

VOLUME LVIII, NO. 1 FEBRUARY 2005

THE
ECONOMIC
HISTORY
REVIEW

*a journal of
economic and social history*

*The film business in the United States and Britain during the 1930s*¹

By JOHN SEDGWICK and MICHAEL POKORNY

This article examines the manner in which the film industry worked in the United States and Great Britain in the 1930s, focusing on the pattern of trade between firms on either side of the Atlantic. A particular emphasis is placed on the asymmetry in the performance of British and US film producers, and specifically, on the failure of British producers to find sustained success in the US. It was a period during which filmgoing was the dominant paid-for leisure activity, with revenue from the box-office of the two countries constituting two-thirds and four-fifths, respectively, of all entertainment expenditure.² It was, as A. J. P. Taylor wrote, ‘the essential social habit of the age . . . [which] slaughtered all competitors’.³

The film business during the ‘Classical’ period⁴ (1920 to 1960) evolved in response to two key characteristics of the behaviour of its consumers. First, audiences soon tired of even the most popular films, requiring a flow of new attractions to act as a continuous temptation to go back to the cinema. Therefore, once films had been released on to the market, they had short product lives: in the 1930s there was only the theatrical market and thus a once-only opportunity for amortization. Indeed, so short were their lives as commodities, that Hollywood amortized its film products over a period of 12 to 15 months, with half the expected earnings being generated during the first 13 weeks of release.⁵ In terms of production, this meant that the ‘major’ studios were required to market annually upwards of 50 new films in order to keep their product before the cinema-going public. The function of distribution was to maximize the screen-time accorded to each film, whereas that of exhibition was to make screen-time available to a film only while the paying audience was sufficiently large. Both functions had a life-or-death financial interest in handling the films that audiences wanted to see. Clearly, the function of production was to make those films, but the problem was that *ex ante*, producers did not know exactly what audiences wanted and audiences did not have a full conception of what it was that

¹ The authors would like to acknowledge the contribution made by Bernard Hrusa Marlow to the development of this article. Helpful comments on earlier drafts were made by Mark Glancy, Andrew Hanssen, and James Obelkevitch. The comments of two anonymous referees also improved the focus of the article.

² Stone and Rowe, *Consumers' expenditure; Historical statistics of the US*, ch. H, ser. 883–4.

³ Taylor, *English history*, p. 313.

⁴ Bordwell et al., *Classical Hollywood cinema*.

⁵ Greenwald, *Motion picture industry*, tab. VI-2, presented in Sedgwick, *Popular filmgoing*, tab. 3.1.

they liked, mostly because novelty appeared to be an essential element in consumer demand.⁶ This implies that audiences were engaged in what De Vany and Walls have characterized as a discovery process.⁷ As a consequence, both production and consumption decisions were shrouded in uncertainty. It was a risk-laden situation, characteristic of products that have an irreducibly 'artistic' component and, of course, it prevails just as powerfully today. Interestingly, the tendency towards monopoly—suggestive of an industry in which production costs are endogenous and largely sunk, distribution universal, consumer prices invariant, and consumer tastes highly developed—was thwarted by the stimulus to competition implicit in the short life-cycle characteristics just described and in the need to innovate constantly.⁸

The second characteristic is the fact that audiences differentiated films qualitatively in such a way that a small number of 'hit' films were disproportionately successful at the box office, resulting in a highly skewed distribution of global revenues. In a series of articles, De Vany and Walls have provided evidence of this during the 1980s and 1990s in the American market.⁹ Sedgwick has done the same for the period 1946 to 1965,¹⁰ and we present here further evidence for this empirical regularity from both sides of the Atlantic during the 1930s. In general terms this regularity arises from exhibitors constantly demanding films from producers that would be expected to appeal widely to consumers and thereby generate high box-office revenues. In the event, only a relatively small number of films were successful in these terms, as each film release had to compete on its own merits against large numbers of new rival products. The dilemma for producers was that films generating high revenues tended to be those with high production values, and hence were costly to produce. But for producers high budget films, while having the potential to generate high box-office revenues, were not necessarily profitable—the higher the production budget the higher were the revenues required to cover the costs of production and distribution. Thus while a number of high budget films during the 1930s were outstandingly successful—they were the hits of their respective seasons—there were also a substantial number of them that were markedly unsuccessful, in that they generated considerable losses for their producers.

Film producers attempted to resolve this dilemma by constructing annual portfolios of films that were diversified in terms of the variation in production budgets, genre composition, and the distribution of star and directorial inputs. Thus, low to medium budget production provided a reliable source of profits (given the relatively low box-office revenues that were required to cover costs), and in many cases resulted fortuitously in hit films, but essen-

⁶ Bianchi, 'Taste for novelty'.

⁷ De Vany and Walls, 'Bose-Einstein dynamics'.

⁸ Sutton, *Sunk costs*; Bakker, 'Decline and fall'.

⁹ Collected in De Vany, *Hollywood economics*.

¹⁰ Sedgwick, 'Product differentiation'.

tially it played the role of cross-subsidizing the risky activity of high budget production. The key to financial success during the 1930s was to be found in the aggregate financial performance of the annual film portfolio, with hits often emerging from quite unexpected parts of the portfolio. Thus, film producers built up their understanding of this dynamic market through the performance of their film portfolios, with film making strategies and portfolio construction evolving accordingly.¹¹ Any new entrant to this market had to be prepared to undertake the substantial investment required to construct an annual film portfolio, and, crucially, to replicate this investment over a number of years in order to gain a market presence. As will be argued, British producers underestimated the nature of the commitment that was required to achieve success in the US. It will also be shown that although the industry had integrated vertically, with the five 'major' Hollywood studios and the two largest British companies operating as producers, distributors, and exhibitors, this did not lead to exclusive exhibition arrangements—barriers to distribution and exhibition were not insurmountable to new entrants. Indeed, the point about 'hit' films was that their popularity was such that they appeared on the screens of rival cinemas, of course for a price.¹²

This production environment of the 1930s stands in stark contrast to that of the postwar period. With the collapse of the studio system, brought about by a fall of two-thirds in real revenues during the period 1946 to 1965, the focus of the emerging independent producers was increasingly on the production of hits, via the deployment of escalating production budgets, with a move away from lower budget production as television rapidly dominated the market for outputs with lower production values.¹³ Consequently, the importance of a diversified film portfolio diminished in the postwar period, with film making focusing increasingly on specialized, high budget production.

The article is structured as follows. Section I presents some broad statistical summaries of both the US and British markets—the two largest markets in the world at that time—and sets out the context for what follows. A discussion of the structural characteristics of the production, distribution, and exhibition sectors is then presented, followed by a description of the sample data and an analysis of the patterns of film popularity in both markets. A detailed analysis of the exhibition sector in the US is undertaken next, and it examines the hypothesis that the relative lack of success of British films in the US can be attributed to barriers to distribution and exhibition. Further detailed evidence of the asymmetry in the performance of British and US films in their respective markets is then presented,

¹¹ For a more detailed discussion of these issues for the case of Warner Bros. in the 1930s, see Sedgwick and Pokorny, 'Risk environment', and Pokorny and Sedgwick, 'Stardom'.

¹² King, 'Stardom as occupation'.

¹³ A fuller discussion of these trends can be found in Sedgwick, 'Product differentiation', and Pokorny, 'Hollywood and the risk environment'.

followed by an analysis of the performance of three of the majors during the 1930s, emphasizing the complexities of film production under the studio system, and the competitive environment within which British producers had to operate. A final section presents our conclusions.

I

In Britain there were close to a billion admissions per annum during the 1930s, from a population of 47 million, averaging at 19 visits per caput, with audiences paying on average 10d. (4.17p.) per visit.¹⁴ When compared with the 2.233 billion admissions in the US in 1935, from a population of 127 million, similar statistics emerge: Americans on average made 18 visits per caput to motion picture theatres, paying 25 cents per visit.¹⁵

The British market for film entertainment was in size second only to that of the United States during the 1930s, a fact reflected in cinema statistics. Rowson estimated that there were 4,305 cinemas wired for sound in Britain in 1934, rising to 5,000 by the end of the decade, with a seating capacity of 3,872,000.¹⁶ The US had almost four times as many cinemas in operation, rising from 14,552 to 15,701 between 1934 and 1939, and a greater concentration of seats, with 1 seat for every 12 inhabitants compared with the ratio of 1 to 15 in Britain.¹⁷ In contrast, Germany, with a much bigger population than Britain's (66 million, against 47 million) and a slightly greater number of cinemas (5,271 in 1937), had a seating capacity of less than 2 million seats; indeed France, with a population of 42 million, had more seats (2.1 million) than Germany.

In terms of box-office revenues, Rowson estimated receipts in Britain to be in the order of £40 million in 1934.¹⁸ This compares with estimates for the US of \$518 million for the same year.¹⁹ With an exchange rate of \$4.5 to £1 (based on comparative unit labour costs), it appears that the British market for films was approximately one-third the size of the American market.²⁰ This disparity in size marks a fundamental asymmetry that is crucial to understanding film relations between the two countries. To compete effectively with Hollywood—to present films of a comparable quality and expense so as to match the production and story-telling values common to the product of its 'major' studios—British films needed to be as popular in the US market as Hollywood's own product: they needed to generate comparable revenue streams.

Unfortunately for British producers, this did not happen. Hollywood big-budget productions had, through their British subsidiary in-house distribu-

¹⁴ Browning and Sorrell, 'Cinema and cinema-going'; Sedgwick, *Popular filmgoing*, tab. 2.1.

¹⁵ Conant, *Antitrust*, tab. 1 from Department of Commerce publications.

¹⁶ Rowson, 'Statistical survey', p. 76.

¹⁷ *Historical statistics of the US*, ch. H, Ser. 884 and collected in Wood, *British films*, pp. 128–30.

¹⁸ Rowson, 'Value of remittances abroad'.

¹⁹ *Historical statistics of the US*, ch. H, ser. 884.

²⁰ Dimsdale, 'British monetary policy'.

tion services, full access to the British market and showed themselves to be highly popular with British audiences, but this was not the case with British big-budget films in the US market, which were neither as widely distributed, nor, where they were screened, as popular as rival Hollywood productions.

This was not a failure caused by timidity or lack of initiative, but the result of telling differences in the investment cultures of Britain and the US. During the 1930s, two British studios—Gaumont British, with Michael Balcon as head of production, and London Films, founded and led by Alexander Korda—made serious attempts to devise ‘international’ films that they believed would be attractive to American audiences.²¹ In the case of Gaumont British a New York-based in-house distribution company was established, while the films of London Films were distributed through United Artists. Although many of these films received good press notices, their performance in US cinemas bore no relationship to their popularity in the British market, and both adventures ended in corporate failure.²²

One possible explanation for the dominant performance of US films in the British market derives from the socio-economic concept of ‘cultural discount’, introduced by Hoskins and Mirus in 1988.²³ They were working on problems in the trading of television programmes, and the concept was developed to explain Hollywood’s current global dominance in cultural trade. In essence, ‘discount’ is used in its literal, monetary meaning: a television programme made in cultural milieu A commands a certain price in its own market, but if it is exported to cultural milieu B, in which some or many of the constitutive cultural elements differ from A’s, its appeal to B’s consumers is diminished, and it has to be sold at a discount in B’s market. It follows that the more culturally ‘distant’ is B from A, the higher is the cultural discount. McFadyen, Hoskins, and Finn derived a measure of cultural distance—specifically, a composite index measuring the cultural distance between the US and each of a wide cross-section of countries—and demonstrated that the price paid by each country for US television programmes was lower the more culturally distant was the country from the US, after standardizing for a range of economic and demographic factors that might also be assumed to influence price.²⁴ Therefore, for any two countries, that with the largest domestic market will be the dominant exporting country, and market share in the importing country will be directly related to the size of the cultural discount, *ceteris paribus*.

