

Telefilm Canada Investment in Feature Films: Empirical Foundations for Public Policy

ADAM FINN, COLIN HOSKINS and STUART MCFADYEN

*Department of Marketing and Economic Analysis
University of Alberta**

L'investissement direct par Téléfilm Canada est l'approche contemporaine la plus importante qui est utilisée pour soutenir l'industrie du long métrage. Le but de cet article est de fournir les fondements empiriques en vue de guider l'investissement stratégique de Téléfilm Canada. Afin de donner du contexte pour l'analyse empirique, la logique de subvention gouvernementale est analysée en vue de déterminer les objectifs appropriés d'une telle stratégie. Notre analyse empirique a pour principal but de déterminer si de tels objectifs sont conflictuels, comme on le suppose souvent, et si par conséquence les politiciens font inévitablement face à des arbitrages difficiles. Nous concluons que tel n'est pas le cas en règle générale. Notre travail empirique illustre aussi l'opportunité pour le gouvernement fédéral d'orienter sa politique générale en direction des investissements directs et la négociation des traités internationaux de co-production, tout en s'éloignant des incitatifs fiscaux.

The most important current approach to supporting the feature film industry is through direct investment by Telefilm Canada. In this paper we set out to provide empirical foundations to guide Telefilm's investment strategy. To provide context for the empirical analysis, the rationale for government subsidy is analysed to determine the appropriate goals for such a strategy. Our empirical analysis is primarily designed to determine whether, as is commonly supposed, these goals are in conflict and hence policy-makers are inevitably faced with difficult trade-offs. We find that, generally speaking, this is not the case. Our empirical work also sheds light on the advisability of the Federal Government's general policy direction away from tax incentives and toward direct investment and negotiation of international co-production treaties.

Canadian feature film producers, like those in virtually every other country of the world, have difficulty competing against Hollywood (e.g., Pendakur, 1990). Canadian films obtain only a 3 per cent share of domestic box office with US films enjoying 95 per cent. English language Canadian films have the greatest difficulty competing. Many do not achieve theatrical distribution and, when they do, their box office is disappointing; only two English-language Canadian movies, *Dead Ringers* and *Black Robe*, have exceeded box office of

\$1 million in English Canada (Ellis, 1992: 100). Traditional explanations given for this long identified US dominance (Magder, 1993) have been media imperialism (Schiller, 1969) and market imperfection, associated with US control of Canadian distribution and a history of preferential relationships with major Canadian exhibitors (Pendakur, 1990; Gasher, 1992). However, another potential explanation is a US competitive advantage in product quality, perhaps stemming from the size of the US domestic market (Hoskins and McFadyen,

1991). US production and marketing budgets are typically far larger than Canadian.

The Canadian government has tried three main approaches to supporting the private film production industry; namely, tax incentives, direct investment, and international co-production treaties (Acheson and Maule, 1991). Over the last decade, the emphasis has switched from tax incentives to direct investment and support for international co-production.

A tax incentive, in the form of a special capital cost allowance (CCA) rate of 100 per cent, was in effect in 1974-87, with a right to apply the allowance as a deduction against taxable income generated from other sources introduced in 1978. Eligibility depended on the nationality of the key creative and technical personnel and of the investors, not the nature of the film produced or its box office performance. This measure has been criticized for 'failing to provide sufficiently "good" films or sufficiently "Canadian" films' (Bird et al., 1981). The CCA rate was reduced to 30 per cent in 1988, and was eliminated in 1995. The emphasis has switched from such tax incentives to direct investment and support for international co-production.

Secondly, direct financial support for production has been provided through Federal Government agencies, the Canadian Film Development Corporation, established in 1968, and its successor, Telefilm Canada. The level of direct support increased with the formation of Telefilm Canada in 1983 and again with the establishment of its Feature Film Fund in 1986. In the financial year 1994-95 Telefilm received a parliamentary appropriation of \$122 million. Its primary mandate is to invest, on a project by project basis, in independently produced feature films and television programs. Through the Feature Film Fund, Telefilm Canada invested \$13 million in the production of 22 feature films in 1994-95. The total production budget for these films was \$38 million. As less than 10 per cent is recouped, much of the Telefilm 'investment' is in essence a subsidy. Tele-

film also provides support for script development and film distribution. Many provincial governments have set up film funding agencies that have taken a similar direct investment approach, albeit on a smaller scale.

