

# Oxford Economic Forecasting

## The Economic Contribution of the UK Film Industry

20<sup>th</sup> September 2005

Supported by the UK Film Council  
and Pinewood Shepperton plc



UK FILM COUNCIL  
LOTTERY FUNDED



*Oxford Economic Forecasting*  
121, St Aldates, Oxford, OX1 1HB  
☎: 01865 268900, 📠: 01865 268906  
🌐: [www.oef.com](http://www.oef.com)

<b>1</b>	<b>KEY POINTS</b> .....	<b>1</b>
<b>2</b>	<b>EXECUTIVE SUMMARY</b> .....	<b>2</b>
<b>3</b>	<b>INTRODUCTION</b> .....	<b>7</b>
3.1	Study scope and objectives .....	7
3.2	Definition of a UK qualifying film.....	8
3.3	The channels of economic impact.....	9
3.4	Report structure .....	10
<b>4</b>	<b>DIRECT IMPACT – EMPLOYMENT AND GDP</b> .....	<b>12</b>
4.1	Direct employment.....	13
4.2	Direct contribution to GDP .....	14
4.3	Direct investment .....	16
4.4	Direct tax revenues.....	18
4.5	Direct regional impacts .....	20
4.6	Economic impact from non-UK films .....	22
4.7	Summary .....	23
<b>5</b>	<b>PRODUCTIVITY – SKILLS EDUCATION AND TRAINING</b> .....	<b>24</b>
5.1	Qualifications and demographics .....	24
5.2	Wages and salaries .....	25
5.3	Skills and mobility .....	27
5.4	Summary .....	28
<b>6</b>	<b>MULTIPLIERS AND LINKAGES</b> .....	<b>29</b>
6.1	Estimates of the multiplier for the UK film industry .....	29
6.2	Value added and employment .....	30
6.3	Direct and multiplier tax contribution .....	32
6.4	Summary .....	32
<b>7</b>	<b>TOURISM</b> .....	<b>33</b>
7.1	General impact .....	33
7.2	Film locations.....	34
7.3	How much is film tourism worth in the UK? .....	35
7.4	Is UK film tourism at risk? .....	37
7.5	Summary .....	37
<b>8</b>	<b>CULTURE</b> .....	<b>38</b>
8.1	Theory .....	38
8.2	Assessing the cultural value of UK film .....	39
8.3	Summary .....	45

<b>9</b>	<b>MERCHANDISING</b> .....	<b>46</b>
9.1	Videos/DVDs .....	46
9.2	Soundtracks .....	48
9.3	Books .....	48
9.4	Computer/video games .....	49
9.5	Toys/models .....	49
9.6	Clothing .....	49
9.7	The overall value of merchandising .....	50
9.8	Summary .....	51
<b>10</b>	<b>PROMOTION AND TRADE</b> .....	<b>52</b>
10.1	Introduction .....	52
10.2	Direct UK trade in film .....	52
10.3	The indirect effects on trade from UK film .....	54
10.4	Summary .....	55
<b>11</b>	<b>CONCLUSIONS – SUMMARY OF OVERALL IMPACT</b> .....	<b>56</b>
	<b>APPENDIX A: ESTIMATING TAX REVENUES</b> .....	<b>57</b>
	<b>APPENDIX B: OXFORD ECONOMIC FORECASTING</b> .....	<b>60</b>

## DEFINITIONS

### The 'UK film' industry

The UK film industry is defined in this report to include those activities which arise in the UK from the companies and/or individuals employed in the:

- different stages of **film production in the UK** (including pre- and post-production)
- **distribution of UK-made films**; and
- **exhibition of UK-made films**.

This means that the economic activity associated with the distribution and exhibition of films made abroad is not included in the estimates presented in this report. While the economic impacts associated with all of the activities of the film production sector in the UK – whether on UK or non-UK films – are set out in this report, we only include activity in the distribution and exhibition sectors related to UK qualifying films. A UK film is defined as any film which is certified UK by the Department for Culture, Media and Sport.

## 1 Key points

- **The UK film industry is a substantial industry, directly employing 31,000 people in 2004 and supporting a total of 97,500 jobs**, taking into account those working in its supply chain and its contribution to UK tourism, trade and merchandise sales.
- **The UK film industry contributed £3.1 billion to UK GDP in 2004, taking into account its multiplier impacts, and around £850 million to the Exchequer** (gross of tax relief and other fiscal support).
- Of this, inward investment films contributed about £2.0 billion to UK GDP and £550 million to Exchequer revenues.
- But the future success of the UK film industry cannot be taken for granted. It is part of an intensely competitive international industry.
- Indeed, the uncertainty about potential changes to the tax regime in the UK has contributed to a sharp fall in inward investment in films, probably to only £324 million in 2005, down from £549 million in 2004.
- **The UK has much to lose if this country were no longer seen as an attractive place to invest in films:**
  - The UK film industry employs some of the UK's most highly qualified and internationally mobile people. It is estimated that one-quarter of these would move overseas to be based in or near competing film production centres, and so would no longer contribute to UK GDP and tax revenues.
  - There would be a clear deterioration in the UK's cultural life, with the cinema box office reduced by around £38 million a year and a reduction in the number of films that reflect British life.
  - Moreover, with British stories more likely to be rewritten in the context of other countries, the contribution the UK film industry makes in encouraging tourism and trade would be diminished.
- **Taking these factors into account, the demise of any UK film industry is estimated to reduce UK GDP by over £1.4 billion a year.**
- **Exchequer revenues would be around £329 million a year lower without the UK film industry, significantly more than the official estimates of the cost of the current support provided to the industry.**

## 2 Executive Summary

The tax regime established in 1992 to encourage investment in films in the UK has facilitated the development of a substantial UK film industry making a large net contribution both to the UK economy and to the cultural life of the country.

Taking into account all of the ways in which the UK film industry contributes to UK plc, we calculate that it contributed £3.1 billion to GDP in 2004 and £850 million to the Exchequer in tax revenues (gross of tax relief and other fiscal support).

If changes to the tax regime led to the decline of the UK film industry, UK GDP would be around £1.4 billion a year lower, with Exchequer revenues reduced by around £329 million a year.

### (a) The UK film industry has become a substantial industry...

#### ... directly employing 31,000 workers...

- The UK film industry directly employed around 31,000 full-time equivalents (FTEs) in 2004 (including those self-employed). It means that the UK film industry is of similar size to the BBC and the book publishing industry.
- While around two-thirds of the jobs in the UK film industry are based in London and the South East, there are significant numbers of employees throughout the UK. For example, the industry directly supports around 2,000 jobs in both the North West and South West, and supports about 4,000 in each of these two regions overall, taking into account multiplier impacts.

#### ... including some of the UK's most highly qualified and internationally mobile

- The film industry provides jobs for some of the UK's most highly qualified workers. For example, 46% of the production workforce are university educated, while 31% of the production workforce have a graduate level qualification specifically relevant to the UK film industry. Furthermore, boosting and updating skills in the UK film industry is a key priority of the UK Film Council through its 'A Bigger Future' skills strategy. The UK film industry also attracts many highly skilled foreign workers to the UK. Our survey of companies in the industry suggests that around 10-15% of the production workforce is from outside the UK.
- The skills of the core UK film industry's workforce are reflected in their average earnings. For example, the average gross income for workers in the UK production sector was £37,300 per annum in 2003, almost 50% higher than the UK average income. The occupations which earn the highest wages are in post-production, sound/electrical and camera operators, although it should be acknowledged that low-paid and low-skilled workers are also common, particularly in the exhibition sector.
- The skills of those working in the UK film industry are highly valued around the world. There is a clear danger that, if there were not a successful UK film industry, many of the most highly skilled people currently working in production and post-production in the UK – and therefore contributing to UK GDP and tax revenues – would move abroad.