In view of the cultural ‘closeness’ of the two countries, such a concept would appear to be useful in explaining the success of Hollywood films in Britain. Given that the US domestic market for film in the mid-1930s was about three times the size of the British market, it is not surprising that Hollywood established a significant presence in the British market. How-

²¹ Sedgwick, *Popular filmgoing*, ch. 10; Street, *Transatlantic crossings*, chs. 2 and 3.

²² Low, *Film making*.

²³ Hoskins, and Mirus, ‘Reasons’.

²⁴ McFadyen et al., ‘Measuring the cultural discount’.

ever, British films were relatively unsuccessful in the US. None achieved a ranking higher than 104 in the US in the mid-1930s, and their relative lack of success would imply that this concept of cultural distance is not a symmetrical one. Therefore, either it has limited explanatory content, or more complex historical/institutional forces were at work to privilege US production in the minds of British audiences, and/or to condemn British production as inferior in the minds of US audiences. Thus, undoubtedly the limited success of British films in the US was due, in part, to the unevenness in distribution across the two markets, referred to earlier. But the comparative failure of top 10 British features such as *The 39 Steps* and *The Scarlet Pimpernel* when they were screened in the US market suggests that American filmgoers were less interested in British cultural products, *per se*, being more enamoured of Hollywood's depiction of the material and psychic world, including that of Britain and its heritage.²⁵

II

One film product is preferred to another on the basis of the qualitative density of its content, which will include what are known as production, acting, star, directorial, aesthetic, and narrative values: all inputs in the production function. Bakker has shown that in the period from the mid-1910s the US film studios, newly located in Los Angeles, and in particular around Hollywood, started to invest (sink) considerably more in unit film production than their European counterparts, while producing on a markedly greater scale.²⁶ These developments were the outcome of the acceptance by cinemagoers of a new type of film product—the feature film—that required a new set of artistic conventions to carry the much longer narrative, which in turn needed a new approach to the organization of production.²⁷ The process was given added impetus by the doubling in the demand for film entertainment in the US during the 1920s.²⁸ By learning how to produce films in large numbers under competitive conditions, the Hollywood studios developed a mode of production that endowed their films with more, and better-executed, audience-captivating filmic attributes per dollar invested than those of their consequently disadvantaged competitors. Moreover, the divergence that occurred between European and Hollywood production during the 1920s made Hollywood an increasingly attractive work location for European film talent.

That industry production standards were determined by Hollywood is explained not simply on the grounds of cinemagoers' preferences, but also by the fulfilment of the necessary material condition that they were able to

²⁵ Glancy, *When Hollywood loved Britain*.

²⁶ Bakker, 'Decline and fall'.

²⁷ Bordwell et al., *Classical Hollywood cinema*; Izod, *Hollywood and the box-office*; Sklar, *Movie-made America*.

²⁸ *Historical statistics of the US*, ch. H, ser. 884.

see its films constantly and abundantly. With the growth of Hollywood and the development of the studio system came the business of film distribution, the logic behind which is that once the sunk costs of production have been incurred, the resulting film product should be screened whenever and wherever there is a demand for it, with the proviso that the marginal costs associated with its distribution are covered. By the early 1920s Hollywood's distributors had a reach that was worldwide,²⁹ allowing the productivity of its films (and hence of those inputs that were combined in their production), measured by the number of screenings that they might receive, or the revenue that they might earn, to become potentially very great indeed.

The pattern of distribution/exhibition that emerged in the US during the 1920s was based on a price discriminatory model by which films typically diffused out in time and space from their initial release date in a particular film exchange, from higher order to lower order cinemas. Each order, or 'run', in the distribution hierarchy was well defined according to the grading of the box-office potential of its constituent cinemas. Thus first-run cinemas received films earlier, were larger, and charged higher prices than subsequent-run cinemas in their respective cities and hinterlands. In the US, block booking was a key element in the system of runs, clearances, and zoning, whereby 'films were sold as a package, with the size of the package depending on the exhibitor's needs' and designed to maximize distributor revenues.³⁰ Exhibitors were given exclusive rights to those films in a demarcated location for a period of time. The whole system was policed by the Motion Picture Producers and Distributors of America (MPPDA)—the 'major' studios' trade association. By the 1930s, there were 31 exchanges in the US, with a further six in Canada.³¹

The British system of distribution was determined, and then dominated, by the same American distributors, who, given the moribund state of British production during the 1920s, had the field largely to themselves. Indeed, such was the influence of Hollywood in the British market that Jarvie has written that 'British films owed their existence to, indeed were in a certain way parasitic upon, the exhibition industry created around the American [film] product.'³² In Britain, block booking was made illegal by the Cinematograph Films Act of 1927, the purpose of which was to encourage domestic producers through the imposition of quotas on distributors and exhibitors, rising in stages, in both cases to 20 per cent, until 1935–6. In effect, the legislation changed the risk environment to the advantage of the 'quality' end of British production because, given that exhibitors now had to screen a rising proportion of indigenous product, their preference would clearly be for films that would attract cinemagoers, especially as these films would have to compete against Hollywood product also being screened in

²⁹ Thompson, *Exporting entertainment*.

³⁰ Hanssen, 'Block booking of films', p. 997.

³¹ *Film Daily Yearbook*, 1936, p. 835.

³² Jarvie, *Hollywood's overseas campaign*, p. 172.

the same locality.³³ That the legislation was successful can be gauged by the extent to which the distributor and exhibitor quotas were exceeded annually, causing leading industry intellectual Simon Rowson to proclaim this fact

as a conclusive demonstration that the Act had achieved its purpose of establishing an industry which might have never come into existence without the protective aid of this legislation.³⁴

III

The assumption that box-office revenues can be used as an index of film popularity is based on three propositions. First, film audiences are well (though never perfectly) informed. Second, in choosing between films *A*, *B*...*Z*, they are revealing *ex ante* a preference for particular product characteristics such as star, genre, and/or directorial values.³⁵ Third, the invariance in admission prices between those films being screened at any one cinema, when taken together with the principle of exhibition—to make screen-time available to a film only while the paying audience is sufficiently large—implies that the willingness of audiences to pay for the set of particular pleasures promised by any one film, i.e., the film's popularity, would be reflected purely by the lengths of the runs, hence the revenues, achieved by that film at the cinemas at which it was shown.³⁶ In the context of the run-hierarchy system of release that was in place in the 1930s, distribution/exhibition had to respond by rapidly adjusting supply to the different demand levels registered for those films on release, through a contingency prolongation or curtailment of the original exhibition contract.³⁷ It is perhaps worth noting that because a cinemagoer can never be perfectly informed, the fact that a film is popular does not mean that, *ex post*, every ticket buyer will have liked the film, but rather that neither the number of discontents nor the intensity of their disappointment is sufficient to create word of mouth that would dissuade many potential attendees.

³³ For their part, the Hollywood studios, via the MPPDA, had lobbied forcefully against the legislation, and did no more than obey the letter of the law, instructing their British distribution subsidiaries to fulfil their obligations as cheaply as possible. They commissioned films that became known pejoratively for their quantity and quality as 'quota quickies'. See Low, *Film making*, pp. xiv, 33; Jarvie, *Hollywood's overseas campaign*, ch. 5; Sedgwick, *Popular filmgoing*, ch. 4.

³⁴ Rowson, 'Statistical survey', p. 108.

³⁵ The history of film criticism suggests that there have been many films elevated to canonic status that were not so highly considered by contemporary audiences. For accounts of the various strands in the reception of films and how different agencies are affected by the context in which the reception takes place, see Klinger, *Melodrama*; Staiger, *Interpreting films*.

³⁶ De Vany and Walls, 'Bose-Einstein dynamics', p. 1497. Exceptionally, the opening nights of particularly eagerly awaited films were priced more highly: *Variety*, 4 Sept. 1935, report for the opening of *Top Hat* (1935) at the Pantages theatre, Los Angeles.

³⁷ In exceptional circumstances the number of screenings per day was increased. The film *Roberta* (1934) had two 7a.m. screenings in its first week at the RKO Theatre in Los Angeles: *Variety* 13 March 1935.

Table 1. *Summary data of the sample datasets*

	Great Britain	United States
Cinemas	88	104
Total seats	153,106	282,674
Average seats per cinema	1,740	2,718
Average mid-range price	£0.09	\$0.40
Box-office revenue	N/a	\$121,114,613
Films screened	1,213	969
Total screenings	13,237	11,016
Single-bill programmes	2,163	6,384
Double-bill programmes	5,537	2,310
Maximum bookings for a film	34	29
Median film bookings	12.5	11
Films with only one booking	63	110
Programmes found with 'live acts'	N/a	1,545

Notes: 'Total screenings' is derived as single bill programmes plus 2*double-bill programmes. A 'booking' represents a screen engagement at one of the cinemas in the sample set. The number of live acts in the US is an underestimate since the monthly tables format in which *Variety* reported box-office information and from which the bulk of the dataset was drawn did not always include all of the live acts reported in the weekly text reports. In Britain 'live acts' were far less common and not reported in the trade press.

Sources: *KineWeekly* for Great Britain and *Variety* for the US

Two datasets, one for each country, have been constructed to study the patterns of film popularity in both countries, summary data of which can be found in table 1. The US dataset is drawn from the weekly reports of box-office takings of 104 first-run cinemas, including four in Montreal, Canada, for the 25 months from the week ending 4 October 1934 to the week ending 29 October 1936, published in the film trade journal *Variety*. The cities reported were Birmingham, Boston, Brooklyn, Buffalo, Chicago, Cincinnati, Denver, Detroit, Indianapolis, Kansas City (Missouri), Los Angeles, Minneapolis, Montreal, New Haven, New York, Philadelphia, Pittsburgh, Portland (Oregon), Providence, St Louis, San Francisco, Seattle, Tacoma, and Washington D.C.³⁸ Besas provides an account of the apocryphal nature of some of the reporting, quoting an editor as saying, with regard to their accuracy, that the published grosses a decade later 'were as close as one could humanly get, however, with the caveat that there was plenty of bogus reporting and exhibitor cheating'.³⁹ Nevertheless, as argued elsewhere, the trade treated the box-office data published by *Variety* with respect, and while it was roughly hewn and approximate, 'it accorded with the experience of those whose livelihoods were bound up in the film business'.⁴⁰

³⁸ Films included in the sample are those whose principal exhibition was during these 25 months. The records of films released before 1 Oct. 1934 but exhibited predominantly during and after this month are included. Likewise included are the records of films released during Oct. 1936 and receiving subsequent exhibitions in Nov. and Dec. 1936. The dataset remains largely unexploited by scholars and represents an important new source of information about film popularity.

³⁹ Besas, *Inside 'Variety'*, p. 283.

⁴⁰ Sedgwick, 'Product differentiation', p. 682.

In contrast, information concerning the revenues of films distributed in Britain during the 1930s is extremely thin. Indeed, for reasons that are unclear, the trade journal, *Kine Weekly*, from which the British dataset is drawn, did not publish the box-office returns of the cinemas listed in its weekly report on films being screened in leading cinemas.⁴¹ To remedy this deficiency a proxy index of film popularity (POPSTAT) has been constructed from the imputed box-office revenues of a sample of 88 leading London West End and provincial city cinemas in Birmingham, Bristol, Edinburgh, Glasgow, Leeds, Liverpool, Manchester, Newcastle, and Sheffield for the two years 1935 and 1936.⁴² The popularity of each film is defined as:

$$POPSTAT_{it} = \sum_{j=1}^n a_{jt} * b_{ijt} * l_{ijt}$$

where

n is the number of cinemas in the sample set;

a_{jt} is a weighting factor for cinema j during period t , reflecting the relative revenue generating potential of cinema j ;⁴³

b_{ijt} reflects the exhibition status of film i at cinema j during period t . That is, b_{ijt} takes on the value 1 if film i is presented as a single bill programme, 0.5 if it is part of a double bill, and 0 if it is not shown at cinema j ;

l_{ijt} is the length of exhibition of film i at cinema j during period t , measured to the nearest half week.