Thirdly, the Government of Canada, through the Department of Communications (now Canadian Heritage Department), has negotiated more than 30 international co-production treaties to encourage 'Canadian producers and their foreign counterparts to pool their creative, artistic, technical and financial resources' (Telefilm Canada, Action Plan, 1991:27). Co-production is viewed as an effective method of assembling the relatively larger budgets presumed necessary to produce films capable of competing with Hollywood. Films made under the auspices of a treaty qualify for Telefilm Canada investment and permit private Canadian investors to qualify for tax incentives at lower levels of Canadian content points than would otherwise be required (Hoskins and McFadyen, 1993). The treaties are administered by Telefilm Canada.

A fourth approach was considered but not acted upon. The National Film and Video Product Bill, which was introduced into the Canadian Parliament in 1987, proposed separating Canadian from US distribution rights for independently produced foreign films, but under US pressure was first watered down and then allowed to lapse. The inclusion of Canadian rights in North American rights has probably hindered development of a Canadian owned distribution industry and the predominant view, as expressed by Pendakur (1990), Harcourt (1989:81) and Gasher (1992), is that consequently Canadian films are disadvantaged. This contention has not gone unchallenged. Globerman (1991:191) argues that foreign (US) film distributors act in an efficient and competitive fashion with no bias against distributing commercially promising Canadian films. They have a financial incentive to seek out any Canadian film which would be commer-

cially successful.

In this paper we focus on the most important current approaches, direct investment (subsidy) by Telefilm Canada and encouragement of international co-productions. In particular, we set out to provide empirical foundations to guide Telefilm's investment strategy. Our empirical work will also shed light on the advisability of the Federal Government's general policy direction away from tax incentives and toward direct investment and negotiation of international co-production treaties.

To determine what empirical underpinnings are relevant to Telefilm's investment strategy we need first to examine the rationale for such support.

The Goals of Direct Support through Telefilm Canada

Telefilm Canada enumerates and explains its goals, and that of the Government of Canada, in its Annual Reports and Action Plans. It is evident that the objectives are both cultural and economic. For example, the *Annual Report 1986-87* (p.11), states 'while the primary objectives of the Fund are cultural, expenditures from the Fund contribute to employment and result in economic benefits'.

The cultural goal is expounded upon in the *Annual Report 1991-92* (p.7) where continued government support of feature films (and television programs) is attributed to the fact that they are 'unique expressions of a people's identity, as well as one of the most effective tools a nation can choose to spread its culture across the country and beyond its borders'. Subsidy on this ground is consistent with what economists call an external benefits rationale. The argument is that there are benefits to society as a whole (as opposed to direct benefits to the individual film goer) resulting from citizens being exposed to indigenous films with certain attributes. If this is the case, then there is market failure because film producers, distributors and exhibitors do not receive revenue for the provision of such external

benefits. Hence, without some form of government support, the private sector would supply less than an optimal quantity of such films.

The economic goal has been to create employment opportunities for as many Canadian creative and technical workers as possible, in what otherwise might be a non-existent indigenous film industry. Subsidy on this ground is perhaps consistent with what economists' call an infant industry argument. The argument is that an infant industry requires a subsidy so that small domestic firms can grow to the size necessary to be able to compete with their international rivals. The infant industry argument, however, assumes that the subsidy is temporary and will be withdrawn once an industry has been established.

In its Action Plans for both 1990-91 and 1995-96 Telefilm Canada operationalizes its cultural and economic goals through a long-term strategy to '1. Reach audiences; 2. Emphasize quality, originality and diversity' (*1990-91 Action Plan*, p.4). No conflict is seen in these goals. In fact Telefilm Canada claims that 'Productions that are distinctive and highly innovative provide the best opportunity for success in today's highly competitive environment' (*1990-91 Action Plan*, p.4). Thus, in administering the Feature Film Fund, priority is to be given :

to projects that have the highest proportion of Canadian creative elements, stories, themes talent and technicians. Telefilm Canada ... will favour projects that present a distinctly Canadian point of view. Except in cases where the story requires it, Telefilm Canada will not participate in productions that artificially disguise their Canadian locations (*1990-91 Action Plan*, p.27).