- In particular, our discussions with UK production companies suggest that up to one-quarter of staff would eventually relocate if tax and other considerations meant that the UK was no longer attractive to investors in film. In value added terms, the impact could be even higher as this one-quarter would comprise the higher-skilled workers. Workers in the film industry are probably more likely to choose to work abroad than workers in other industries given the international nature of the film industry and its labour force.

**... directly contributing around £960 million a year to GDP...**

- On a turnover of £2.3 billion, the UK film industry directly contributed around £960 million to UK GDP in 2004. This means that the UK film industry contributed slightly more to GDP than, for example, the machine tools manufacturing industry.
- The UK film industry has undertaken a total of £710 million of fixed capital investment in infrastructure and new technology over the last decade.

**... and £310 million to the Exchequer**

- The UK film industry is estimated to have directly contributed £310 million to the Exchequer in 2004 in income tax, national insurance contributions, VAT and corporation tax (gross of tax relief and other fiscal support). This is equivalent to 14% of the turnover in the UK film industry.

**(b) The UK film industry is part of a broader screen and media industry**

- For every job supported in the UK film industry a further job is supported through indirect and induced multiplier impacts. The UK film industry therefore helps to support 62,000 FTE jobs in total, allowing for those people employed in companies supplying the film industry and for the jobs dependent on the spending of film industry workers.
- This activity contributes a further £960 million a year to UK GDP and £270 million a year to UK tax revenues.
- There are also links with other screen industries which go much further than just a supplier relationship. Multi-sector working is widespread, with around 50% of firms operating in more than one screen industry sector. Removing the UK film industry may therefore have a much greater impact on other sectors than that represented by the standard indirect and induced multiplier impacts.

**(c) The UK film industry's impact is much wider...**

- The UK film industry contributes to the economy and Exchequer in a number of other ways not captured by standard multipliers. For example, by promoting British cultural life, attracting tourists to the UK, supporting UK exporters, and generating sales of DVDs, CDs and other merchandise.

**...promoting British cultural life...**

- The UK film industry contributes substantially to the cultural life of the UK. Successful UK films can become imbedded in the national consciousness as offering a sense of identity that can boost the population's self-confidence.
- Moreover, econometric evidence suggests that film audiences place a premium on indigenous films. Our estimates suggest that, other things equal, a film shown in the

UK can expect its box office revenue to be up to 31% higher if it is indigenous. On this basis, we calculate that the existence of UK films boosted the average box office revenues of cinemas by more than £38 million a year over the last decade. As a result, employment in the exhibition sector of the UK film industry has probably been around 1,400 higher than it would have been if cinemas had been showing only foreign films, with tax revenues around £15 million a year higher.

- But the support provided to the UK film industry has also ensured that several filmmakers have maintained a British setting for stories rather than translating them into the context of another country. For example, there was speculation that the characters in the Harry Potter films were to be depicted as Americans with the School named as Hogwarts High.

#### **...attracting tourists to the UK...**

- The presentation of UK life in films is not only important in sustaining our culture, it also has important impacts on UK tourism and trade.
- Surveys suggest that one in five visitors to the UK come as a result of seeing the country depicted in film and television. VisitBritain regularly produces 'movie maps' highlighting both locations used in films such as King Arthur, Master and Commander, Bridget Jones's Diary, the James Bond and Harry Potter series, and other sites around the UK linked to themes in UK films.
- Our estimates suggest that between £400 million and £1.6 billion a year of spending by foreign visitors in the UK occurs as a result of people seeing UK films. In 2004, this spending supported 20,000 jobs in the UK, contributing £170 million to the Exchequer and £800 million in GDP to the UK economy.

#### **...supporting UK exporters...**

- Exporters of other goods and services also benefit from the part UK films play in establishing and reinforcing the country's image and 'brand'. For example, Gwyneth Paltrow in Sliding Doors had an impact on UK fashion sales and Austin Powers was given credit for booming sales of Minis in North America. And according to official UK representatives in China, Bend it Like Beckham has significantly raised the UK's image in the Far East. The growing market in product placement in UK film also provides an outlet for exporters to advertise their products to a wider audience. These promotional benefits are estimated to be worth around £100 million in GDP.
- The UK film industry is a significant contributor to export earnings in its own right. In 2003, total exports of the film industry were £633 million, with a net contribution of £95 million to the UK balance of payments.

#### **...and generating sales of DVDs, CDs and other merchandise**

- The UK film industry also supports economic activity in sectors supplying associated merchandising. For example, sales of UK films on video/DVD were worth an additional £200 million in 2004; rentals of UK films on video/DVD were worth an additional £112 million; sales of soundtrack CDs were £10 million; and sales of related computer/video games were £53 million. In addition, UK films support sales of books, toys, models and clothes.
- The importance of merchandising was acknowledged by the Chancellor of the Exchequer on a recent visit to China when he noted that what Chinese school children wanted most from Britain was more Harry Potter merchandise.

- We estimate that the merchandising associated with UK films supported about 11,000 jobs in 2004, contributed about £264 million to UK GDP and £60 million to the Exchequer.
- (d) **The UK film industry generated in total about £3.1 billion of GDP in 2004 and Exchequer revenues of £850 million...**
- Taking into account all of the ways in which the UK film industry contributes to UK plc, we calculate that it contributed about £3.1 billion to GDP in 2004, paid £850 million to the Exchequer in tax revenues (gross of tax relief and other fiscal support) and supported a total of 97,500 jobs.
  - Within these totals, inward investment films generated about £2.0 billion to GDP in 2004 and £550 million in Exchequer revenues.
- ... with inward investment films generating £550 million tax revenues in 2004 but only £330 million in 2005**
- The uncertainty over the tax regime for UK films may have been the cause of the sharp fall in the value of inward investment films to £549 million in 2004, down from £730 million in 2003. Although 2003 and 2004 figures are the highest annual levels for the past decade, the downward trend appears to have continued, with inward investment films estimated to total only £324 million in 2005.
  - This underlines that the film industry is an intensely competitive international industry. While the current fiscal regime has enabled the industry to succeed over the last decade, its future success cannot be taken for granted. Adding together all the effects that inward investment films have on the economy, tax revenues raised are likely to fall from £550 million in 2004 to £330 million in 2005.
- (e) **The loss of the UK film industry would cost UK plc £1.4 billion in lost GDP and £329 million in Exchequer revenues**
- What would the UK lose if it did not have a film industry? While many of those currently working in the UK film industry would find jobs elsewhere and so continue to pay taxes, our research suggests that perhaps one-quarter of the most highly skilled would move overseas to be based in or near film production centres. As a result, UK GDP would be directly reduced by around £180 million a year and government tax revenues by £60 million.
  - There would also be a clear deterioration in the UK's cultural life. In purely financial terms, the size of the cinema box office would be smaller, perhaps reducing GDP by as much as £38 million a year and tax revenues by £15 million. While consumers may simply switch this spending to other goods and services without a UK film industry, the additional consumer and social benefits which people attach to UK films would be lost.
  - There is also an increased risk that British stories will be rewritten and presented in the context of other countries (as happened with films such as *High Fidelity*). This would threaten to undermine the benefit that the UK economy receives as a result of the tourism, trade and additional merchandising that the film industry helps to promote.
  - **On this basis, we estimate that – even taking into account possible reallocation of workers and spending to other UK sectors – the demise of the**

**UK film industry would reduce UK GDP in net terms by around £1.4 billion a year and reduce Exchequer revenues by around £329 million a year. That is significantly more than the cost of the current support provided to the industry of £124 million in 2004.** HM Treasury official estimates state that film tax incentives were worth around £70 million in 2004/05 and that DCMS / UK Film Council / National Lottery support was worth around £54 million.