In effect POPSTAT is an index of the relative revenue potential of each feature film that was programmed at least once in one of the sample set of cinemas and it requires the reader to assume that all cinemas in the sample operated at the same level of capacity. By providing relative weights to each cinema, the index reflects the unequal earnings potential of cinemas in the sample, hence giving greater importance to the cinemas of London's West End.⁴⁴

⁴¹ This is doubly strange because at irregular intervals (of between six weeks and three months) box-office reports of London's West End cinemas appear in *Variety* during the period.

⁴² These cinemas are listed in Sedgwick, *Popular filmgoing*, app. 1, and make up almost a complete set of first-run cinemas in the named cities. The discrepancy in the dates allows for the later release of Hollywood films in the British market.

⁴³ The weighting for each cinema is given by its potential gross box-office revenue, which is obtained by multiplying its mid-range price by the number of seats, expressed as a proportion of mean potential box-office revenue of the sample cinema set. Hence the weights reflect the relative commercial status of each cinema.

⁴⁴ Due to the absence of any consistent box-office data for film releases in Britain, it is not possible to test directly the reliability of the POPSTAT measure as a reflection of actual box-office revenue. However, an indirect test can be performed. Sedgwick, *Popular filmgoing*, app. 3, presents the POPSTATs for 166 films released by MGM, RKO, and Warner Bros. in Britain between 1932 and 1937. The actual US and foreign distributor incomes generated by these films are also known (see Glancy, 'MGM'; *idem*, 'Warner Bros'; Jewell, 'RKO'). Assuming that distributor incomes are highly correlated with box-office revenues, and that foreign distributor incomes are closely correlated with British revenues (because Britain was the main foreign market for US films), then there should be a high correlation between POPSTAT and foreign distributor incomes. The resulting correlation coefficient for the 166 films is 0.75, supporting the general robustness of POPSTAT as a reflection of British revenues. Additionally Walls, 'Review', subjected the POPSTAT data to further statistical scrutiny and also concluded that the measure provides a reliable reflection of box-office revenues.

Table 1 reveals the comparable nature of the two samples, with similarities in the number of cinemas and screenings, and a close similarity in prices.⁴⁵ Because the POPSTAT statistic is a measure of relative rather than absolute box-office performance, the actual revenue generated by the films in the British sample is not presented, whereas the figure found in the US column is a simple aggregate of the revenues reported in *Variety*. In table 1, the predominance of single bill programmes in the US dataset is to be expected, given the first-run nature of the cinemas in the sample and that double-bill programmes were the norm in only half of all the cinemas in the US by this point in the decade.⁴⁶ That single bills were less common in the British sample can be explained by the fact that a greater number of films were in circulation and by the legal requirement that a specified proportion of these had to be 'British' within the meaning of the 1927 legislation. Another interesting facet of exhibition in the US was the extent of live shows, with approximately 1,500 distinct weekly, or occasionally longer, acts featured during the 25 months at particular licensed cinemas, often as the evening's main entertainment. These acts commonly fell into one of four forms: 'vaudeville' or 'stage shows', including American-type 'follies' shows, often top-billed by stars of the screen and/or radio; or popular orchestras, often show-casing a nationally known vocalist; or 'French' revues, generally containing scantily dressed women performing sexually provocative material; or local amateur talent contest evenings organized through the Major Bowes Amateurs organization. In the sample, just under 15 per cent of all programmes had a 'live' dimension, a level of occurrence that would moderate Hanssen's claim 'that the advent of sound technology (during the late 1920s) led to a rapid extinction of live performances'.⁴⁷

Although each sample of cinemas is small in relation to the population from which it was drawn, they do represent an altogether larger proportion of an elite group of national first-run cinemas.⁴⁸ The MPPDA calculated that there were approximately 450 first-run cinemas in cities with more than 100,000 inhabitants in 1941, which means that the US sample represents approximately two-fifths of the cinemas in that first-run population.⁴⁹ The British sample includes almost all of the first-run cinemas to be found in the cities (listed earlier) from which the sample is drawn.⁵⁰

⁴⁵ Given the exchange rate of £1 = \$4.5.

⁴⁶ *Film Daily Yearbook*, 1936, p. 39; Balio, *Grand design*, ch. 4; Gomery, *Shared pleasures*, pp. 77–8.

⁴⁷ Hanssen, 'Revenue-sharing', p. 392. Unfortunately, in Britain, there is no systematic source of information on this aspect of cinema going as the *Kine Weekly* did not record 'live acts', although it is likely that 'live' entertainment was not so widespread: see Eyles, *Granada theatres*.

⁴⁸ *International Motion Picture Almanac*, 1936–7, p. 992, derived from the Department of Commerce.

⁴⁹ *International Motion Picture Almanac*, 1946–7. The populations of the cities from which the sample set of cinemas is drawn sum to just under 26 million.

⁵⁰ The listings of all cinemas in operation in Britain, found in the *Kine Weekly Year Books*, suggest that perhaps only six additional cinemas also might have been included in the cities from which the sample was drawn.

The significance of this investigation's wide coverage of first-run cinemas is that the films that secured at least one exhibition in the sample set of cinemas, 969 in the US and 1,213 in Great Britain, could be expected to be distributed to second, third, . . . n^{th} -run cinemas. It is true that the popularity rankings revealed in the set of first-run cinemas (see table 3 below) would not be exactly replicated in lower order cinemas. An earlier study shows that distinctive variations in preferences existed between audiences attending the London West-End and provincial city cinemas and those attending cinemas in Bolton (in particular) and Brighton.⁵¹ It was also the case that the lower order cinemas exhibited films not seen in the higher order tiers. Nevertheless, local/regional distinctions in taste seldom affected the overall level of popularity of a first-run status film. Films that were the 'hits' of their day needed to perform extremely well in the first-run market and it was a matter of experience among distributors and exhibitors that, for the greater part, those films that did so were also relatively popular with audiences attending lower order cinemas.

To test this proposition for the US market, the first-run cinema box-office revenues, as recorded in the sample, of 93 MGM, 86 RKO, and 118 Warner Bros. films released in 1935 and 1936, were compared with their US grosses (i.e., from all the US cinemas in which they played) as reported in the complete Eddie Mannix (MGM), C. J. Trevlin (RKO), and William Schaefer (Warner Bros.) ledgers.⁵² The results of this analysis show that the two series were highly and significantly positively correlated for all three studios: correlations in excess of 0.9 occurred in all three cases, and so it is possible to say with confidence that films that were popular at the higher level tier of cinemas were similarly popular across the exhibition hierarchy.

The significance of the sample set of cinemas is further confirmed by comparing the gross box-office revenues of all of the films reported in *Variety* during the period of the investigation with Department of Commerce estimates of the US box-office of \$556 million in 1935 and \$626 million in 1936.⁵³ The aggregate of the box-office reported in *Variety* for the 104 sample cinemas—0.6 per cent of the population of US cinemas—sums to \$121,114,613, or approximately 10 per cent of the market box-office estimate of \$1.182 billion.

IV

First-run cinema ownership was dominated in both countries by vertically integrated film businesses—Associated British Pictures Corporation (ABPC) and Gaumont British in Britain, and Loew's-MGM, Paramount,

⁵¹ Sedgwick, *Popular filmgoing*, chs. 5–6.

⁵² The ledgers are partially reported and analysed in Glancy, 'MGM'; *idem*, 'Warner Bros.'; Jewell, 'RKO'. We are grateful to Mark Glancy and Richard Jewell for making the complete ledgers available.

⁵³ *Historical statistics of the US*, ch. H, ser. 884.

RKO, 20th Century Fox, and Warner Bros. in the US were the major players. Just under half of the cinemas and seats in the British sample were owned or controlled by the two leading British combines. In the US the vertically integrated 'major' Hollywood studios controlled the programmes of over 64 per cent of the sample cinemas and 63 per cent of their seats, with the remaining cinemas—as in Britain—either independents or parts of small regionally based chains.

Although it might be expected that cinema ownership was a determining factor in film exhibition, with exhibitors privileging those films made by their own production studios—thereby saving on search costs while guaranteeing in-house films a retail outlet—the reality was not as simple and clear-cut. Two important factors militated against this practice: first, in the US the major chains were concentrated in particular geographic regions—Fox in California, the intermountain region of Colorado, Idaho, Montana, Nebraska, New Mexico, and Wyoming, and the Midwest; Loew's in New York City, New York State, and New England; Publix/Paramount in New York, New England, the Midwest and the south and south-west; RKO in New York and New England; and Warner Bros. in New York City and New England.⁵⁴ But even within the regions the distribution was uneven, with different chains being unequally represented in particular locations. Among the sample set of cinemas, Fox was particularly strong in Los Angeles and San Francisco; Publix/Paramount in Buffalo, Chicago, Detroit, and Minneapolis; Loew's in New York and Washington DC; RKO in Cincinnati and Denver; and Warner Bros. in Philadelphia and Pittsburgh.

Second, the distribution/exhibition system did not work on the basis of exclusion, but rather on the principle of expedient inclusion. Each 'major' cinema chain readily screened the films of rival studios when their films were likely to be popular with audiences, not hesitating to pull its own films from billings when they proved unpopular. This behaviour was even more likely where one 'major' held a dominant position in the local market. On the basis of contractual evidence of Warner Bros. cinemas in the Long Island area during the 1930s and 1940s Hanssen has argued that 'there was substantial *ex post* substitution of poorly performing films for better performing films, but with the blessing of producers—because of revenue sharing, both producer and exhibitor gained when film runs could be adjusted in line with demand.'⁵⁵ It was inconceivable that in a US city in which, say, RKO was not strongly represented, such as Chicago, the films of Fred Astaire and Ginger Rogers—RKO's major joint stars—would not be shown. Rather, the oligopoly that was Hollywood, based upon the fact that cinema real estate accounted for the bulk of studio assets and income, was built upon self-interested cooperative practices whereby 'the majors show(ed) their own films and each other's' in response to a demand for

⁵⁴ *Film Daily Yearbook*, 1937. In Britain the geographic distribution of ownership was much more regular.

⁵⁵ Hanssen, 'Block booking of films', p. 423. See tab. 7 of the same article for further evidence.

Table 2. *Exhibition records of selected sample cinemas*

	<i>Films screened</i>	<i>Weeks</i>	<i>Revenue</i>		<i>Films screened</i>	<i>Weeks</i>	<i>Revenue</i>
<i>Section A</i>							
(in which the cinema listed belongs to the city's dominant chain)							
<i>Albee, Cincinnati-RKO</i>				<i>Chicago, Chicago-Paramount/Publix</i>			
Columbia	5	5	60,000	Columbia	8	12	403,200
Fox/TCF	20	19.5	235,800	Fox/TCF	19	21	671,600
MGM	28	30	409,000	MGM	18	21	665,400
Paramount	21	20.5	227,000	Paramount	26	30	1,059,100
RKO	16	16	226,750	RKO	1	1	25,400
UA	9	9	105,500	WB	24	26	786,600
Universal	3	3	34,500	Universal	1	1	55,800
WB	6	6	79,400	Total	97	112	3,667,100
Total	108	109	1,377,950	<i>Stanley, Philadelphia-Warner Bros.</i>			
<i>Palace, Washington-Loew's (MGM)</i>				<i>Columbia</i>			
Fox/TCF	20	34	473,500	Columbia	6	8	118,300
MGM	25	48	794,500	Fox/TCF	2	2	32,500
Paramount	16	22	302,500	MGM	15	27	447,700
UA	9	11	142,500	Paramount	25	31.5	340,400
Total	70	113.5	1,713,000	RKO	7	11	182,500
<i>Warfield, San Francisco-Fox</i>				<i>UA</i>			
Fox/TCF	31	24.5	482,250	UA	1	1	9,200
MGM	25	30.5	622,550	Universal	4	4	55,500
Paramount	22	17.0	317,500	Warner Bros.	22	22	275,700
Warner Bros.	26	21.5	397,250	Others	2	2	25,000
Others	5	5	73,750	Total	84	108.5	1,486,800
Total	109	98.5	1,893,600	<i>Section B</i>			
(in which the cinema listed does not belong to the city's dominant chain)							
<i>Metropolitan-Brooklyn-Loew's (MGM)</i>				<i>Earle-Washington-Warner Bros.</i>			
Columbia	1	0.5	8,000	Columbia	16	16	291,000
Fox/TCF	18	14.5	209,500	Paramount	28	28	486,000
MGM	72	74	1,158,750	RKO	1	1	15,500
Paramount	1	1	12,000	TCF	1	1	10,000
RKO	1	0.5	7,500	WB	61	62	1,099,000
UA	12	9	131,500	Others	4	4	65,000
Universal	3	2	29,750	Total	111	112	1,966,500
Others	8	5.5	101,500				
Total	114	105.5	1,658,500				

Notes: The total number of films screened by each of the cinemas counts both films on double-bill programmes. The difference in this aggregate across cinemas reflects differences in the propensity of cinemas to screen double bill programmes and to hold films over. The 'Weeks' columns count the number of weeks during which films were shown at each of the cinemas. Screenings count films that fall just outside this time frame where the bulk of those films' screenings took place within the time frame. For this reason, the Chicago, Chicago and the Palace, Washington have more than 109 weeks recorded. In the case of cinemas with less than 109 weeks, the explanation is that the *Variety* records are not complete.