Telefilm Canada has encouraged international co-productions by making them eligible for investment from the Feature Film Fund. No conflict is seen between support for international co-productions (with their obvious benefits from pooling of fi-

nancial resources and improved foreign market access) and cultural objectives:

Telfilm Canada believes it has a clear mandate to encourage the production of a maximum number of projects that meet the highest standards, both in quality and Canadian content ... Yet in adapting this priority, Telefilm Canada fully recognizes the importance of international co-production for the development of the Canadian industry. Co-production encourages a better exchange of expertise and talent ... while significantly enlarging access for Canadian productions to foreign audiences and markets (Telfilm Canada, 1989:11).

Empirical Issues to be Addressed

In summary, Telefilm Canada's investment strategy is to promote films that are distinctively Canadian, that are of high quality and innovative (have artistic merit), that reach audiences, and whose commercial success provides economic benefits. Telefilm Canada does not appear to envision any conflict in these goals. Our empirical analysis is primarily designed to determine whether this is indeed the case or if these goals are in conflict and hence policy-makers are inevitably faced with difficult trade-offs. Also of relevance is how investment in international co-productions and investment in films with different levels of production budget impact each of these performance goals.

Assumptions are often made, positions taken, and public policy decisions and government agency strategies implemented on the basis of accepted industry 'knowledge' founded, at best, on anecdotal or perhaps case study evidence (Posner, 1993). To rectify this situation, the following issues are subjected to empirical analysis through tests of the related hypotheses (H) indicated:

(a) Is there a conflict between the economic goal of commercial success and the goal of Canadian distinctiveness? Does promoting Canadian distinctiveness, as is often as-

sumed, reduce the film's appeal in the international market and reduce commercial success? Does a trade-off have to be made if films, such as *The Apprenticeship of Duddy Kravitz* and *The Terry Fox Story*, are identifiably Canadian? Does Telefilm's policy of promoting distinctively Canadian films result in Telefilm supported films being less successful commercially but more culturally worthwhile than other concurrent Canadian films? Is direct investment superior to tax incentives for producing films with a distinctly Canadian orientation, as suggested by Acheson and Maule (1991)?

H1: The performance of films is not unidimensional, rather there are distinct commercial, artistic and cultural (distinctiveness) dimensions to film success.

H2: Films characterized as identifiably Canadian are likely to be less commercially successful than those which are not.

H3: Films characterized as identifiably Canadian are likely to have more artistic merit than those which are not.

H4: Films receiving Telefilm Canada investment are more likely to be identifiably Canadian.

H5: Films receiving Telefilm Canada investment are less likely to be commercially successful.

H6: Films receiving Telefilm Canada investment are more likely to have artistic merit.

H7: Films produced in years where tax incentives dominated are less likely to be identifiably Canadian.

(b) In its *Action Plan for the Administration of Telefilm Canada's Funds, 1993-94*, Telefilm Canada indicated an intention of increasing investment in 'the number of projects involving non-Canadian financial participation by approximately 20%, with additional increases in the years to come' (p.7). But are international co-productions, such as *Atlantic City* and *Perfectly Normal*, more likely to be commercially successful but less likely to be distinctively Canadian or have artistic merit? It is often assumed that this is the case on the grounds that

pooling of financial and creative resources is good economically but inevitably involves compromises that undermine Canadian distinctiveness and artistic integrity. It can be argued that whether Telefilm Canada should continue to invest in international co-productions and whether the Canadian government should be encouraging the international co-production mode by negotiating treaties depend on the answer.

H8: International co-productions are likely to be more commercially successful than purely domestic productions.

H9: International co-productions are less likely to be identifiably Canadian than purely domestic productions.

H10: International co-productions are less likely to have artistic merit than purely domestic productions.