**Table 2-1: Summary of the economic contribution of the UK film industry**

<b>Channel of impact</b>	<b>Total contribution to UK GDP in 2004</b>	<b>Total contribution to Exchequer revenues in 2004</b>	<b>Net impact on GDP of the loss of the UK film industry</b>	<b>Net impact on Exchequer revenues of the loss of the UK film industry</b>
Direct	£960 mn	£310 mn	£180 mn	£60 mn
Multiplier (indirect and induced)	£960 mn	£270 mn	£180 mn	£50 mn
British film box office effect	£38 mn	£15 mn	£38 mn	£15 mn
Tourism	£800 mn	£170 mn	£800 mn	£170 mn
Promotion/trade	£100 mn	£20 mn	£100 mn	£20 mn
Merchandising	£264 mn	£60 mn	£63 mn	£14 mn
<b>Total</b>	<b>£3,122 mn</b>	<b>£845 mn</b>	<b>£1,361 mn</b>	<b>£329 mn</b>

*Note: The UK film industry includes the activities which arise in the UK from the companies / individuals employed in the different stages of film production in the UK (including pre- and post-production); distribution of UK-made films; and exhibition of UK-made films. Economic activity associated with the distribution and exhibition of films made abroad is not included. £mn = £ million.*

### 3 Introduction

This report, prepared by Oxford Economic Forecasting (OEF)<sup>1</sup>, provides a comprehensive evaluation of the economic contribution of the UK film industry. The purpose of undertaking this study is to inform the government consultation on the fiscal support regime for the UK film industry, published on 29 July 2005<sup>2</sup>.

#### 3.1 Study scope and objectives

The specific economic impacts we have focused on in this study are those which arise in the UK from the activities of companies and/or individuals employed in the:

- different stages of **film production in the UK** (including pre- and post-production);
- **distribution of UK-made films**; and
- **exhibition of UK-made films**.

The key point to note here concerns the distribution and exhibition categories – specifically, the economic activity associated with the distribution and exhibition of films made abroad is not included in our definition of the UK film industry<sup>3</sup>. While the economic impacts associated with all of the activities of the film production sector in the UK – whether on UK or non-UK films – are set out in this report, we only include activity in the distribution and exhibition sectors related to UK qualifying films. A UK film is currently defined as any film which is certified UK by the Department for Culture, Media and Sport (DCMS) (see Section 3.2 for a description of the full definition).

The reason for making this distinction is to focus on the benefits that follow from having a UK-based film infrastructure industry which would be lost if all films shown in the UK were made in other countries. The general approach we use in the study is, firstly, to present the economic impact associated with activity related to UK films only (ie after making suitable adjustments to remove the activity associated with the distribution/exhibition of films made abroad) and then, secondly, to present the figures for the overall activity from the film industry in the UK.

In conducting the study, we have been mindful of the different elements in the value chain of the film industry. In particular, we use a definition of the film industry which has been commonly used in other studies, surveys and literature, disaggregating the industry into the following four segments:

- **Development and Pre-production:** rights (eg IP creation); planning, writing, direction and casting.
- **Production:** cast (eg costume, make-up, props sales/rental); location (eg stage and studio rental and equipment; location management and catering; set production, electrical skills); and film and sound (eg equipment rental and sales, camera operations, sound recording and mixing, animation, visual effects).

---

<sup>1</sup> Appendix B gives a brief description of Oxford Economic forecasting, its services, capabilities and experience.

<sup>2</sup> The Reform of Film Tax Incentives: Promoting the sustainable production of culturally British films (29 July 2005).

<sup>3</sup> For example, the activity in the distribution/exhibition sector associated with a film like *Love Actually* is included but not the activity associated with the *Lord of the Rings*.

- **Post-production:** including editing, music, sound, and post-production computer generated imagery (CGI).
- **Distribution/Exhibition:** film duplication; cinema distribution of UK-made films; and secondary distribution of UK-made films (video, DVD, TV sales, online etc).

This research builds on a study recently undertaken for the UK Film Council by Optima/Cambridge Econometrics<sup>4</sup> (CE) which assesses the size of the screen industries in the UK (film, TV, corporate video and commercials/advertising), disaggregated by nation and region, and the economic multipliers associated with these four screen industries.

### 3.2 Definition of a UK qualifying film

A UK qualifying film is one which meets the definition of 'British' in Schedule 1 of the Films Act 1985 or one which qualifies as a co-production under one of the international co-production agreements recognised by the UK. To meet the DCMS definition under Schedule 1 of the Films Act, the film must pass all of the following tests:

- **Maker test** – the film is made by a UK company that is registered and centrally managed and controlled in the UK, in another state of the European Union/European Economic Area or in a country with which the European Community has signed an Association Agreement.
- **Production cost test** – 70% or more of the production costs of the film are spent on film-making activity in the UK.
- **Labour cost test** – 70% or more of the total labour costs are paid to citizens/residents of the Commonwealth, EU/EEA or a country with which the European Community has signed an association agreement.
- **Previously filmed test** – less than 10% of the film originates from a previously certified film or from a film by a different maker.

Alternatively, a film may be certified as British if it meets the requirements of the European Co-Production Convention or of the UK's bilateral co-production treaties with France, Germany, Italy, Canada, Australia, New Zealand and Norway.

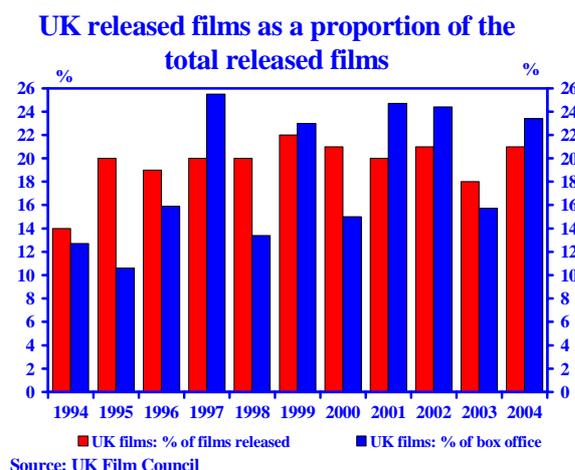
The market share of UK qualifying films is shown in the chart overleaf. In 2004, UK films accounted for 21% of all films released and just over 23% of total box office revenues. Over the past five years (2000-4) the equivalent figures are 20% and 21% in terms of films released and box office revenues respectively.

Under the proposals set out in the film tax reform consultation, the definition of British films would change. The DCMS consultation document<sup>5</sup> proposes a cultural test for British films where a range of measures – personnel, cultural content and facilities – are taken into account in identifying whether a film is British. According to this document, the test aims "to better identify culturally British films that might be considered eligible for the new tax incentives".

<sup>4</sup> Economic impact of the UK Screen Industries, A Report submitted to the UK Film Council and the National and Regional Screen and Development Agencies, Cambridge Econometrics (2005).

<sup>5</sup> 'Cultural test for British Films: Consultation', Department for Culture, Media and Sport (29 July 2005).

Chart 3-1:



### 3.3 The channels of economic impact

There are many channels through which the UK film industry makes a contribution to the UK economy. This contribution includes the following standard economic impacts:

- **Direct impacts** – employment and activity in the UK film industry itself. As discussed above, this covers all stages of film production (pre-production, production and post-production) which physically takes place in the UK, together with the distribution and exhibition of UK qualifying films in the UK.
- **Indirect impacts** – employment and activity supported down the supply chain to the UK film industry, as a result of UK film companies purchasing goods and services from UK suppliers. This includes, for example, jobs supported by the manufacture of production equipment sold to production companies; the manufacture of goods sold at cinemas; the spending of film crews in hotels, restaurants etc; business expenditure on TV, radio and other advertising; and a wide variety of activity in the business services sector (legal, accountancy, IT etc).
- **Induced impacts** – employment and activity supported by those directly or indirectly employed in the UK film industry spending their incomes on goods and services in the wider UK economy. This helps to support jobs in the industries that supply these purchases, and includes jobs in retail outlets, companies producing consumer goods and in a range of service industries.