Source: *Variety*

them.⁵⁶ As King argues with respect to 'hit' films: 'What the lucky producer has, therefore, is a monopoly (copy) right to a film which will give his company access to his competitor's screen time for a price'.⁵⁷

⁵⁶ Huettig, 'Economic control', p. 303. See also Izod, *Hollywood and the box-office*, p. 86.

⁵⁷ King, 'Stardom as occupation', p. 162.

In effect, Hollywood ‘majors’ colluded to maintain supply irrespective of the regional pattern of ownership. In doing this, the studios increased the level of competition in the first-run market, since at a point in time all main studio releases competed with each other in each and every first-run location. In other words, geographic concentration was irrelevant as a factor in the choice given to consumers. Evidence for this can be found in table 2. In section A of that table the programmes of five cinemas, each belonging to one of the ‘majors’ and each located in an area in which the respective ‘majors’ were highly concentrated, are counted according to production company. It is apparent that, for each of the five cinemas, other-studio product constituted a majority of films screened: the bulk of their gross box-office receipts was derived from films emanating from rival studios. However, the story is different in the less frequent situation where a chain was represented by only one first-run house—such as the Metropolitan, Brooklyn, or Stanley, Philadelphia, in section B—in which case the great bulk of its product would come from the in-house studio (MGM and Warner Bros. respectively). From these observations it is possible to formulate a general rule that in a city where a ‘major’ chain was strongly represented by first-run cinemas, a majority of the programmes of its cinemas would consist of non-house product, but where the chain had only a single first-run outlet, then the supply of films screened would be much more skewed towards in-house product.

Likewise, in Britain a similar pattern prevailed, in that the two major chains showed films from rival, principally Hollywood, studios. However, because of the much more even geographical spread of the chains, the urban, dataset cinemas of both chains were likely to be present in the same catchment areas for cinemagoers, which meant that it was less likely that either would show the other’s in-house films.⁵⁸

V

In section III, it was demonstrated that box-office revenues (and, by extension, proxy measures thereof) could be used as an index of film popularity. Therefore, the box-office indices/revenues of the two datasets can be accepted as reflecting accurately patterns of film popularity in both countries. Figures 1 and 2 depict the frequency distributions of these popularity measures, in terms of deciles, showing them to have remarkably similar characteristics. In both sample sets, almost 70 per cent of the films shown at least once generate revenues that fall in the lowest revenue decile of the POPSTAT/*Variety* box-office range. Furthermore, the median revenues for both datasets occur in this decile. Such a combination gives a distribution with a long tail, and a wide spread of box-office earnings, indicating that

⁵⁸ Outside the sample, the town of Bolton had two ABPC cinemas, but none owned by Gaumont British. Nevertheless, Gaumont British films were screened in the town, mostly by independent cinemas but occasionally on the screens of the rival chain’s cinemas: Sedgwick, *Popular filmgoing*, ch. 5.

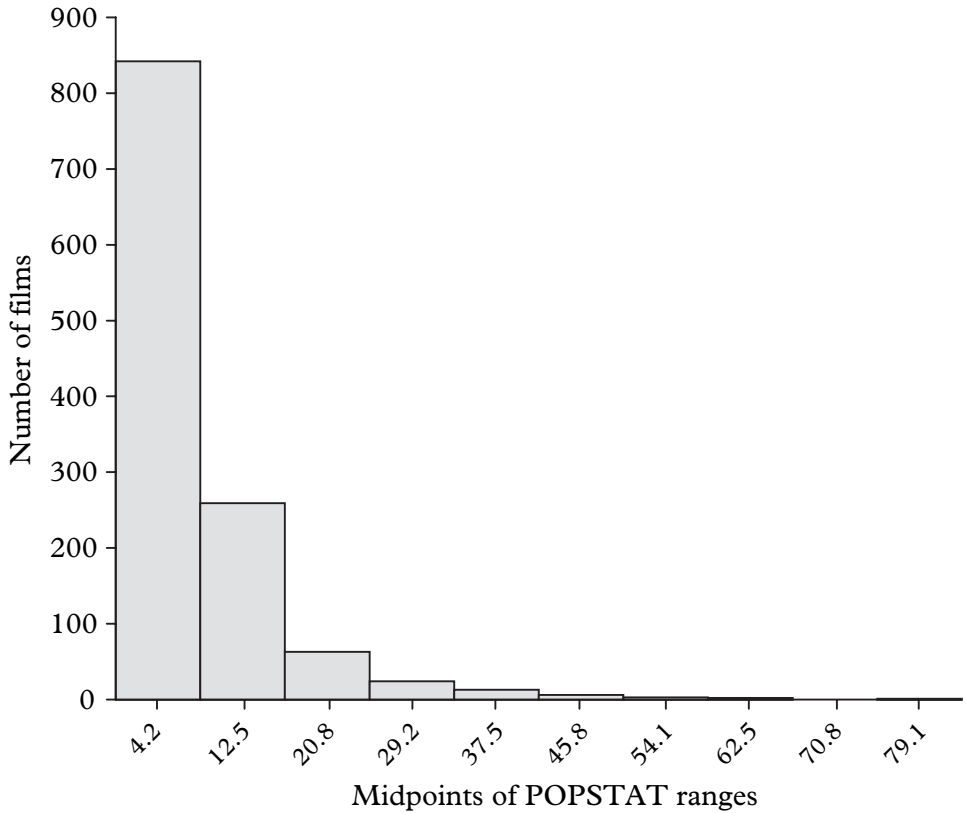


Figure 1. *Frequency distribution of POPSTAT data, Great Britain*

Source: see text

only a very few films released on to the market could be expected to become the 'hit' films of the season. Moreover, since historically the scrutiny of the 'hits' of past seasons and efforts at mathematically modelling the relations between production inputs, profits, and popularity have failed to produce a predictive formula, it has been argued that a 'hit' film can be interpreted as, in effect, the outcome of a stochastic process, i.e., an intractably risky business for the producers of would-be 'hits'.⁵⁹

These top ranking berths were very important to the major producers because of the considerable box-office revenues that accrued to 'hit' films, with the number one films in each list of table 3 generating approximately 10 times that of the mean film. Between them, the top 20 films in Britain and the US generated 10 and 12 per cent of the respective total revenues. At the other end of the distribution, the lowest revenue decile comprised the earnings of the lowest 842 and 645 ranked films in the two markets.

⁵⁹ De Vany and Walls, 'Bose-Einstein dynamics'; De Vany and Walls, 'Uncertainty'.

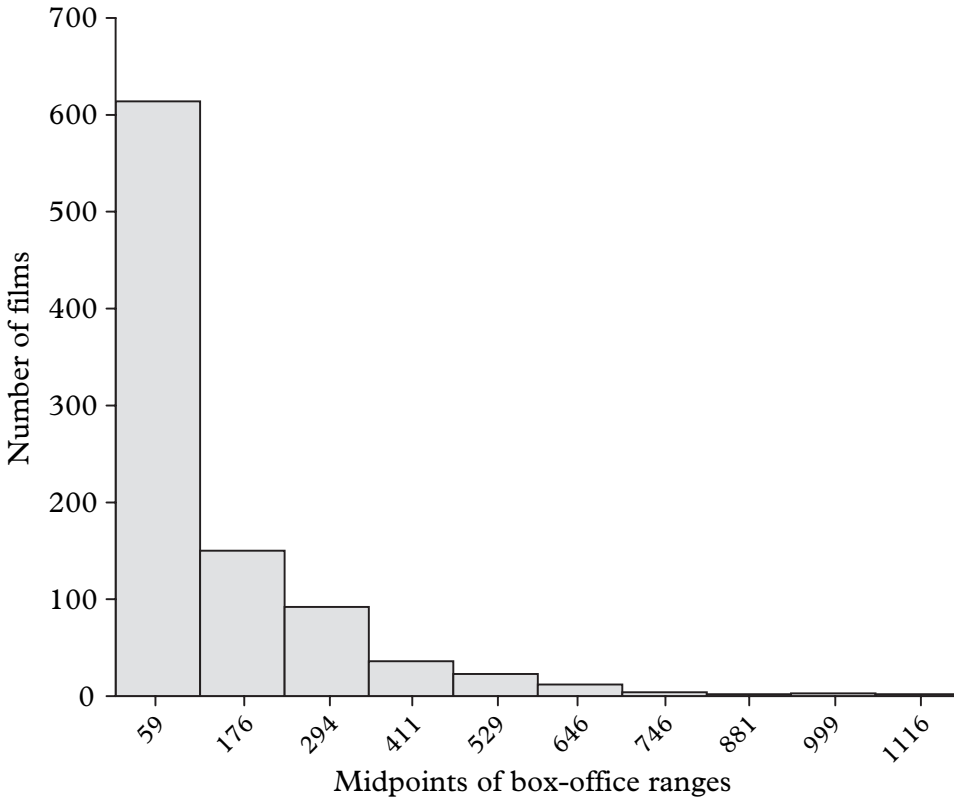


Figure 2. *Frequency distribution of box-office data, US*

Source: see text

Such marked inequalities of revenue result in high Gini coefficients, estimated at 0.50 and 0.58 for the British and US datasets, respectively.⁶⁰

The high productivity on the part of the ‘hits’ of the season suggests a market in which products were vertically differentiated because, although audiences may rank films according to their personal preferences, a seasonally recurrent feature of the market for films is that some few films offer audiences the prospect of a level of pleasure that in almost every way exceeds that which they might anticipate from any among the rest of the season’s releases.⁶¹ The (outstanding) top 20 ranking films of each market—approximately the top 10 films of each of the two seasons covered by the sample—are listed in table 3. In keeping with the role of stars as markers of quality,

⁶⁰ These distributions underestimate the significance of top ranking films in relation to lower ranking films because films that share a billing are given an equal share of the box-office, whereas in practice most double (dual) billing programmes consisted of an ‘A’ and a ‘B’ film in which the former was booked on a percentage basis while the latter earned a flat rate sum.

⁶¹ Sedgwick, ‘Product differentiation’.