(c) What are the effects of budget size on Canadian distinctiveness, artistic merit and commercial performance? Are lower budget films, such as *I've Heard the Mermaid Singing* and *Why Shoot the Teacher* more likely to have a Canadian theme, because they do not have to be made to appeal to international audiences? It is often both assumed that this is the case and that larger budget Canadian films cannot afford the luxury of a Canadian theme. Do only large budget films have a chance of competing against Hollywood movies with average production costs, in 1990, of US \$26.8 million? Instead of investing an average of just under \$1 million in some 20 films annually, would Telefilm Canada be better advised to concentrate its investment in a smaller number of larger budget projects? Alternatively, is a risk-diversification strategy of investing in more small films advisable on the grounds that spreading investment widely increases the chance of the portfolio of projects including a winner (such as the low budget UK film, 'The Crying Game,' which cost US \$5 million to produce and is expected to gross over US \$50 million in North America).

H11: Low budget films are more likely to be identifiably Canadian.

H12: Low budget films are less likely to be commercially successful.

H13: Low budget films are more likely to have artistic merit.

Method of Empirical Analysis

Empirical analysis of movie performance necessitated identifying an appropriate set of films to study and the selection of measures for each aspect of performance.

In the absence of any definitive listing, Canadian feature films were identified by an exhaustive search for films listed as Canadian or as Canadian co-productions in any one of seven English language movie guide books (listed in the bibliography). A 1970–1991 time period was chosen in order to have a sufficient number of films for statistical analysis while recognizing the problem of changes in the marketplace over time. Made-for-TV movies were excluded. A total of 347 films were identified.¹ They came disproportionately from the early 1980s, the peak-period for CCA output (Acheson and Maule, 1991), and from the late 1980s, the peak-period for Telefilm funded production.

To test the hypotheses, measures of commercial performance, artistic merit and Canadian distinctiveness are needed. In the absence of any profit information or, indeed, any comprehensive source of Canadian film box office data, North American box office rentals were used as the proxy for the commercial performance. Data on North American (i.e. Canadian and US) box office grosses came from VARIETY (Cohn, 1992) or were provided to us privately by VARIETY. Note that Canadian grosses were not included in those cases where the Canadian and US markets were served by different distributors. If a movie did not have a US theatrical release its rentals were recorded as zero. These estimates of revenues for the distributor were price adjusted for differences in the average ticket price being paid in the year of release.²

The movie guidebooks provided the other measures of performance. Six guide

books summarized their views of the films with a numerical rating; these ratings were used as indicators of artistic merit. The identification of a movie as Canadian in the text of a review was used as a measure of Canadian cultural content or distinctiveness. An additional indicator of film performance, the number of lines devoted to a review in a book, was also measured. This can be viewed as an indicator of the attention a movie attracted.

For many films, a budgeted or audited final production cost was obtained from Turner (1987). In addition, we noted whether a film received production funding from Telefilm Canada or its predecessor. The cost data were adjusted for the effects of inflation using annual changes in the CPI, chosen as a well-understood broad-based index.

Further details of how the data were used to test the hypotheses are provided in the Technical Appendix. The substantive results are discussed below.

Discussion of Empirical Support of Hypotheses

Our empirical examination of Canadian movies suggests that many common industry assumptions are not supported. With respect to the hypotheses made earlier:

H1: The performance of films is not unidimensional, rather there are distinct commercial, artistic and cultural (distinctiveness) dimensions to film success.

The dimensionality of a set of indicators of the performance of Canadian movies identified four somewhat weakly correlated dimensions of success. The first of these dimensions is readily identified as an artistic merit or critical acclaim dimension, because of the heavy loadings of critic ratings and an index of the more important Academy of Canadian Cinema Film Awards received by a movie. The second is readily identified as the Canadian distinctiveness of the movie, indicated by critical reviews describing the movie as Canadian in

character. The third dimension is commercial success, indicated most clearly by the price-adjusted North American box office rentals obtained by the movie. A fourth dimension is less clearly identifiable, but appeared to reflect the attention devoted to a movie by the industry, indicated by the amount of space given to the movie by the critics.

The performance dimensions were not entirely independent, with the strongest correlation a positive one between artistic merit and attention received. Artistic merit is also positively, but less strongly associated with commercial success and with a Canadian orientation.

H2: Films characterized as identifiably Canadian are likely to be less commercially successful than those which are not.

This hypothesis is not supported. Our results indicate that Canadian orientation was quite unrelated to commercial success, and to attention received.