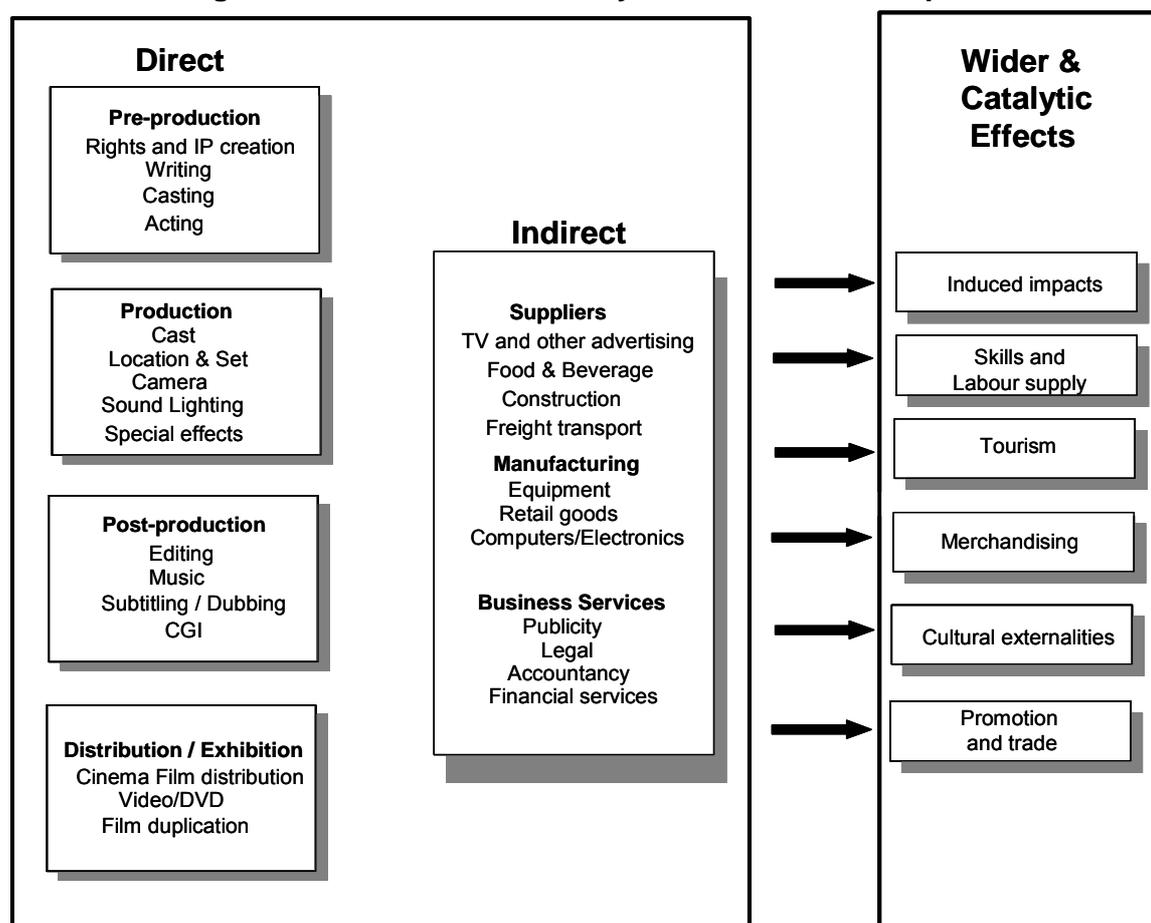
But there are also a number of additional economic catalytic impacts ('spillovers') which result from the wider role film has on:

- **Skills and the labour supply** – the UK film industry improves skill levels in the UK economy by helping to retain highly skilled people who would otherwise go abroad or by attracting well-trained people from other countries to work in the UK.
- **Tourism** – the UK film industry indirectly enhances the UK tourist industry by encouraging more international tourists to visit the UK, and their spending supports a substantial number of jobs in the UK.
- **Culture** – A distinct UK film culture has the characteristics of a public good in the sense that all of the cultural/educational economic externalities (ie spillovers or benefits) are unlikely to be provided by an unaided market.

- **Merchandising** – sales of books, CDs, computer games, toys and models, as well as film-inspired fashion, are all increased as a result of a strong and successful UK film industry.
- **Promotion and trade** – the UK film industry has a role in facilitating trade into the UK. High quality films raise the awareness of the UK as a place to invest, not only in the UK film industry itself but also in other sectors.

The economic value of the direct, indirect and induced effects is related to the total revenues of the UK film industry, while the catalytic impacts are ‘spillover’ benefits for other industries, consumers and the economy more generally (as shown in Figure 3-1 below).

**Figure 3-1: The UK film industry and its economic impacts**



### 3.4 Report structure

The rest of this report is structured as follows:

- Chapter 4 focuses on the direct impact of the UK film industry in terms of employment, GDP and investment.
- Chapter 5 assesses the productivity of the UK film industry and related indicators such as average wages, education, and skills and training.

- Chapter 6 discusses the multiplier impacts of the UK film industry – the so-called indirect and induced impacts.
- Chapter 7 covers the impact of the UK film industry on tourism.
- Chapter 8 looks at the impact of the UK film industry on the enhancement and appreciation of UK culture.
- Chapter 9 looks at the value of merchandising associated with the UK film industry.
- Chapter 10 looks at the way the UK film industry promotes the UK and its trade more generally.
- Chapter 11 summarises the overall economic contribution of the UK film industry.

## 4 Direct impact – Employment and GDP

The film industry in the UK has increased in size over the last 25 years. On the production side, there has been a steady rise in the number of UK feature films made, from an average each year of 43 in the 1980s to 83 in the 1990s and to 102 in the past four years since 2000<sup>6</sup>.

Similarly, on the exhibition side, the number of UK cinema admissions has grown, from an average of 78 million per annum in the 1980s to 119 million per annum in the 1990s, and to 163 million per annum since 2000<sup>7</sup>. In 2004, UK box office revenues amounted to £769.6 million from cinema admissions of 171.3 million<sup>8</sup>.

This chapter deals with the trends in employment, GDP and investment directly supported by these activities, and by the activities specifically related to film production in the UK and the distribution/exhibition of UK qualifying films. It also quantifies the direct contribution of companies and employees in the UK film industry to the Exchequer through income and other taxes.

### Key Points

- The UK film industry directly employed around 31,000 full-time equivalents (FTEs) in 2004 (including those self-employed).
- On a turnover of £2.3 billion, the direct contribution of the UK film industry to UK GDP is estimated to have been around £960 million in 2004.
- Capital investment in the UK film industry is estimated to have been £57 million in 2004, with most of the investment undertaken in the production and exhibition sectors. Over the last decade, fixed capital investment in infrastructure and new technology has totalled around £710 million.
- The direct tax contribution of the UK film industry via income tax, national insurance contributions, corporation tax and net VAT was £310 million in 2004 (gross of tax relief and other fiscal support).
- Tax incentives for the production of UK films amounted to £70 million in 2004/05 and the UK Film Council received direct funding of around £54 million from DCMS and the National Lottery in 2003/04 – a total of £124 million in financial support to the film industry.