Table 3. Top 20 films in US and British markets

US rank/ British rank	Film	Year	Sample BoxOffice \$U.S.	Studio	Genre	Star1	Star2
United States							
1/28	San Francisco	1936	1,163,400	MGM	Historical/action/ melodrama	Gable, Clark	MacDonald, Jeanette
2/4	Top Hat	1935	1,135,500	RKO	Musical romantic comedy	Astaire, Fred	Rogers, Ginger
3/15	Swing Time	1936	999,700	RKO	Musical romantic comedy	Astaire, Fred	Rogers, Ginger
4/5	The Great Ziegfeld	1936	966,700	MGM	Musical biopic	Powell, William	Loy, Myrna
5/3	Mutiny on the Bounty	1935	939,100	MGM	Historical naval drama/ adventure	Gable, Clark	Lughton, Charles
6/21	Roberta	1935	873,650	RKO	Musical romantic comedy	Dunne, Irene	Astaire, Fred
7/14	Follow the Fleet	1936	806,600	RKO	Musical romantic comedy	Astaire, Fred	Rogers, Ginger
8/36	Anthony Adverse	1936	793,000	WB	Historical/action/ adventure	March, Fredric	De Havilland, Olivia
9/10	Love Me Forever	1935	745,900	Columbia	Musical/operetta	Moore, Grace	Carrillo, Leo
10/20	David Copperfield	1935	740,700	MGM	Historical literary adaptation	Fields, W.C.	Barrymore, Lionel
11/2	One Night of Love	1934	733,150	Columbia	Musical/operetta	Moore, Grace	Carminati, Tullio
12/42	My Man Godfrey	1936	684,200	Universal	Comedy	Powell, William	Lombard, Carole
13/22	The Gay Divorcee	1934	671,500	RKO	Musical romantic comedy	Astaire, Fred	Rogers, Ginger
14/25	Broadway Bill	1934	668,900	Columbia	Romantic comedy	Baxter, Warner	Loy, Myrna
15/92	The Gorgeous Hussy	1936	657,800	MGM	Historical drama	Crawford, Joan	Taylor, Robert
16/7	Mr Deeds Goes to Town	1936	647,000	Columbia	Comedy/social comment	Cooper, Gary	Arthur, Jean
17/62	China Seas	1935	644,900	MGM	Action/adventure	Gable, Clark	Harlow, Jean
18/1	Modern Times	1936	643,270	Chaplin	Comedy	Chaplin, Charles	Goddard, Paulette
19/51	Rose Marie	1936	634,100	MGM	Musical/operetta	MacDonald, Jeanette	Eddy, Nelson
20/39	G-Men	1935	626,200	WB	Crime/police drama	Cagney, James	Dvorak, Ann

Great Britain		POPSTAT			
US rank	British rank	Year	Box office	Genre	Cast
1/18	Modern Times	1936	83.26	Comedy	Goddard, Paulette
2/23	Lives of a Bengal Lancer	1935	63.14	Historical empire adventure	Tone, Franchot
3/5	Mutiny on the Bounty	1936	59.36	Historical naval drama/adventure	Laughton, Charles
4/2	Top Hat	1935	54.20	Musical romantic comedy	Rogers, Ginger
5/4	The Great Ziegfeld	1936	53.29	Musical biopic	Loy, Myrna
6/104	The Scarlet Pimpernel	1935	51.20	Historical drama	Oberon, Merle
7/16	Mr Deeds Goes to Town	1936	47.43	Comedy/social comment	Arthur, Jean
8/34	Show Boat	1936	46.65	Musical	Jones, Allan
9/281	Iron Duke	1935	45.68	Historical drama	Terriss, Ellaline
10/9	Love Me Forever	1935	44.71	Musical/opera	Carrillo, Leo
11/379	Sanders of the River	1935	43.83	Empire drama/adventure	Banks, Leslie
12/103	Dark Angel	1935	42.73	Romantic melodrama	Oberon, Merle
13/154	Ghost Goes West	1936	41.60	Comedy fantasy	Parker, Jean
14/7	Follow the Fleet	1936	41.41	Musical romantic comedy	Rogers, Ginger
15/3	Swing Time	1936	40.95	Musical romantic comedy	Rogers, Ginger
16/206	Things to Come	1935	40.65	Futuristic drama	Richardson, Ralph
17/237	The 39 Steps	1935	40.20	Comedy crime drama	Carroll, Madeleine
18/97	Clive of India	1935	39.41	Historical biography	Young, Loretta
19/234	Escape Me Never	1935	39.01	Romantic melodrama	Sinclair, Hugh
20/10	David Copperfield	1935	35.50	Historical literary adaptation	Barrymore, Lionel

Note: ^a British studio production
Sources: *Variety*, *Kine Weekly*

it is notable that certain generic and star characteristics have multiple representation in these lists, with the Astaire/Rogers musical comedies particularly popular in both markets.⁶² Other features common to both markets are the frequency of films that are set in the past, the prominence of British historical/British empire/military-type subjects, and the wide-ranging appeal of musicals, including operettas. In addition to Fred Astaire and Ginger Rogers (two films), and Clark Gable (three films), Irene Dunne, Myrna Loy, Grace Moore, William Powell, and Jeanette MacDonald all appear more than once on the US lists, while Robert Donat appears in two British-made British top 20 films, and Fredric March and Merle Oberon appear once in a different film in each list.⁶³ Thus, there is some evidence to suggest that the production of hit films may not be a purely random process, although it is also clear that there is no simple and stable formula for their production.

The already noted asymmetry between the performance of British and American films in the other's market is also apparent from table 3. While all of the top 20 films in the US chart emanate from Hollywood, British films take only seven of the top 20 berths in the British chart. Furthermore, nine Hollywood films are common to both lists, with the remaining four Hollywood-made British top 20 films occupying ranks 23, 34, 103, and 97 in the US charts. In contrast the seven British films featured in the British top 20 were—in the order in which they appear—ranked 104, 281, 379, 154, 206, 237, and 234 in the US. Although British audiences perceived these seven British films to be outstanding productions, American audiences indubitably did not. Indeed, this sentiment seems to be true of British productions as a whole since, of the 75 films released on to the US market during this period, the highest rank, 104, was that achieved by *The Scarlet Pimpernel*, while the median-ranked British film title took the 751st berth. For all of the corporate energy Gaumont British expended on the US market during this period, the returns from the 32 films it marketed through its own distribution company were meagre, with a top rank of 228 (*It's Love Again*) and a mean rank of 583.

VI

In order to understand the relative lack of success that British producers experienced in the US, it is important to recognize that in the mid-1930s British producers were entering an established, mature, and dynamic market, and it can be argued that they greatly underestimated the commitment that was required to achieve success in this market. US producers had a well-defined market presence, built up over a considerable period of time, and had developed a range of evolving film-making strategies. In particular,

⁶² For an assessment of the life cycle of the Astaire/Rogers films see Sedgwick, *Popular filmgoing*, ch. 9.

⁶³ None of Shirley Temple's eight films made the top 20 lists, although she was shown later to be a top star and had four top 50 successes in the US.

in releasing upwards of 50 films annually throughout the 1930s, each of the major Hollywood studios had developed a scale and breadth of film production that was almost overwhelming within the context of the activities of their British counterparts.

However, this is not to suggest that consumer tastes were so well understood and predictable that US producers could produce hit films at will. The process was still subject to considerable levels of uncertainty, and strategies had to be developed to attenuate the risks associated with film production. Thus, while it would generally be accepted that the size of a film's production budget has a bearing on the creative and logistical flexibility for making a film that might be expected to become a hit—a positive relationship would be expected between production budgets and revenues—a closer examination of the relationship between the size of production budgets and the revenues (and producer profits) earned by films reveals a much more complex set of relationships. The sub-text here is that, typically, audiences are attracted by the promise of spectacle, high-salary charismatic performers, and visibly expensive production values (as opposed to the rare, but hugely profitable, low/modest-budget 'sleeper' hit).

Figure 3 shows a scatter of US distributor rental incomes against production costs, in constant 1929 prices, for the 1,796 films distributed by MGM, RKO, and Warner Bros. for which production cost data are available, over the period 1930 to 1942.⁶⁴ Thus, while there was certainly a broad tendency for rental incomes to increase with production budgets, the more notable characteristic of figure 3 is the increasing instability of this relationship as production budgets increased—revenues became increasingly variable as the production budget rose. The consequences of this instability are reflected in a scatter of distributor profits generated in the US market against production budgets, shown in figure 4, where the loss-making potential of high budget films can be seen directly (for contextual purposes a number of the more prominent film titles are also indicated). Indeed, of the 10 most expensive films produced over the period, eight made losses, and in most cases very substantial losses. These 10 films were all released in the latter half of the 1930s, a decade during which the real average production costs of films doubled as producers sought to capture market share with films of ever increasing production values, within a market that was experiencing strong growth after the impact of the depression—real consumers' expenditure on movie going increased by 40 per cent between 1932 and 1940.

⁶⁴ The dataset consists of 1,861 films, and production cost data are available for 1,796 of these. For a detailed description of the ledgers from which the data were extracted, see Glancy, 'MGM'; *idem*, 'Warner Bros.'; Jewell, 'RKO'. For the films produced by RKO and MGM the ledgers also provide data for profits/distribution costs and hence the figure for profits generated by these films was available. In the case of Warner Bros., film profits were not available, and these were estimated on the basis of the close relationship between distribution costs and the revenue and cost data in the RKO and MGM dataset. For a fuller description of the estimation methodology employed, see Pokorny 'Hollywood and the risk environment', app. 10.1. The profits and revenue data used here relate to profits and revenues generated in the US market only.

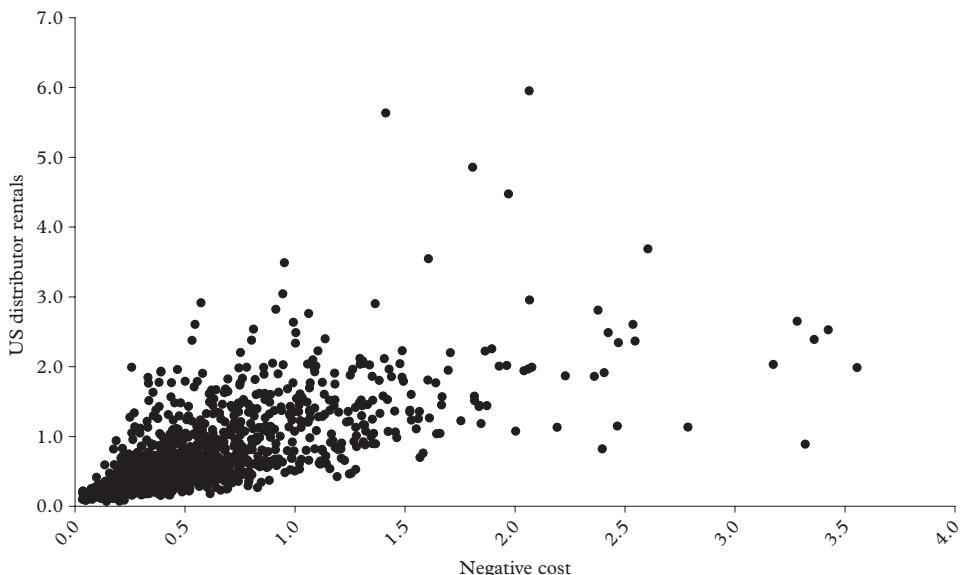


Figure 3. *Scatter plot of distributor rentals against film costs, 1929/1930–1941/1942*

Note: All figures are in millions of US dollars, at 1929 prices.

Source: See text

However, this expansion in production budgets was presumably also encouraged by the exhibition arms of the majors, given that their objective was to exhibit films that attracted large audiences and therefore yielded large revenues. Huettig has argued that it was the exhibition arms that controlled the ‘purse strings’;⁶⁵ two-thirds of the total capital of the majors was invested in theatres during the 1930s, and thus a film that may not have been profitable for producers might still have generated sufficient demand from exhibitors to make exhibition worthwhile. Thus, while eight of the ten most expensive films featured in figures 3 and 4 lost money for the production wing of the studio, they were by no means unpopular. Eight of these films achieved ranks of between 1 and 6 in the resulting domestic revenue distributions of their respective release years (although revenue distributions are restricted here to the films released by MGM, RKO, and Warner Bros., of which there was an annual average of 145 films over this period). Of course, the ideal was a film that generated profits for both production and exhibition, and from figure 4 such films can be seen to have had relatively modest budgets. Indeed, virtually all of the high profit films had production budgets of less than \$2 million, with many costing less than \$1 million. Although many of the high budget films were not profitable, most were critically acclaimed, and so, at least artistically, were considered successful. Further-

⁶⁵ Huettig, ‘Economic control’, p. 291.