H3: Films characterized as identifiably Canadian are likely to have more artistic merit than those which are not.

The findings support this hypothesis, with a .29 correlation between critical acclaim and Canadian orientation.

H4: Films receiving Telefilm Canada investment are more likely to be identifiably Canadian.

This hypothesis is not supported; no significant effect was found.

H5: Films receiving Telefilm Canada investment are less likely to be commercially successful.

Our results support this hypothesis. Films receiving government funds did suffer lower North American box office even though they received more attention.

H6: Films receiving Telefilm Canada investment are more likely to have artistic merit.

No significant difference in artistic merit is found between those films with Telefilm Canada support and those without. The hypothesis is not supported.

H7: Films produced in years where tax incentives dominated are less likely to be

identifiably Canadian.

Support for this hypothesis is found. Canadian orientation was least common amongst films released in the late 1970s and early 1980s, when tax incentives were the dominant policy strategy, and most common amongst recent films produced during a period when direct support through Telefilm Canada has been emphasized.

H8: International co-productions are likely to be more commercially successful than purely domestic productions.

The evidence here is mixed. Before controlling for genre, no relationship is found. However, there is significant interaction between mode and genre with respect to commercial success. For drama and mystery, co-productions are more successful than wholly Canadian films. On the other hand, for the fewer comedies and horror movies, co-productions are less successful commercially. The result for comedies may reflect cultural differences between countries in terms of what is considered funny and the problem a compromised product has in satisfying audiences in the market of either partner. The results are not robust, however.

H9: International co-productions are less likely to be identifiably Canadian than purely domestic productions.

This hypothesis is not supported as no significant difference was found between international co-productions and wholly domestic productions in their Canadian orientation. This, perhaps surprising, result suggests the compromises inevitable in co-production do not entail elimination of a country-specific orientation.

H10: International co-productions are less likely to have artistic merit than purely domestic productions.

Our results do not support this hypothesis. To the contrary, we found that co-productions received marginally more critical acclaim, although this result was not particularly robust. This suggests that the interaction between partners from different countries has, if anything, a positive effect

on critical acclaim rather than resulting in a compromised product lacking artistic merit.

H11: Low budget films are more likely to be identifiably Canadian.

This hypothesis is not supported; no significant effect is found. This result is open to several interpretations one of which is that producers of higher budget films do not feel the need to downplay their Canadian orientation in order to appeal to an international audience.

H12: Low budget films are less likely to be commercially successful.

Our results support this hypothesis in terms of revenue generated. A reduction in budget by \$1 reduces North American box office by about 72 cents. However, we would need to know the effect on net revenues from other markets to know how profit is affected.

H13: Low budget films are more likely to have artistic merit.

No significant effect was found between size of budget and critical acclaim. Hence the hypothesis is not supported.

Policy Implications of Findings

Our findings have important implications for government policy and, in particular, the investment strategy of Telefilm Canada. The most important implications are:

1. Policy-makers do not have to be concerned about a trade-off between Canadian orientation and commercial success. Hence Telefilm Canada should not let commercial concerns deflect it from the goal, expressed in its *Action Plan, 1991-92*, of favouring distinctly Canadian films. (Interestingly, our data for 1970-91 provide no evidence to suggest that this was an implicit policy prior to this policy statement). In pursuing such a strategy, Telefilm Canada does not have to be concerned with the effect on artistic merit as there is a low positive correlation between Canadian orientation and critical acclaim.

2. Telefilm Canada's intention of in-

creasing investment in co-productions is appropriate as there is no trade-off in terms of Canadian orientation while co-productions enjoy marginally superior critical acclaim. However, Telefilm Canada should exert care in the genre of the co-productions it encourages. It should invest in drama and mystery projects, where co-productions enjoy greater commercial success, rather than comedy and horror where they experience less.

3. The Government of Canada should continue to encourage international co-productions through negotiation of co-production treaties.

4. The Government of Canada's current policy of de-emphasizing tax incentives is well-grounded. The result is more films with a distinct Canadian orientation.

5. The generally dismal box office results can be somewhat improved by increasing budgets without compromising artistic merit or Canadian orientation. An additional dollar of production spending generates, on average, 72 cents of North American box office rentals to the distributor. However, determining whether a Telefilm Canada strategy of encouraging increased production budgets would be efficient requires knowledge of the relationship between box office rentals and net revenues from other markets, such as broadcasting, video and international.

