instead of an ordered set of feudal baronies, performers discovered work becoming much more individualistic [Prindle, 1988, 72].

The Ascendancy of Television

The commercial introduction of television ultimately enhanced the effects of the *Paramount* decision that led to short-term contracts as the predominant contractual arrangement in the film industry. Consumers perceived a television show as a strong substitute for a movie by 1948 [Stanley, 1978, 127]. As movie boxoffice receipts plummeted, movie studios were forced to re-evaluate the attributes of movies. In particular, film producers had to find a way to distinguish their product from television shows.[15]

Twentieth-Century Fox, for example, endeavored to invest in Cinemascope, which involved "an ultrawide anamorphic lens process." The objective was to provide a dazzling alternative to the mundane, small-scale viewing box. In a similar fashion, an industry-wide wave of blockbuster production was undertaken to create films that were astounding and overwhelming as compared to the limited television fare of situation comedies, variety shows, and kiddie shows. And film producers used color and 3-D photography towards a similar end [Mordden, 1988, 368; Fernett, 1988, 92-93, 144].

Probably the most important change in film genre to accompany the wave of blockbuster production was the tendency of studios to no longer produce serials. Television shows were distinctly serial in nature. Television had a comparative advantage in producing serials, since the marginal cost to a consumer of repeat attendance was lower when the consumer could simply stay at home, as compared to the opportunity costs of repeat attendance at the movie theater. Thus, in order to compete away entertainment dollars from consumers, the studios provided fewer serials.

This trend away from serial film production decreased the degree of specific investment associated with a given agreement between an actor and a producer. Thus, as the product "the film" changed in nature, so too did the characteristics of the employment relationship between the actor and producer. The importance of specific investment is affirmed by the fact that the television industry today, which is involved extensively in the production of serial television shows, is dominated by long-term employment relationships between actors and producers. In particular, it is common for an actor to have a seven-year association with a television producer. The incentives for this arrangement are identical to those of an actor and a studio during the Age of the Studio.[16]

CONCLUSIONS

During the 1960s, less than 100 movie stars maintained exclusive contracts with major studios [Finler, 1988, 256-60]. Short-term contracts started to become the norm, with players signing on with studios on per-film bases. Thus we see the impact of the historical changes in the motion-pictures industry culminating in a change from long-term contracts to free agency.

The analysis herewith presents a rationale for the optimality of long-term contractual arrangements in the U. S. motion-pictures industry during the period of 1929-48, based on the significant role of asset specificity and transaction-cost minimization. A logical extension of this research is a consideration of historical factors in other industries and their relationship to asset specificity and prevalent industrial contract design. Such research would continue to redress the unbalanced ratio of theory to evidence in the contract-theory literature.

NOTES

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1. This analysis is restricted to actors who played lead or principal film roles.
2. For an empirical analysis of profit- and gross-sharing arrangements in the recent era of Free Agency, see Chisholm [1991].
3. Contributions to this line of research include Alchian and Demsetz [1972]; Klein, Crawford and Alchian [1978]; Williamson [1979; 1985]; Cheung [1983]; and Barzel [1989].
4. Grossman and Hart [1986] added yet a fourth transaction characteristic to this list, the relative size of the diseconomies of vertical integration compared to transaction costs incurred by the use of market exchange. Joskow [1985] highlighted this contribution.
5. Yet another type of opportunism between two parties may arise in the form of moral hazard. A party may attempt to shirk on his contractual agreement when effort levels are not directly observable. Moral hazard problems arise from asymmetries of information between the two parties. The "opportunism" discussed in this paper pertains strictly to the appropriability of *ex post* quasi rents. This approach is modeled after Joskow [1985].
6. These categories were proposed first in Williamson [1983, 526]. A more formal treatment of asset specificity appeared in Riordan and Williamson [1985]. Empirical analyses based on this categorization were presented in Joskow [1987]. See also Joskow [1985] and Crocker and Reynolds [1993].
7. Joskow [1987] argued that there is a buyer's side analog to dedicated asset specificity.
8. This model is a restatement of that found in Hart and Holmström [1985, 129]. See also Grout [1984] and Crawford [1988].
9. Since α is a sunk cost by period 2, it is not relevant in determining the *ex post* surplus.
10. The bilateral governance structure of a long-term contract is considered rather than the spectral extreme of a unified governance structure (i.e., vertical integration) due to laws preventing slavery.
11. Film exchanges appear to have been involved with the distribution of films. See Fernett [1988, 87-8, 194-6, 247].
12. For a detailed account of the significance and nature of vertical integration in this industry, particularly as it pertains to antitrust implications, see DeVany and Eckert [1991].
13. This prediction is consistent with Williamson's [1979; 1983; 1985] predictions, and later, Joskow's [1987] analysis. The long-term contract dominates vertical integration according to the argument of *supra* note 10.
The changes in contractual details are not examined systematically here. A growing literature which addresses adjustments in such variables as price and quantity includes Holmström [1983]; Masten and Crocker [1985]; Mulherin [1986]; Goldberg and Erickson [1987]; Joskow [1988]; Crocker and Masten [1991].
14. Prior to 1948, the studio space of the majors was geared primarily towards film production rather than television production. De Vany and Eckert [1991] affirm that, indeed, the star system experienced a decline in the 1940s and 1950s. They do not, however, specifically address the influence that the decreasing degree of asset specificity had on the change in optimal contract design between actors and studios.
15. Eventually, studios went on to use some of their facilities for television production. They did, however, still have an incentive to produce movies using the facilities specifically designed for film production.
16. The association between a television actor and producer may consist of a series of short-term contracts, but the high degree of asset specificity characterizing such a relationship contributes to the longevity of the relationship.

The evidence presented herewith consists of stylized facts and anecdotal evidence on the nature of the contracts between studios and stars. Systematic data on contract length and on the details of contract clauses from the Age of the Studio appears to be unavailable, according to the reference staff at the Margaret Herrick Library, Academy of Motion Pictures Arts and Sciences. For a systematic statistical analysis of recent film contracts between actors and producers, see Chisholm [1991].

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