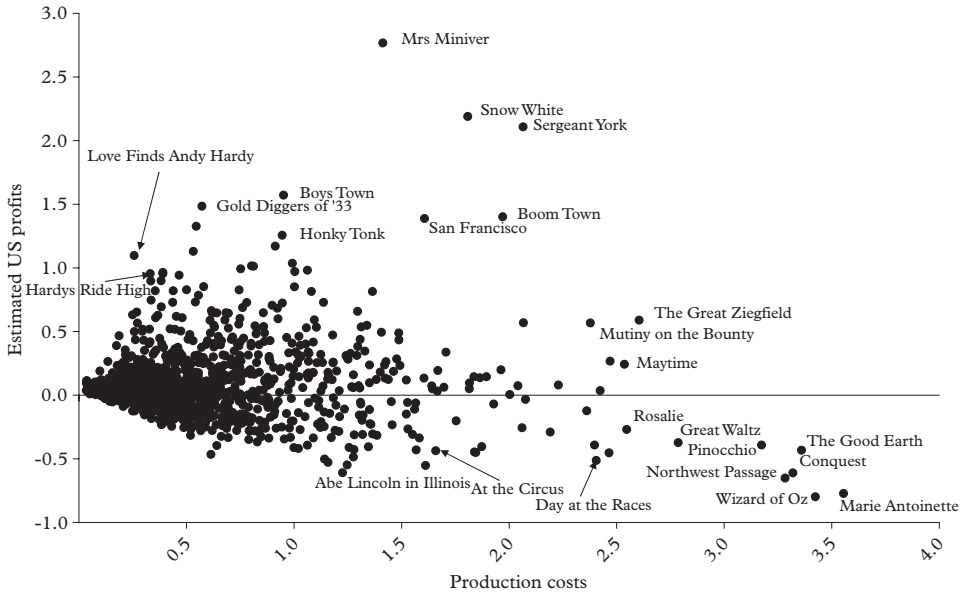


Figure 4. Scatter plot of US profits against film costs, 1929/1930–1941/1942

Note: All figures are in millions of US dollars, at 1929 prices.

more, the studios channelled considerable R&D expenditure into these showcase films in the backing-a-hunch/serendipitous search for artistic innovation, from which new, influential lineages sometimes emerged and, with them, a competitive advantage.⁶⁶

⁶⁶ In Hollywood at this time, R&D operated in three tiers. The first was at industry level, in which the technical departments of the studios, often in collaboration, engaged in research the results of which would benefit all studios in improving the visible and audible quality of the product. The little-known history of this research is encapsulated in the citations for the Scientific or Technical 'Oscar' Awards, which started with the ceremony of 1930–1, and continue to this day. The existence and scope of this research adds to the evidence that Hollywood was, and is, an industrial structure in a way in which no other film industry has been.

The second tier was at studio level. The 'majors' invested extensively in permanent outdoor sets: house/shop exteriors, village/town/city streets, harbour quays, miniature jungles, and so on. MGM and Warner Bros. had permanent theatre sets, with a stage and fully seated auditorium, and custom-built facilities for all manner of lighting effects and camera movements. All these assets could be rented by other studios and independent producers; for example, Paramount used Twentieth Century Fox's railway station in *White Christmas* (1954).

The third tier was at the level of a particular (big-budget) film. For *The Great Ziegfeld* (MGM, 1936), a very large revolving turntable stage was constructed—the biggest in the world, according to studio publicity—on which a tall helicoidal stairway was built to accommodate dozens of singers and dancers. The whole was concealed under a massive curtain, railed and threaded so that for the reveal it furled as the inverse of the structure. The whole set was seen again as footage in *Ziegfeld Girl* (MGM, 1941), with cut-in shots of Judy Garland performing on top of it. For *Sweethearts* (MGM, 1938, in Technicolor), the turntable supported a hillside path, the curtain disclosing Jeanette MacDonald and Nelson Eddy, who sing their way down as the curtain slowly descends. Their audience is seen singing along in a reverse shot, which, not by accident, shows MGM's theatre auditorium to great advantage. Slightly modified, the curtain is seen in *Lady Be Good* (MGM, 1941), its moving folds choreographed as a 'partner' in one of Eleanor Powell's dance routines.

Nevertheless, the extent to which such experimentation was undertaken could be justified only within the context of the overall profitability of film production. It is useful to interpret this process as one of the construction of an annual film portfolio, with the objective of maximizing the rate of return on this portfolio, and with risk taking being justified within the context of the studios being able to cross-subsidize within the portfolio. With MGM, RKO, and Warner Bros. each producing between 30 and 60 films annually during the 1930s, these annual film portfolios took on quite complex structures, in terms of the spread of film genres, the allocation of actors and directors across the portfolio, and the wide range of production budgets that were utilized. Considering just one dimension of these portfolio structures—the variation in production budgets—an insight can be gained into the evolving nature of the strategic responses made by the studios over the decade. Thus, the studios could be interpreted as each year having constructed a portfolio of films, consisting of low, medium, and high budget films (broadly, ‘B’, ‘A’, and ‘super A’ films). The key strategic decision was the allocation of production resources to each of these budgetary categories. Low budget films tended to be consistently profitable, given the relatively low levels of demand they needed to achieve to cover costs, but generated only relatively modest levels of profit and hence made limited contributions to annual profit targets. High budget films, on the other hand, had the potential to generate very high levels of demand and hence profits, and consequently a small number of successful high budget films could dominate profit distributions, both at a point in time and over time. An outstanding example of this is the two high budget musicals that Warner Bros. produced in the 1932/33 season—*42nd Street* and *Gold Diggers of 1933*. These two films accounted for just 7.5 per cent of Warner’s aggregate production budget for the season, but generated 31 per cent of the season’s US profits. An even more extreme example was that of RKO and the success it experienced with its Fred Astaire and Ginger Rogers musicals, eight of which were released between 1933/34 and 1937/38. These were all relatively high budget films, and in total cost \$7.4 million to produce (in 1929 prices), generating aggregate profits in the US of \$4 million, a level of profits that exactly matched the aggregate profits generated by all 332 low budget films that RKO produced between 1929/30 and 1941/42. However, equally, one or two unsuccessful high budget films could produce losses such as to wipe out the aggregate profits that were generated by any number of more modestly costed film projects. For example, in the 1937/38 season MGM produced two high budget films—*Marie Antoinette* and *Conquest*—that absorbed 19 per cent of that season’s total production budget but jointly produced losses in the US of \$1.4 million, within a context in which the 16 medium budget films that MGM produced during the season generated profits of \$2.7 million.

As is clear from figures 3 and 4, the general picture that emerges is one of a volatile production environment, with large variations in profitability

both within and between years. Of the 1,796 films shown in figure 4, one-third made losses in the US market. In terms of the high budget films (which accounted for just 19 per cent of all films produced), 43 per cent generated losses, with just 26 per cent of low budget films making losses.⁶⁷ However, the attraction of high budget production was the potential it offered for generating substantial profits—over half of the profits generated by all 1,796 films were generated by the 194 profitable high budget films. The downside was that high budget production was the source of most of the losses generated—the 145 loss making high budget films accounted for over half of all film losses. Thus not only was it necessary to accept that within a season some film projects would inevitably make losses, and sometimes very large losses, but there was also the possibility that entire seasons might be unsuccessful. The key was to achieve an appropriate mix between innovative yet risky film projects and more modest, safer projects. There were no obvious formulae for producing hit films, in the sense of such formulae being stable over time. Certainly there were particular genres or narrative themes that achieved marked success at various points in time—the Warner Bros. musicals in the early 1930s offered one example—but audiences soon tired of these as successful innovations emerged. The simple allocation of large production budgets was not even a necessary, let alone a sufficient, condition for financial success. Nevertheless, ‘playing safe’ was also not an option, and risk taking was integral to the process.

A further potential barrier to entry for British producers to the US market was the degree of monopoly power exercised by the major Hollywood studios. From table 3 it is evident that certain studios were responsible for more than one top ranking film, with MGM, RKO, and Columbia prominent in both lists, but joined in the British section by the British studios, Gaumont British and London Films. Indeed, it is tempting to frame Hollywood analytically in terms of the industrial organization literature on monopoly power: that is, as a Cournot-type oligopoly in which the incumbents formed realistic *ex ante* expectations about the factor input quality and the quantity of product released on to the market by rivals and competed accordingly.⁶⁸ Table 4 reports industrial concentration statistics.⁶⁹

⁶⁷ A high budget film, in any given year, is here defined as a film whose production budget exceeded the average production budget of all the films distributed by the three studios in that year by 50% or more. Medium budget films were those that fell within the range of 75 to 150% of the average cost of all films produced in the season, and low budget films were those costing less than 75% of average cost. Note that these budgetary categories are defined in relative rather than absolute terms—they are defined relative to the average production budget in any given year. That is, it would be inappropriate to use absolute cost criteria—the (real) cost of a high budget film in the early 1930s was markedly different from the cost of a high budget film in the late 1930s, given the increase in average production budgets over the decade. Such a partition produced 339 high budget films, 573 medium budget films, and 884 low budget films over the sample period.

⁶⁸ Martin, *Industrial economics*.

⁶⁹ The market shares reported in tab. 4 are strikingly similar to those for 1939, published by Huettig, ‘Economic control’.

Table 4. *Market shares in the US and Great Britain in the mid-1930s*

	<i>Films</i> (1)	<i>Total Revenue</i> (US\$) (2)	<i>Average revenue</i> (US\$) (3)	<i>Coefficient of variation</i> (4)	<i>Percentage revenue share</i> (5)	<i>Percentage share squared</i> (6)
US						
Columbia	91	8,303,227	91,244	1.62	6.86	47.00
MGM	110	23,939,339	217,630	1.01	19.77	390.69
Paramount	131	19,539,464	149,156	0.90	16.13	260.27
RKO	82	13,366,878	163,011	1.34	11.04	121.81
TCF	107	16,910,144	158,039	0.86	13.96	194.94
Universal	69	6,444,183	93,394	1.26	5.32	28.31
WB	124	17,124,359	138,100	0.93	14.14	199.91
Total 'A' studios	714	105,047,394	147,125		86.73	1,242.93
Others	255	16,067,219	63,009		13.27	
Total all studios	969	121,114,613	124,989		100.00	1,260.37 ^a
Great Britain		<i>Total POPSTAT</i>	<i>Average POPSTAT</i>			
Columbia	75	546.05	7.28	1.13	5.99	35.84
GB/Gains	41	667.88	16.29	0.55	7.32	53.62
London Films	9	258.87	28.76	0.54	2.84	8.06
MGM	94	1,116.98	11.88	0.83	12.25	149.99
Paramount	123	1,221.47	9.93	0.75	13.39	179.36
RKO	82	696.44	8.49	1.09	7.64	58.31
TCF	91	782.30	8.60	0.64	8.58	73.57
Universal	55	372.75	6.78	1.05	4.09	16.70
WB	107	865.23	8.09	0.67	9.49	90.00
Total 'A' studios	677	6,527.97	9.64		71.57	665.46
Others	536	2,592.51	4.84		28.43	
All studios	1213	9,120.47	7.52		100.00	692.34 ^a

Notes: ^a the Herfindahl-Hirschman Index

The US data are for the period Oct. 1934 to Oct. 1936. The British data are for the years 1935 and 1936.

Sources: US data: *Variety*; British data: Sedgwick, *Popular filmgoing*, derived from *Kine Weekly* information.

They are notable on two counts. First, the pattern of Hollywood studio penetration in the US market is replicated, albeit at a lower level, in the British market. Second, the degree of industrial concentration when measured by the Herfindahl-Hirschman Index (HHI) does not suggest significant levels of monopoly power for which, since the 1984 merger guidelines of the Federal Trade Commission, the threshold value of 1,800 has been used as an indicator of excessive market power, while measures under 1,000 are indicative of no market power of significance.⁷⁰ None the less, there was certainly a perception, particularly among smaller independent exhibitors and pursued by the Department of Justice, of the major studios exploiting their monopoly power during the 1930s, via their practice of block booking and blind selling.⁷¹ Indeed, so strong and persistent was this perception that it resulted in the Paramount Decree of 1948, forcing the major studios to divest themselves of their cinemas. This would suggest that the market

⁷⁰ Coate and McChesney, 'Enforcement'.