Conclusions

This paper is a first attempt to provide the empirical foundations necessary for sound public policy formulation in the Canadian feature film area. Our results indicate that much widely accepted industry 'knowledge' is not supported by the evidence. Notably, there is no support for the assumption that there is a trade-off between Canadian orientation and commercial success, that international co-productions are less likely to have a Canadian orientation or enjoy critical acclaim than purely domestic productions, or that low budget or Telefilm Canada supported films are more likely to

be identifiably Canadian and more likely to achieve critical acclaim.

Further empirical work is warranted. Similar work is needed on a more representative sample of French language films. We are currently undertaking an international comparison of the performance of Canadian movies with the dominant US industry and those of two other English-language countries, the UK and Australia, that are struggling to compete. In addition, the relationship between production budget, box office in North America and net revenue from other markets needs examining.

Notes

* This research was carried out with financial contributions from a Strategic Grant from the Social Sciences and Humanities Research Council and from the J.D. Muir Research Fund, Faculty of Business, University of Alberta. The authors would like to thank Jay Hater for his work on data coding and Lawrence Cohn, Film Editor of *VARIETY*, for his assistance in obtaining the film rentals data.

- 1 The films represented about 40% of all Canadian films produced during the period (see Robertson, 1991). Very few French language productions were included, because the guide books only include those foreign language films which achieved some measure of recognition in their English language target markets.
- 2 Following Baker and Faulkner (1991), we used the Motion Picture Association of America ticket price index (Vogel, 1990:45; Squire, 1992:379) for this purpose.

Comprehensive Film Ratings Sources

Halliwell, Leslie (1991) *Halliwell's Film Guide*, 7th ed. (London: Grafton Books).

Maltin, Leonard (ed.) (1992) *Movie and Video Guide 1992* (New York: Signet).

Martin, Mick and Marsha Porter (eds.) (1992) *Video Movie Guide 1992* (New York: Ballantine Books).

Milne, Tom (ed.) (1991) *The Time Out Film Guide* (London: Penguin).

Nash, Jay Robert and Stanley Ralph Ross (1983) *The Motion Picture Guide* (Chicago: Cinebooks, Inc. and associated annual volumes).

Scheuer, Stephen H. (ed.) (1992) *Movies on TV and Videocassette 1992-1993* (New York: Bantam Books).

VideoHound (1992) *VideoHound's Golden Movie Retriever 1992* (Detroit: Visible Ink).

References

Acheson, Keith and Christopher Maule (1991) 'It Seemed Like a Good Idea at the Time,' *Canadian Journal of Communication*, 16:2:263-76.

Baker, Wayne E. and Robert R. Faukner (1991) 'Role as Resource in the Hollywood Film Industry,' *American Journal of Sociology*, 97:September:279-309.

Bird, R.N., M.W. Bucovetsky and A. Yatchew (1981) *Tax Incentives for the Canadian Film Industry* (Toronto: The Institute for Policy Analysis, University of Toronto).

Cohn, Lawrence (1992) 'All-Time Film Rental Champs,' *VARIETY* (May 4), p.33.

Collins, R. (1990) *Culture, Communication and National Identity* (Toronto: University of Toronto Press).

Ellis, D. (1992) *Split Screen; Home Entertainment and the New Technologies* (Toronto: Friends of Canadian Broadcasting).

Gasher, Mike (1992) 'The Myth of Meritocracy: Ignoring the Political Economy of the Canadian Film Industry,' *Canadian Journal of Communication*, 17:3:371-8.

Globerman, Steven (1991) 'Foreign Ownership of Feature Film Distribution and the Canadian Film Industry,' *Canadian Journal of Communication*, 16:2:191-206.

Harcourt, Peter (1989) 'Canadian Film Policy: A Short Analysis.' Pp.79-86 in H.H. Chartrand, W.S. Hendon and C. McCaughey, *Cultural Economics 88: A Canadian Perspective* (Akron, OH: University of Akron).

Harman, Harry H. (1976) *Modern Factor Analysis*, 3rd ed. (Chicago: University of Chicago Press).