<sup>6</sup> Number of UK Feature Films Produced 1912–2003, BFI.

<sup>7</sup> UK cinema admissions 1933-2003, BFI.

<sup>8</sup> Box office revenue figures and admission numbers from 'UK Film Council Statistical Yearbook 2004/05'.

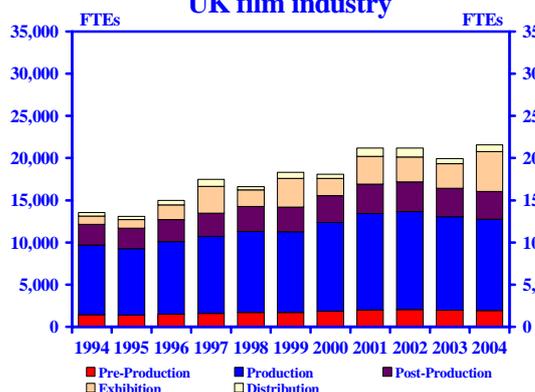
## 4.1 Direct employment

Employment in the UK film industry has been rising steadily since the mid-1990s (Charts 4-1 and 4-2). Total direct employment is estimated to be around 33,000 in 2004, or around 31,000 in terms of full-time equivalents (FTEs)<sup>9</sup>. This means that the UK film industry is approximately of similar size to, for example, the BBC<sup>10</sup> or the book publishing industry.

These estimates (and our estimates for the UK film industry's contribution to GDP and investment presented below) are based on the results for 2002 from a detailed survey of 400 companies in the screen industries for the Optima/CE study, updated for growth in employment in the industry over the past two years<sup>11</sup>. We adjust the CE estimates for the distribution / exhibition sector to focus solely on activity associated with UK-qualifying films on the basis of the proportion of box office admissions to UK films over the 1994-2004 period.

Chart 4-1:

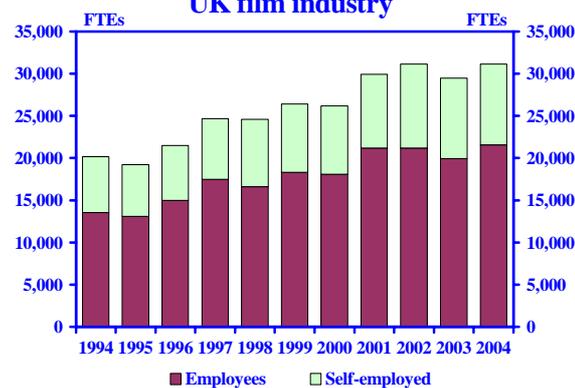
Employees in the UK film industry



Source: CE; ABI; ONS; DCMS; OEF estimates

Chart 4-2:

Total employment in the UK film industry



Source: CE; ABI; ONS; DCMS; OEF

Of those who work in the UK film industry, an estimated 1,900 FTE employees (or 6.1% of the total) work in the development/pre-production sector; 10,800 FTEs (34.8%) work in the production sector; the post-production sector supports FTE employment of around 3,300 (10.6%); distribution supports 800 FTE jobs (2.6%); and exhibition supports 4,700 FTE jobs (15.2%). Self-employment of around 9,500 FTE jobs (30.6%) accounts for the remainder of the workforce.

<sup>9</sup> Based on the assumption that one part-time job equates to 0.5 of a full-time job.

<sup>10</sup> The average number of persons employed in 2005 was 27,264 according to the BBC Annual Report and Accounts, 2004/05.

<sup>11</sup> Using the Labour Force Survey and a three year moving average trend to smooth out any peaks and troughs likely to be created by small survey sampling.

**Table 4-1: Employment in the UK film industry, 2004**

Film Sector	Employment		
	Total jobs	FTE jobs	FTE jobs (incl. self-employed)
Pre-production	2,000	1,900	3,100
Production	11,300	10,800	18,000
Post-Production	3,400	3,300	4,400
Distribution	900	800	800
Exhibition	5,400	4,700	4,700
<b>Employees</b>	<b>23,000</b>	<b>21,500</b>	<b>31,000</b>
Self-employed	10,000	9,500	-
<b>Total</b>	<b>33,000</b>	<b>31,000</b>	<b>-</b>

Source: CE; ABI; ONS; OEF estimates

The growth of UK film industry employment over the past decade mainly reflects the following key factors:

- A 32% increase in employment in the production sector since 1994, creating an additional 3,800 FTE jobs.
- A more than five-fold increase in employment in the exhibition sector since 1994, from 900 to 4,700 FTE jobs in 2004.
- An increase in self-employment since 1994, creating an extra 3,000 FTE jobs, although the share of self-employment in the UK film industry has remained roughly constant over the 1994-2004 period.

Overall, the UK film industry has created around 11,000 new FTE jobs since 1994.

## 4.2 Direct contribution to GDP

The standard method for calculating the direct contribution of an industry to GDP is to measure its so-called value added – that is, to calculate the difference between the industry's total pre-tax revenue and its total bought-in costs (ie costs excluding wages and salaries) adjusted for any changes in stocks.

On this basis, we estimate that, on a turnover of £2.3 billion, the UK film industry contributed around £960 million to UK GDP in 2004. This means that the UK film industry contributed slightly more to GDP than, for example, the 'manufacture of machine tools' or the 'manufacture of weapons and ammunition industries'. Table 4-2 shows the composition of UK film industry value added. In 2004, the production sector accounted for around three-quarters of total value added, with the distribution/exhibition sector accounting for the remaining one-quarter.

**Table 4-2: Sales and value added in the UK film industry, 2004**

Film Sector	Sales £ million	Value added £ million
Pre-production	210	90
Production	1,180	480
Post-Production	370	150
Distribution	290	130
Exhibition	250	110
<b>Total</b>	<b>2,300</b>	<b>960</b>

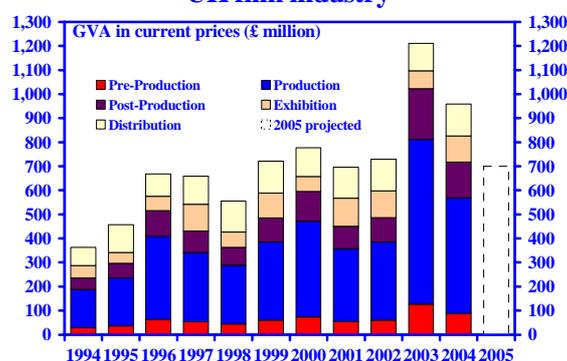
Source: CE; ABI; ONS; OEF estimates

Value added in the UK film industry has increased on average by 10.2% per annum over the 1994-2004 period in current prices (Chart 4-3) or 7.4% in real (inflation-adjusted) terms (Chart 4-4). This is faster growth than recorded by the overall economy, with the direct contribution of the UK film industry to GDP more than doubling in real terms since 1994.

The UK film industry was hit harder by the downturn in the global economy in 2001 and 2002 than the economy as a whole, but recovered strongly in 2003. Value added in 2005 is expected to be significantly lower than 2004 at around £700 million.