⁷¹ See *Hearing before a subcommittee*.

power exercised by the majors was somewhat greater than that implied by the relatively modest levels of the HHIs in table 4. However, subsequent re-evaluations of the Paramount Decree have argued that the industry practices on which it focused, rather than being anti-competitive, were in fact rational solutions to complex industrial organizational problems, with mutual advantages for studios and exhibitors.⁷²

These results are perhaps surprising given the extent of vertical integration in both markets, the highly differentiated nature of the product by which producers deliberately set out to influence demand, and the ability of audiences to form qualitative *ex ante* expectations and hence make rational choices between the products following release.⁷³

While it was the case that both markets were dominated by a small number of firms, with MGM and Paramount the market leaders in both markets, audiences were not influenced as much by the studio's trademark as they were by the anticipated pleasures promised by any single film. Evidence of the wide variance of box-office performance of films from each of the principal studios is given by the coefficient of variation statistics in table 4, and further reinforced by figure 3, which reflects the revenue performance of three of the majors over the decade. If it is assumed that the size of a film budget signalled a studio's conception of each film as an investment vehicle, and hence an imputed target revenue, then the variance of the revenues of films from that imputed value would be significantly greater than zero only if the audience's perception of film quality differed from the studio's conception of it. From figure 3 it is apparent that the heteroscedastic spread of revenues across the cost categories implied that there were marked differences between audience perception and producer conception, exhibiting the producer's nightmare trend that variance increased with production cost.⁷⁴ Even in the heyday of the studio system, risk was an integral part of film production. Indeed, the marked instability of revenues over time and between and within cost categories suggests that Hollywood should be perceived as an industry structure predicated upon the attenuation of risk.

As argued above, the key to this instability was the short revenue-earning life of individual film products. Thereafter, for almost all titles, existence as a commodity ended. In the US sample, based on the returns from *Variety* of the 969 films released during the 25 months of the investigation, only 25 were re-issues of 'hit' films from previous years, and none of those received more than a few exhibition dates in the sample set of cinemas. The record

⁷² In 'Motion picture antitrust', De Vany and Eckert come to this conclusion in their analysis of the impact of the Paramount divorcement case of 1948 on the subsequent history of the studio system. It is also a conclusion consistent with Hanssen's work on block booking: see Hanssen, 'Block booking of films'.

⁷³ This is an example of what Sutton has termed a stage II type industry, in which one would expect industrial concentration to increase as the market size increases: Sutton, *Sunk costs*.

⁷⁴ For a fuller discussion of these issues in the case of Warner Bros. in the 1930s, see Sedgwick and Pokorny, 'Risk environment'.

Table 5. Top 20 ranking stars by box-office in the US market between October 1934 and October 1936

Rank	Star	Studio	Films	Box-office revenue (US\$)	Star market share ratio	Cumulative star market share ratio	Mean box-office revenue (US\$)	Top 10 films	Top 20 films	Top 100 films	Top 200 films	Re-releases
1	Clark Gable	MGM	9	5,202,745	0.043	0.043	578,083	2	3	7	9	4
2	Astaire/Rogers	RKO	5	4,486,950	0.037	0.080	897,390	4	5	5	5	0
3	Fredric March	various	8	4,060,066	0.034	0.114	507,508	1	1	7	8	1
4	William Powell	MGM	8	3,571,750	0.029	0.143	446,469	1	2	4	8	1
5	Shirley Temple	TCF	8	3,456,950	0.029	0.172	432,119	0	0	5	8	0
6	Claudette Colbert	various	7	2,940,650	0.024	0.196	420,093	0	0	5	7	2
7	Warner Baxter	TCF	8	2,864,900	0.024	0.219	318,322	0	1	3	6	1
8	Gary Cooper	Paramount	7	2,770,300	0.023	0.242	395,757	0	1	3	7	2
9	Jean Harlow	MGM	6	2,730,100	0.023	0.265	455,017	0	1	4	6	0
10	Jeanette MacDonald	MGM	4	2,699,600	0.022	0.287	674,900	1	2	4	0	0
11	Joan Crawford	MGM	5	2,477,395	0.020	0.308	495,479	0	1	5	5	2
12	James Cagney	WB	7	2,310,300	0.019	0.327	330,043	0	1	3	5	2
13	Irene Dunne	various	5	2,302,116	0.019	0.346	460,423	1	1	3	4	1
14	W.C. Fields	Paramount	6	2,108,850	0.017	0.363	351,475	1	1	2	4	0
15	Will Rogers	Fox	6	2,016,350	0.017	0.380	336,058	0	0	3	3	2
16	Katharine Hepburn	RKO	6	1,996,516	0.016	0.396	332,753	0	0	3	3	0
17	Grace Moore	Columbia	3	1,926,350	0.016	0.412	642,117	1	2	3	3	1
18	Bing Crosby	Paramount	5	1,826,333	0.015	0.427	365,267	0	0	2	5	0
19	Miriam Hopkins	various	5	1,797,700	0.015	0.442	359,540	0	0	3	5	0
20	Ronald Colman	TCF	4	1,655,500	0.014	0.456	413,875	0	0	3	4	0

Notes: The revenue values are derived by summing the box-office performance of the films in which the star is first or second billed, but do not include re-release revenues, which in all cases were relatively very small in comparison to new releases. The studio column refers to the studio that held the star's contract. In the case of a 'various' entry the star worked on a freelance basis.

Source: *Variety*

of re-issues in Great Britain was similar. More significant for this investigation was the speed with which the films played through the first-run cinemas. Thus, for any given week the market distribution of revenues was highly skewed, with a small number of films doing the bulk of business. But, as today, the velocity of circulation was considerable, with most films passing through the sample set of cinemas within two months of release on to the American market.⁷⁵ The consequence of this was that the configuration of demand was forever changing, in a manner that could not be known *ex ante*, while the general level of demand for films—the number of people regularly looking forward to ‘going to a movie’, but not just any movie—was stable.

However, the development of stars provided a focus for at least reducing the risk associated with any film project. In bringing an identifiable characteristic to a film product that was widely admired and emulated, stars served as a kind of security. While film products were short-lived as commodities, their stars were influential, and more durable, ‘marker’ commodities. For instance, during the 25 months of the US sample the top five ranking stars listed in table 5—Clark Gable, Fred Astaire and Ginger Rogers (treated as a single star), Fredric March, William Powell, and Shirley Temple—appeared respectively in nine, five, eight, eight, and eight films.⁷⁶ Between them, films featuring the top 20 ranked stars accounted for 46 per cent of the market revenue in the US. But stars could be developed only via repeated exposure to audiences, and a studio’s annual film portfolio provided an ideal vehicle for such exposure. It may have taken a studio a number of seasons to develop a star, with actors being distributed throughout the portfolio from season to season, and a small number emerging as having developed ‘star qualities’ as perceived by audiences. This provided a further rationale for studios employing diversified film portfolios—the more widely diversified the portfolio, the more likely it was that stars could be identified and developed. Certainly within the British context British stars had emerged and had been developed, and they included Robert Donat, Jack Hulbert, Leslie Howard, Leslie Banks, Anna Neagle, Jack Buchanan, Merle Oberon, Jessie Matthews, Ralph Lynn, Will Hay, and Gracie Fields. However, given the limited engagement of British producers with the US market, these stars were virtually unknown to American audiences.⁷⁷

VII

The film industry is an interesting and early example of an industry catering to mass consumer tastes. During the interwar period, it was by far the most

⁷⁵ Unlike the practice in the US, where films were released more or less simultaneously across the 31 exchanges, the London West-End cinemas showcased major productions for between one and three months prior to their general release, presumably allowing distributors time to estimate the number of prints and volume of publicity materials required.

⁷⁶ A similar table of top ranking stars in the British market can be found in Sedgwick, *Popular filmgoing*, tab. 9.2.

⁷⁷ On the economic rationale for the development of stars, see also Bakker, ‘Stars and stories’.

popular paid-for-leisure activity on both sides of the Atlantic. Furthermore, from the record of its diffusion rates in both countries, film was not only equally popular in Britain and the US, but, as important, it was equally accessible and affordable, and in this it differed from many other consumer products.⁷⁸

Because, during the studio system, films from the same studio had a great many of its infrastructural production inputs in common it would not have been the case that 'In effect each movie [was] a separate firm, with its own profit statement', as Weinstein has suggested when analysing the very different contractual arrangements associated with film making during the post-studio period. Nevertheless, it certainly was (and remains) the case that each film had its own demand curve.⁷⁹ However, as is clear from figures 1 and 2, although the market share of the top ranking films was many times greater than that of the median ranked film, the contribution made by the leading films was relatively low, with the top 20 films—more or less the annual top 10 films of each of the datasets—contributing approximately 10 per cent of the market. In other words, 90 per cent of the annual revenue in each market was generated by films outside the top 10.⁸⁰

The market for films was one in which audiences were drawn in very large numbers to make choices between the many attractions on offer to them. Crucially, however, audiences soon became weary of any particular film product—even the most popular. Thus, in the absence of yet-to-be alternative commodity-resuscitating/life-extending media such as video, television in its various forms, and computers, films had brief life cycles. The two datasets used in this study provide an unparalleled source of information concerning the week-by-week changes, in each national market, in the configuration of what films were playing where, and for whom.

In this environment of changing audience taste for particular styles of film and the stars who appeared in them, the principal vertically integrated studios of Hollywood were making approximately 50 films per annum during the middle years of the 1930s. This heavy investment in film products required strategies for the attenuation of the risk inherent in being committed to launching so many new products annually. Clearly, the studios attempted to influence demand for their product through their own marketing, publicity, and production departments. In addition, from tables 3 and 5 it is apparent that particular stars and genres were important markers of quality. It is further argued that R&D expenditure was an important element of cost in big budget films as studios competed to differentiate their products qualitatively and create new aesthetic, narrative, and phonic fashions for filmgoers. Elsewhere, we have shown how studios spread their risk

⁷⁸ See Bowden and Offer, 'Household appliances'.

⁷⁹ Weinstein, 'Profit-sharing contracts', p. 79.

⁸⁰ During the studio period (1925 to 1950) the contribution to total revenue made by the 'hit' films of the season was much smaller than was the case during the post-studio era: Sedgwick, 'Product differentiation', tab. 4.

through configuring their annual product in the manner of an investment portfolio.⁸¹

The industry was geared to guaranteeing supply, while responding to revenue-sensitive variations in audience preferences. In its efforts—largely successful—to dominate the supply of films on a global scale, Hollywood early in its history understood the politico-cultural, as well as the economic, efficacy of having its own trade association through which self-interested domestic and foreign policies could be, and are, vigorously pursued.⁸²

The British market for films was extremely important for Hollywood producers.⁸³ However, while Hollywood films dominated the British market and were an integral part of the experience of filmgoing in Britain, British films made little impact in the US, and never achieved an analogous status in the reckonings of American filmgoers, an asymmetry which made it extremely difficult for British producers to make films of comparable input quality, although it would seem that where they did, British audiences were appreciative. Given the preparedness of US exhibitors to take potentially high revenue generating films from various sources, it is likely that the relative lack of success of British films in the US market can be explained at least in part in terms of cultural barriers on the part of US audiences. However, it could also be argued that British producers had little understanding of the dynamic nature of the US market and its cultural characteristics. In section VI the broad range of the annual film portfolios that were released by MGM, RKO, and Warner Bros. during the 1930s was emphasized, and the attempts by British producers to break into the US market must be evaluated within this context.