Hoskins, Colin and Stuart McFadyen (1991) 'The US Competitive Advantage in the Global Television Market: Is It Sustainable?' *Canadian Journal of Communication*, 16:2: 207:24.

— (1993) 'Canadian Participation in International Co-Productions and Co-Ventures in Television Programming,' *Canadian Journal of Communication*, 18:219-36.

Magder, Ted (1993) *Canada's Hollywood: The Canadian State and Feature Films* (Toronto:

University of Toronto Press).

Pendakur, Manjunath (1990) *Canadian Dreams and American Control: The Political Economy of the Canadian Film Industry* (Detroit: Wayne State University Press).

Posner, Michael (1993) *Canadian Dreams* (Vancouver: Douglas & McIntyre).

Robertson, Patrick (1991) *The Guinness Book of Movie Facts & Feats* (Enfield, UK: Guinness).

Schiller, Herbert (1969) *Mass Communications and the American Empire* (New York: A.M. Kelley).

Squire, Jason E. (1992) *The Movie Business Book*, 2nd ed. (New York: Simon & Schuster).

Telefilm Canada (1989) *Strategy for the Administration of Telefilm Canada Funds 1989-90* (Montreal: Telefilm Canada).

— (1990) *Action Plan for the Administration of Telefilm Canada Funds 1990-91* (Montreal: Telefilm Canada).

— (1991) *Action Plan for the Administration of Telefilm Canada Funds 1991-92* (Montreal: Telefilm Canada).

— (1993) *Action Plan for the Administration of Telefilm Canada Funds 1993-94* (Montreal: Telefilm Canada).

Turner, D. John (1987) *Canadian Feature Film Index, 1913-1985* (Ottawa, ON: National Film, Television and Sound Archives).

Vogel, Harold L. (1990) *Entertainment Industry Economics*, 2nd ed. (Cambridge: Cambridge University Press).

Technical Appendix

To determine the dimensionality of success, the critical ratings, review lengths, indicators of Canadian character, an index of the number of major Academy of Canadian Cinema Film Awards, and transformed adjusted box office rentals data were factor analysed (Harman, 1976). A square root transformation was used on the box office rentals to reduce the impact of high rental outliers. The correlation matrix used in the factor analysis was computed using all cases available for each pair of variables. An oblimin factor rotation was used to permit the identification of correlated factors. Four factors accounted for 48 per cent of the variance in these measures of performance. The factors were identified as: (1) critical acclaim, (2) Canadian orientation, (3) commercial success, and (4) attention received. The strongest correlation amongst the four performance factors was a mo-

dest positive one between critical acclaim and attention received (.38). Critical acclaim was also positively, but more weakly, correlated with commercial success (.26) and a Canadian orientation (.29). However, Canadian orientation was unrelated to commercial success (.04), and was negatively, but weakly, related to attention received (-.10). Subsequent analysis used the item with the highest loading on each factor as the best single indicator for each success dimension. These were: Critical acclaim: critical rating from Videohound; Canadian orientation: coding of Martin & Porter's reviews; Commercial success: transformed price adjusted box office rentals; Attention received: length of Steven Scheuer review.

There were some significant differences in success by film genre. Dramas received the most critical acclaim, while comedy, action and horror films received the least. Drama and action films were the most likely to be identifiably Canadian oriented. Horror and comedy films were the most commercially successful and dramas the least. There were no significant differences in the attention received by genre.

To examine the effects of international co-productions and Telefilm funding, we controlled for genre and compared the success of (i) international co-productions with that of wholly Canadian productions, and (ii) Telefilm Canada (or its predecessor) funded productions (TC Fund in Table 1) and non-funded (Non TC Fund) productions. Missing data resulted in some analyses being conducted on subsets of the films.

As shown in Table 1, international co-productions received significantly more critical acclaim than purely Canadian productions. Surprisingly, there was no difference between wholly Canadian productions and international co-productions in terms of Canadian orientation or commercial success. However, for commercial success there was a significant interaction of mode with genre. This was because drama and mystery co-productions were more commercially successful than wholly Canadian productions, whereas the small number of comedy and horror international co-productions were much less

commercially successful than wholly Canadian productions.