**Chart 4-3:**

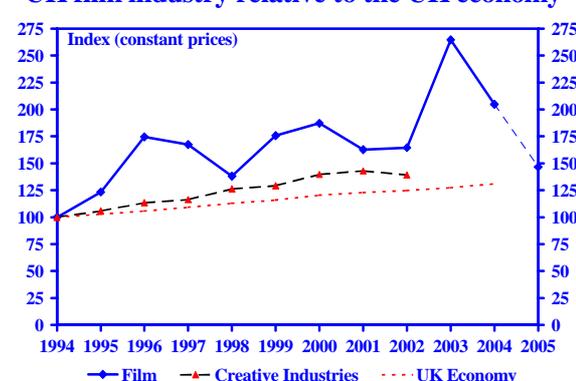
**Value added in the UK film industry**



Source: CE; ABI; ONS; DCMS; OEF estimates

**Chart 4-4:**

**Growth (in real terms) in value added in the UK film industry relative to the UK economy**



Source: CE; ABI; ONS; DCMS; OEF estimates

The trend in value added over time is largely due to changes in the level of production spend in the UK. The high growth over the 1994-2004 period reflects an increase from a very low base of £242 million in 1994 to £812 million in 2004<sup>12</sup>. More recently, the trend has started to turn, falling from £1,158 million in 2003 to a projected spend of less than half that in 2005 (£532 million, see Chart 4-5).

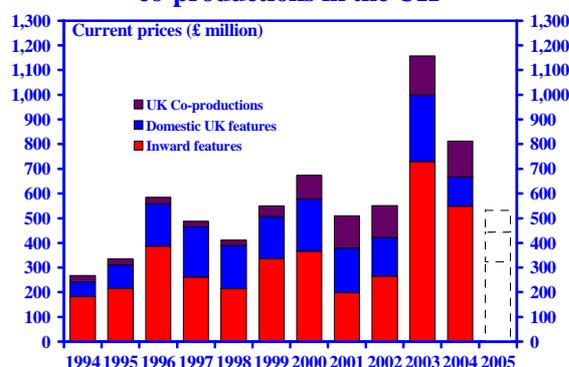
<sup>12</sup> Figure 12-2, Film Council Statistical Yearbook 2004/05.

At the heart of the changes in UK production spend are inward investment productions<sup>13</sup>, which trebled in value over the 1994 to 2004 period. Inward productions now account for 67% of production activity in the UK, with US studios responsible for 84% of these. However, 2004 saw a significant fall in inward investment productions to £549 million from a high in 2003 of £730 million<sup>14</sup>. And this downturn is expected to continue, with inward investment films estimated by the UK Film Council to be only £324 million in 2005.

Our discussions with key companies in the production sector suggest that uncertainty over the tax regime is at the heart of the fall in inward investment productions in 2004 and 2005. So, it seems that while the current fiscal regime has enabled the industry to succeed over the last decade, its future success cannot be taken for granted.

**Chart 4-5:**

**Trends in inward, domestic and co-productions in the UK**



Source: UK Film Council

### 4.3 Direct investment

Across the UK film industry, fixed capital investment attributable to the UK film sector is estimated to have been £57 million in 2004. A significant amount of investment is required in, for example, the development of studio locations and sets, the purchase of film equipment and computer systems, and in the building and refurbishment of cinema facilities.

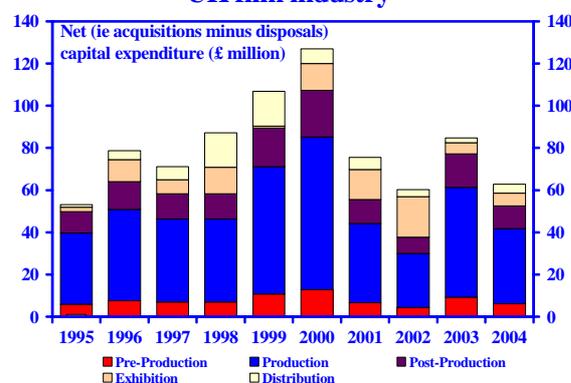
The amount of investment that has been undertaken over the past three years is slightly down on the decade average of £71 million, as shown in Chart 4-6. However, investment in the film industry tends to be lumpy and trends are hard to interpret given volatility from one year to the next.

<sup>13</sup> An inward investment film is defined by the Film Council as a feature film more than 50% financed from outside the UK where the production is location non-specific or is attracted to the UK because of its infrastructure.

<sup>14</sup> UK Film Council Statistical Yearbook 2004/05.

Chart 4-6:

Capital investment in the  
UK film industry



Source: CE / ABI / OEF estimates

Table 4-3 shows average investment in each sector of the UK film industry over the last five years. Investment per FTE worker on average has been £2,800 per annum, with the highest investment in the distribution sector, at £5,700 per annum. In the production (including pre- and post- production) sector, investment per FTE worker has been around £2,600 a year since 2000.

Table 4-3: Investment in the UK film industry

Sub-sector	Net capital investment (per annum average for 2000-4)		
	£ million	£ per FTE employee	£ per FTE worker (incl. self-employed)
Production	66.0	4,020	2,580
Distribution	4.5	5,721	5,721
Exhibition	11.5	3,675	3,675
Total	81.3	4,033	2,772

Source: CE; OEF estimates

The amount of capital investment per employee in a company/sector is often a good indication of the productivity of the workforce. The more capital intensive the industry, the higher the value added per worker is likely to be.

#### 4.4 Direct tax revenues

##### (a) Contribution to Exchequer

The UK film industry is estimated to have contributed around £310 million to the Exchequer in 2004 (gross of tax relief and other fiscal support). This is equivalent to 25% of value added in the UK film industry. Over half of the tax revenues raised for the Exchequer arise from income taxes and national insurance.

**Table 4-4: Estimates of direct tax contribution from the UK film industry, 2004**

	Tax revenues (£ million)
Income tax	77
National insurance – employee	42
National insurance – employer	48
Value added tax	23
Corporation tax (gross <sup>15</sup> )	105
Withholding tax	15
<b>Total</b>	<b>310</b>

Source: HM Revenue & Customs; ONS; OEF estimates

##### (b) Fiscal support to the UK film industry

The UK film industry receives funding from both central and local government, from the National Lottery and from other public sector organisations. DCMS is the government department with overall responsibility for setting policy in respect of Lottery and grant-in-aid support for film in the UK. The UK Film Council is responsible for the disbursement of the majority of DCMS funding for film, with the exception of funding for the National Film and Television School.

The UK Film Council was established by the government in 2000 as its strategic agency for developing the film industry and film culture in the UK. The UK Film Council's aim is to stimulate a competitive, successful and vibrant British film industry and culture, and to promote the widest possible enjoyment and understanding of cinema throughout the nations and regions of the UK. It does this through a range of funding and policy interventions.

The UK Film Council received around £24 million in 2003/04 directly from DCMS. In addition, the UK Film Council received support from the National Lottery amounting to £29.8 million in 2004/05. This funding is directly dependent on the magnitude of lottery ticket sales and so is expected to decline slightly over the next few years (see Table 4-5).

The UK Film Council disburses these funds via the following:

- The British Film Institute (bfi): Around £16 million per year is invested in promoting an understanding and appreciation of Britain's film and television heritage and culture, including support for the bfi National Film Theatre and the National Film and Television Archive.

<sup>15</sup> Corporation tax (gross) is equal to the corporation tax liability without the government tax relief given under Section 42/48. The Corporation tax (net) figure is £35 million based on the gross figure (ie £105 million) minus that given in film tax relief worth £70 million. See Appendix for detailed discussion.

- Various funds: These include the Premiere Fund to stimulate entrepreneurship in the production sector by supporting commercially viable projects; the New Cinema Fund which supports new talent and innovation on lower budget films; the Development Fund which funds writers and stimulates cross fertilisation with the production sector; and a Distribution and Exhibition Fund which funds investment in distribution and exhibition of specialised and indigenous British film.
- Film Franchises: £90 million was invested by Arts Council England and administered by UK Film Council since 2000 in three franchise companies, DNA, The Film Consortium and Pathe, over the period 1997 – 2004.
- Nations and Regions: £8.5 million per year is invested in the nine English regional screen agencies and three national agencies (Scottish Screen, Sgrîn Cymru Wales and the Northern Ireland Film and Television Commission) to support film and film-related activities across the UK.
- UK Film Council International: £1.7 million per year invested in supporting inward investment into the UK film sector and the export of UK films.
- Skillset: £6.5 million per year is delegated to Skillset, the Sector Skills Council for the audiovisual industries, in order to address training needs across the spectrum of film.
- First Light: £1 million a year to provide children between 5-18 with experience of film-making.
- Diversity: £300,000 per year invested in promoting diversity in the industry and in film, and ensuring that issues of diversity are considered at every level of policy development and implementation.