Thus, while Gaumont-British made strenuous efforts to break into the US market, via the release of 32 films between 1934 and 1936,⁸⁴ such a commitment, for such a relatively short period of time, is almost insignificant within the context of annual film production activities of the majors. By releasing some 50 films per season, not only did each of the majors place a wide variety of outputs before its potential audiences, but its understanding of its market also evolved over time and its film-making strategies developed accordingly. It may well be the case that US audiences were culturally resistant to British films, but they were exposed to these films for such a short period that there was little chance of these cultural barriers breaking down. However, just as importantly, British producers had little opportunity to develop a deeper understanding of the nature of US audiences and therefore to formulate appropriate and consistent film-making strategies. Finally, to the extent that stars were important markers of quality, British producers had no opportunity to establish a roster of non-parochial,

⁸¹ Pokorny and Sedgwick, 'Stardom'; Sedgwick and Pokorny, 'Risk environment'.

⁸² Jarvie, *Hollywood's overseas campaign*; Trumbour, *Selling Hollywood*; Ulf-Møller, *Hollywood's film wars*; Vasey, *World*.

⁸³ Glancy, *When Hollywood loved Britain*.

⁸⁴ See Sedgwick, *Popular filmgoing*, tab. 10.3.

'international' stars, given their brief engagement with the US market. To compound this predicament, the pool of talented, ambitious British film actors was trawled for those with 'international' potential by the Hollywood studios' talent spotters, and their 'catches' were shipped across the Atlantic for the grooming and exposure that the home industry could not provide.

It is this asymmetric performance of British films that forms the basis of Jarvie's claim about the parasitic nature of the British industry: that in the absence of Hollywood the market space in which the British industry developed during the 1930s would have been much reduced. It is true that the market share statistics in table 4 show that two British studios—Gaumont British and London Films, both of which marketed their products in the US—had between them a 10 per cent share of the British market during the mid-1930s, achieving high levels of recognition and popularity for their products among domestic audiences. Indeed, both the distributor and exhibitor quota was exceeded by some margin for each year between 1930 and 1936, providing further evidence that British films were genuinely popular with British audiences.⁸⁵ In attempting to break out of the strait-jacket of the domestic market, the two companies helped to establish a commercial framework for a new British industry during the 1930s. However, their failure to make a significant impact in the US meant that ultimately they were dependent on the home market, along with other, less ambitious, British producers, competing with their larger, more highly resourced, rivals from Hollywood.

London Metropolitan University
University of Westminster

First submitted

25 June 2003

Revised version submitted

7 May 2004

Accepted

18 October 2004

⁸⁵ Low, *Film making*, tabs. 5 and 6. Low reports that in the 1935–6 season, when distributor and exhibitor quota obligations accounted for 20% of all footage, the Board of Trade registered the actual volume of British films as 26.6% and 27.4% respectively, figures that confirm the POPSTAT estimates found in Sedgwick, *Popular filmgoing*, tab. 4.4.

Footnote references

- Bakker, G., 'Stars and stories: how films became branded products', *Enterprise & Soc.*, 2 (2001), pp. 461–502.
- Bakker, G., 'The decline and fall of the European film industry: sunk costs, market size and market structure, 1890–1927', *Working Pap. Econ. Hist.*, 70 (2003), Department of Economic History, London School of Economics, <http://www.lse.ac.uk/collections/economicHistory/pdf/wp7003.pdf>
- Balio, T., *Grand design: Hollywood as a modern business enterprise* (Berkeley, 1993).
- Besas, P., *Inside 'Variety': the story of the bible of show business, 1905–87* (Madrid, 2000).
- Bianchi, M., 'The taste for novelty and novel tastes', in *idem*, ed., *The active consumer: novelty and surprise in consumer choice* (1998), pp. 64–86.
- Bordwell, D., Staiger, J., and Thompson, K., *The classical Hollywood cinema: film style and mode of production to 1960* (1985).
- Bowden, S. and Offer, A., 'Household appliances and the use of time', *Econ. Hist. Rev.*, XLVII (1994), pp. 725–38.

- Browning, H. and Sorrell, A., 'Cinema and cinema-going in Great Britain', *J. Roy. Stat. Soc.*, 117 (1954), pp. 133–65.
- Coate, M. and McChesney, F., 'Enforcement of the US merger guidelines', *Econ. Inquiry*, 30 (1992), pp. 277–93.
- Conant, M., *Antitrust in the motion picture industry* (Berkeley, 1960).
- Dimsdale, N., 'British monetary policy and the exchange rate', *Oxf. Econ. Pap.*, 33 (1981), pp. 306–49.
- Eyles, A., *The Granada Theatres* (1998).
- Film Daily Yearbook*, 1934 to 1937.
- Glancy, H. M., 'MGM film grosses, 1924–1948: the Eddie Mannix ledger', *Hist. J. Film, Radio & Television*, 12 (1992), pp. 127–44.
- Glancy, H. M., 'Warner Bros. film grosses, 1921–1951: the William Schaefer ledger', *Hist. J. Film, Radio & Television*, 15 (1995), pp. 55–74.
- Glancy, H. M., *When Hollywood loved Britain* (Manchester, 1999).
- Gomery, D., *Shared pleasures: a history of movie presentation in the United States* (1992).
- Greenwald, W., 'The motion picture industry: an economic study of the history and practices of a business' (unpub. Ph. D. dissertation, New York Univ., 1950).
- Hanssen, F., 'The block booking of films re-examined', *J. Law & Econ.*, 43 (2000), pp. 395–426.
- Hanssen, F., 'Revenue-sharing in movie exhibition and the arrival of sound', *Econ. Inquiry*, 40 (2002), pp. 380–402.
- Hearing before a Subcommittee of the Committee on Interstate and Foreign Commerce, House of Representatives, Seventy Fourth Congress, on Bill to Prohibit and to Prevent the Trade Practices Known as 'Compulsory Block-Booking' and 'Blind Selling' in the Leasing of Motion Picture Films in Interstate and Foreign Commerce* (Washington D.C., 1936).
- Hoskins, C., McFadyen, S., and Finn, A., *Global television and film* (Oxford, 1997).
- Hoskins, C. and Mirus, R., 'Reasons for the US dominance of the international trade in television programmes', *Media, Cult & Soc.*, 10 (1988), pp. 499–515.
- Huettig, M., 'Economic control of the motion picture industry', in T. Balio, ed., *The American film industry* (Madison, 1985), pp. 285–310, abridged from a publication of the same title published by University of Pennsylvania Press (1944).
- International Motion Picture Almanac*, 1935–6; 1936–7; 1946–7.
- Izod, J., *Hollywood and the box-office* (1988).
- Jarvie, I., *Hollywood's overseas campaign: the North Atlantic movie trade, 1920–1950* (Cambridge, 1992).
- Jewell, R., 'RKO film grosses, 1929–1951: the C. J. Trevlin ledger', *Hist. J. Film, Radio & Television*, 14 (1994) pp. 37–51.
- Kinematograph Year Book*, 1927–1939.
- Kine Weekly Year Book*, 1927–38.
- King, B., 'Stardom as occupation', in P. Kerr, ed., *The Hollywood film industry* (1986), pp. 154–84.
- Klinger, B., *Melodrama and meaning: history, culture, and the films of Douglas Sirk* (Bloomington, 1994).
- Low, R., *Film making in 1930s Britain* (1985).
- McFadyen, S., Hoskins, C., and Finn, A., 'Measuring the cultural discount in the price of exported US television programs', in V. A. Ginsburgh, ed., *Economics of art and culture: invited papers at the 12th international conference of the Association of Cultural Economics International* (Amsterdam and Boston, 2004).
- Martin, S., *Industrial economics: economic analyses and public policy* (New York, 1988).
- Pokorny, M., 'Hollywood and the risk environment of film production in the 1990s', in J. Sedgwick and M. Pokorny, eds., *An economic history of film* (Abingdon, 2005), pp. 277–311.
- Pokorny, M. and Sedgwick, J., 'Stardom and the profitability of filmmaking: Warner Bros. in the 1930s', *J. Cult. Econ.*, 25 (2001), pp. 157–84.
- Rowson, S., 'The value of remittances abroad for cinematograph films', *J. Roy. Stat. Soc.*, 97 (1934), pp. 588–611.
- Rowson, S., 'A statistical survey of the cinema industry in Great Britain in 1934', *J. Roy. Stat. Soc.*, 99 (1936), pp. 67–129.
- Sedgwick, J., *Popular filmgoing in 1930s Britain: a choice of pleasures* (Exeter, 2000).
- Sedgwick, J., 'Product differentiation at the movies: Hollywood, 1946–65', *J. Econ. Hist.*, 62 (2002), pp. 676–704.
- Sedgwick, J. and Pokorny, M., 'The risk environment of film-making: Warners in the inter-war period', *Exp. Econ. Hist.*, 35 (1998), pp. 196–220.
- Sklar, R., *Movie-made America: a cultural history of American movies* (New York, 1975).
- Staiger, J., *Interpreting films: studies in the historical reception of American cinema* (Princeton, 1992).
- Stone, R. and Rowe, D., *The measurement of consumers' expenditure in the UK, 1920–38* (Cambridge, 1966).

- Street, S., *Transatlantic crossings: British feature films in the USA* (New York, 2002).
- Sutton, J., *Sunk costs and market structure* (Cambridge, Mass., 1991).
- Taylor, A. J. P., *English history, 1914–1945* (Oxford, 1965).
- Thompson, K., *Exporting entertainment: America in the world film market, 1907–1934* (1985).
- Trumbour, J., *Selling Hollywood to the world: US and European strategies for mastery of the global film industry, 1920–1950* (Cambridge, 2002).
- Ulf-Møller, J., *Hollywood's film wars with France: film-trade diplomacy and the emergence of a French film quota policy* (Rochester, NY, 2001).
- De Vany, A., *Hollywood economics* (2004).
- De Vany, A. and Eckert, R., 'Motion picture antitrust: the Paramount Cases revisited', *Res. Law & Econ.*, 14 (1991), pp. 51–112.
- De Vany, A. and Walls, W., 'Bose-Einstein dynamics and adaptive contracting in the motion picture industry', *Econ. J.*, 106 (1996), pp. 1493–1514.
- De Vany, A. and Walls, W., 'Uncertainty and the movie industry: does star power reduce the terror of the box office?', *J. Cult. Econ.*, 23 (1999), pp. 285–318.
- Vasey, R., *The world according to Hollywood, 1918–1939* (Exeter, 1997).
- Variety*, 1934 to 1936.
- Walls, W. D., Review of J. Sedgwick, *Popular filmgoing in 1930s Britain: a choice of pleasures*, *J. Cult. Econ.*, 27 (2003), pp. 298–301.
- Weinstein, M., 'Profit-sharing contracts in Hollywood: evolution and analysis', *J. Legal Stud.*, 27 (1998), pp. 67–112.
- Wood, L., *British films 1927–1939* (1986).

Official publications

- US Department of Commerce, Bureau of the Census, *Historical statistics of the US: colonial times to 1970* (Washington, DC, 1975).

CONTENTS

ARTICLES

PETER KING

*The production and consumption of bar iron in early modern
England and Wales*

JOERG BATEN AND RAINER SCHULZ

*Making profits in wartime: corporate profits, inequality, and GDP
in Germany during the First World War*

PETER J. ATKINS

*Fattening children or fattening farmers? School milk in Britain,
1921–1941*

JOHN SEDGWICK AND MICHAEL POKORNY

The film business in the United States and Britain during the 1930s

GEOFFREY JONES AND PETER MISKELL

*European integration and corporate restructuring: the strategy of
Unilever, c.1957–c.1990*

REVIEW OF PERIODICAL LITERATURE

DAVID PRATT, S. H. RIGBY, STEVE HINDLE, R. C. NASH, AND
DAVID M. HIGGINS

BOOK REVIEWS

Blackwell
Synergy 

This journal is available online at *Blackwell
Synergy*. Visit www.blackwell-synergy.com to
search the articles and register for table of
contents e-mail alerts.



0013-0117 (200502) 58:1;1-J