Telefilm funding had no effect on critical acclaim or Canadian orientation. However, Telefilm funded films were less commercially successful but received more attention than other Canadian films.

To investigate the effects of production budget size and year of production, these effects were examined while also controlling for movie length. Both variables were introduced as linear and quadratic covariates. The larger number of independent variables and the high levels of missing data meant the estimates were done for a somewhat reduced number of cases. The significance levels for the effects of each of the independent variables and covariates are shown in Table 1.

The only significant result for budget size was a positive linear effect on commercial success. Controlling for genre, an additional dollar in production budget generated about 72 cents in additional North American box office rentals. While probably insufficient to represent a real positive return on the marginal dollar, this is at least far higher than the average of about 13 cents of rentals per dollar of production budget.

There was a linear effect of movie length on critical acclaim, with longer movies receiving greater acclaim than shorter movies. The year of the movie's release also had some interesting effects. First, there was no impact on critical acclaim. However, there was a weak linear and a very strong quadratic effect on Canadian orientation. Both were positive, showing Canadian orientation to be most common amongst recent films, and least common amongst films released in the middle period of the late 1970s and early 1980s (when tax incentives dominated), with films released in the early 1970s falling between the two extremes. There was a somewhat similar pattern for attention received, although in this case the linear effect was stronger than the quadratic. There was no effect of year of release on box office rentals, providing useful support for the effectiveness of the price adjustment used in the study.

Table 1
Type of success by mode, funding, genre and covariates

		Critical acclaim		Canadian orientation		Commercial success		Attention received	
Film genre	Funding subgroup	VH Stars n	mean	M&P Canadian n	mean	ABO Rentals n	mean	SS Length n	mean
Drama	Canadian	47	3.83	44	0.27	101	307	53	4.98
	Co-production	17	4.71	14	0.21	26	601	20	6.60
	Non TC Fund	17	3.94	16	0.19	31	443	18	4.78
	TC Fund	32	4.16	27	0.37	65	382	36	5.11
Comedy	Canadian	39	2.92	32	0.06	48	1005	39	5.08
	Co-production	2	3.00	3	0.00	4	223	3	5.33
	Non TC Fund	12	3.17	7	0.14	14	1675	10	4.10
	TC Fund	17	3.00	18	0.06	23	925	17	5.41
Horror	Canadian	40	3.10	34	0.03	43	1252	39	5.67
	Co-production	8	2.50	7	0.14	8	457	7	5.00
	Non TC Fund	13	3.00	10	0.10	13	1388	12	4.50
	TC Fund	18	3.83	17	0.00	20	1512	17	6.71
Action or Mystery	Canadian	42	3.12	33	0.12	56	317	41	4.90
	Co-production	11	4.00	11	0.09	29	994	10	4.50
	Non TC Fund	18	3.22	14	0.07	22	580	15	4.60
	TC Fund	15	3.60	16	0.19	22	365	16	4.81
Total	Canadian	185	3.31	158	0.13	284	636	198	5.18
	Co-production	47	3.96	44	0.11	61	715	51	5.71
	Non TC Fund	67	3.43	55	0.13	97	919	69	4.75
	TC Fund	96	3.76	87	0.16	143	628	95	5.40
Probability levels for <i>F</i> test of equality of means:			Prob.		Prob.		Prob.		Prob.
		Genre	.000		.010		.000		ns
		Mode	.065		ns		ns		ns
		Mode by genre	ns		ns		.033		ns
		Fund	ns		ns		.067		.031

Parameter estimates and probability levels for test of significance for covariates:								
	Est.	Prob.	Est.	Prob.	Est.	Prob.	Est.	Prob.
Film length	.068	.000	.004	.261	-5.79	.505	-.008	.661
Film length quadratic	-.001	.606	.000	.493	0.06	.864	.001	.500
Year	-.004	.913	.015	.074	-24.72	.335	.136	.007
Year quadratic	.005	.464	.008	.000	-4.63	.236	.014	.095
Production budget	-.101	.526	.048	.225	463.9	.000	-.077	.721
Prod. budget quadratic	.003	.979	-.017	.462	40.24	.529	.161	.211
Variance explained		.319		.328		.361		.278
No. of films with covariates		141		120		200		140