Adding the DCMS and the National Lottery contributions to the UK Film Council means that support to the UK film industry was in the region of £54 million in 2004/05.

**Table 4-5: Direct government support for Film, 2003/4-2005/6**

	<b>Grant-in-aid to UK film (£ million)</b>	<b>National Lottery Funding (£ million)</b>	<b>Total support (£ million)</b>
2004/05	24.1	29.8	53.9
2005/06	24.1	24.0	48.1
2006/07	24.1	23.3	47.4
2007/08	24.1	23.2	47.3

*Source: UK Film Council*

There are also tax incentives for film production under Section 42 of the 1992 Finance Act and Section 48 of the 1997 Finance Act 1997, with the latter being used by low budget films (less than £15 million). HM Treasury estimates that film tax relief was worth around £70 million in 2004/05, although this figure has declined substantially over recent years as shown below.

**Table 4-6: Section 42 and Section 48 support to film production**

Year	Film tax relief (£ million)
2001/02	240
2002/03	300
2003/04	140
2004/05	70

Source: *Financial Statement and Budget Report 2005 (Table A3.1);  
Financial Statement and Budget Report 2003 (Table A3.1)*

Adding Section 42/48 tax incentives to UK Film Council funding and other support from the National Lottery produces around £124 million worth of financial support to the UK film industry.

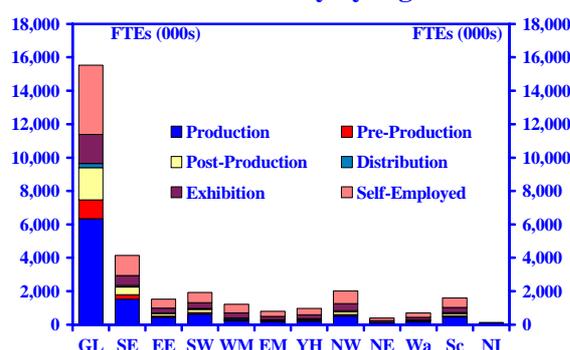
In addition, public sector support for film is provided by many local authorities, the British Council, the Arts Councils of Scotland, Wales and Northern Ireland. This is given to, for example, specialised films and art-house cinemas, although comprehensive figures on the amount of support provided by these organisations are not currently available. DCMS also contributed £2.5 million in 2003/04 to the National Film and Television School located in Buckinghamshire.

#### 4.5 Direct regional impacts

The UK film industry contributes particularly to employment in London and the South East, although there are also sizeable operations in a number of other regions. Around 15,500 FTEs, or 50% of total jobs, are concentrated in the London area, with a further 4,100 (13%) in the South East. The North West, South West and Scotland are the regions where the next largest number of jobs are located at 2,030 jobs, 1,900 jobs and 1,600 jobs respectively.

**Chart 4-7:**

#### Employment in the UK film industry by region



Source: OEF / CE / LFS / ABI

An important characteristic of the film industry is its propensity to cluster as geographical proximity brings significant benefits. Examples of key clusters include:

- Soho and Westminster – the core of film activity in the UK, where many production companies are located including the large US distributors as well as many UK

independents. The post-production and digital effects sectors are ones which are particularly concentrated in this locality<sup>16</sup>.

- Pinewood-Shepperton – one of the UK's and world's leading studios companies, located on the outskirts of London in Buckinghamshire and Middlesex, providing studio and related services to the film and television industries. Accommodation is provided to over 200 businesses which benefit from being located at Pinewood or Shepperton Studios, and large numbers of film-linked businesses have clustered in a wide geographical area around the site.
- Elstree and Leavesden studios – two major studios located in Hertfordshire, in Borehamwood and Leavesden respectively. The studios service many US-funded film productions such as Harry Potter currently being filmed in Leavesden. Many small companies exist around these studios supplying services to those companies located onsite at the studios.
- Ealing studios – based around the studio is a wide range of companies in the media and technology sector providing a full range of production services to the UK film industry. The studio is one of the oldest film studios in the world and was responsible for many British films during the golden era of the UK film industry in the 1930s, 40s and 50s. Ealing studios has recently returned to film after a gap of many decades with the making of high-profile films such as Notting Hill and Star Wars – Episode 2.

The clusters of activity in London concentrated around facilities in Soho and, to a lesser extent, West London are shown below.

**Figure 4-1: Film Sector employment in London (2000)**



Source: *Understanding London's Sectors*, London Development Agency (November 2003)<sup>17</sup>

The film industry is also part of a wider screen industry (ie film, TV, corporate video and advertising) cluster. Indeed, multi-sector working is particularly widespread, with around 50% of firms in the screen industries operating in more than one screen industry sector, ranging from 35% of firms in the South East to 51% in London and 67% in Northern

<sup>16</sup> London Cultural Capital – Realising the potential of a world-class city, Greater London Authority (April 2004).

<sup>17</sup> The DTI identifies film as one of the key clusters in London along with financial services, publishing, photography, advertising, TV and radio, music, business services, computer/communications services, property & real estate, and tourism, travel & entertainment (*Business Clusters in the UK – A First Assessment*, Volume 2 Regional Annexes London).

Ireland<sup>18</sup>. Removing one screen industry sector such as the film sector would therefore impact on a much larger proportion of firms than that represented by the share of the film sector within the total screen industry (these multiplier impacts are covered in Chapter 6).

A wide literature has developed on the benefits of economic clustering, recognising the mutual advantages that occur in some cases when firms in similar or related industries cluster together. Concentration of both labour and demand for specialist services leads to agglomeration economies (ie benefits from related economic activities taking place close together) and economies of scale.

The existence of clusters boosts growth through a variety of ways. Clusters raise productivity by allowing access to specialised inputs and employees, and increase firms' capacity for innovation by diffusing technological knowledge and innovations more rapidly. They also stimulate higher rates of new business formation, as employees become entrepreneurs in spin-off ventures. In addition, clusters may increase the attractiveness of UK locations to inward investment by leading edge companies in the film industry (see Chapter 10 on the promotion benefits of film).

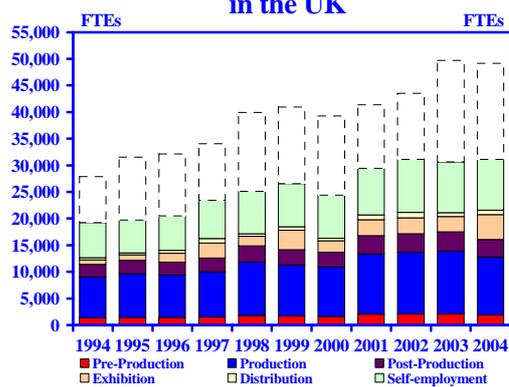
#### 4.6 Economic impact from non-UK films

The above sections provide estimates of employment and value added for the UK film industry only. A further 18,000 people are directly employed in the film industry supported by the distribution and exhibition of foreign-made films.

In the whole of the film industry in the UK (ie including the activity associated with the distribution/exhibition of films made abroad), the total employment supported is therefore nearly 50,000 FTE jobs, with a GDP contribution of £1.8 billion in 2004. Charts 4-8 and 4-9 illustrate the trend in employment and value added over the 1994-2004 period.

Chart 4-8:

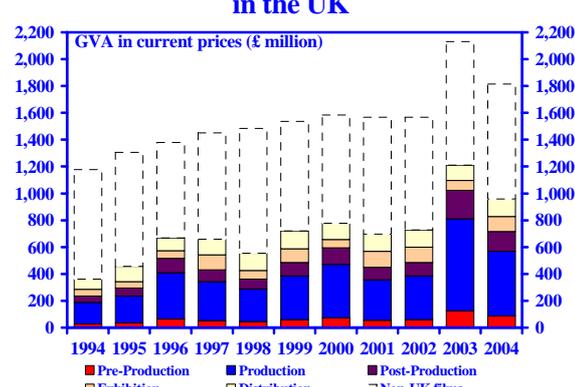
Employment in the film industry in the UK



Source: CE; ABI; ONS; DCMS; OEF estimates

Chart 4-9:

Value added in the film industry in the UK



Source: CE; ABI; ONS; DCMS; OEF

<sup>18</sup> Table B1, Economic impact of the UK Screen Industries, Cambridge Econometrics (May 2005).

#### 4.7 **Summary**

The UK film industry makes a substantial direct contribution to UK GDP, employment, taxation and investment. GDP and employment have increased over the past decade through the expansion of the production sector, particularly from inward investment features, and an increase in self-employment.

## 5 Productivity – skills education and training

This chapter looks at productivity in the UK film industry through analysis of key indicators such as average wages, educational attainment, skills and training.

### Key Points

- In the production sector, the workforce is well qualified. Some 46% of the workforce are graduates in the production sector as a whole (including pre- and post-production), rising to 66% in the post-production sector. Average gross wages in the UK production sector are £37,300 per annum.
- Highly skilled workers in computing/technology-related occupations command the highest wages. For example, average wages in the post-production / editing / visual effects sector are around £45,700 per annum.
- A key feature of the UK film industry's workforce is flexibility. Workers not only have to contend with frequent periods of unemployment but also, when actually working, with long hours per day – around three-quarters of people worked more than an average of 11 hours per day on their most recent film production.

### 5.1 Qualifications and demographics

A detailed survey of the workforce in the UK film production sector (ie excluding exhibition/distribution) has recently been undertaken by Skillset<sup>19</sup>, with the objective of understanding in detail the working patterns, skills and training within the industry.

One of the key findings from the survey is that people working in the production sector of the UK film industry have on average a higher level of qualifications than the population at large. In particular:

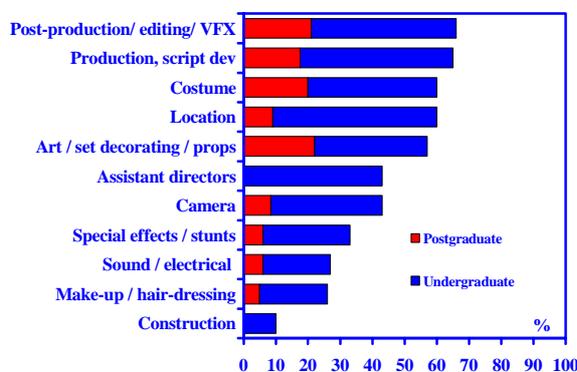
- 46% of the workforce are university educated with either a postgraduate qualification (13%) or an undergraduate qualification (33%), compared to 16% for the working age population as a whole<sup>20</sup>.
- 31% of the workforce have a graduate level qualification specifically relevant to the UK film industry.
- The production/script development, post-production (editing / visual effects) and costume sectors are the most qualified parts of the workforce, with 66% being graduates (see Chart 5-1).
- The lowest income group includes some of the most highly qualified people. Around 61% of people who earn less than £15,000 per annum are educated to degree level. Undertaking unpaid work is increasingly seen as the way to enter the film industry from university – some 45% of people who entered the industry since 2000 did unpaid work first before securing paid employment.

<sup>19</sup> Feature Film Production Workforce Survey 2005, Skillset, The Sector Skills Council for the Audio Visual Industries.

<sup>20</sup> Source: Population of working age: by highest qualification, spring 2003: Regional Trends 38.

Chart 5-1:

Highest qualification obtained  
by the UK film industry workforce

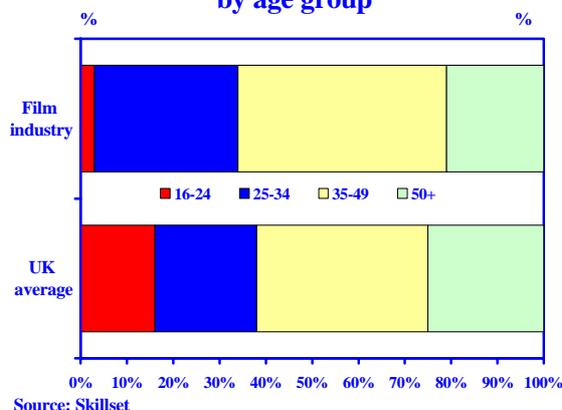


Source: Skillset

The average age of the workforce in the production sector, at around 40, is slightly above the average for the UK economy, going somewhat against the common perception that the film industry is a young person's industry. However, the majority of people do not enter the film industry until after they have secured a degree qualification (ie their early to mid-20s), and only 3% of the people working in the film industry are in the 16-24 age group compared to the UK average of 16%. The film industry is over-represented in the 25-34 and 35-49 age groups (see Chart 5-2).

Chart 5-2:

UK film industry workforce  
by age group



Source: Skillset

## 5.2 Wages and salaries

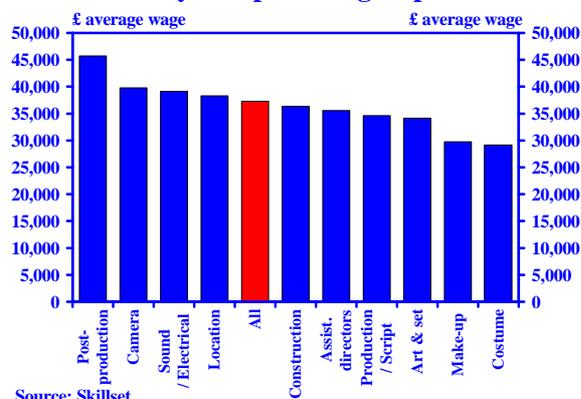
According to the Skillset survey, the average gross income per annum for workers in the UK production sector is £37,300, which is 48% higher than the UK average for full-time employees of £25,200 in 2003. Value added per FTE worker (including self-employment) is estimated to be around £31,000 in 2003, although this figure fluctuates significantly as a result of UK film production spend changing from one year to the next.

The occupations which earn the highest wages are in post-production, sound/electrical and camera operators.<sup>21</sup>

<sup>21</sup> The average wage is calculated based on the mid-point of each salary band (from Skillset).

Chart 5-3:

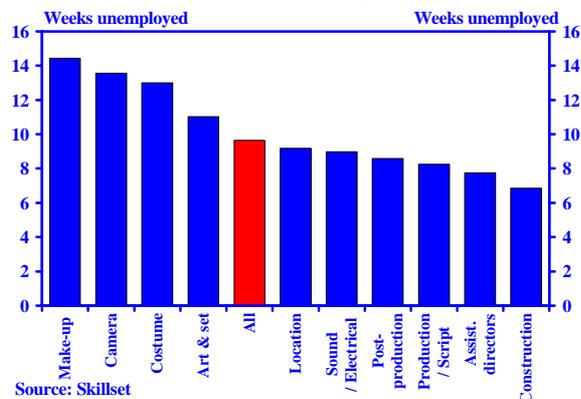
Average annual gross income  
by occupational group



Although the average wage in the industry is above the UK economy-wide average, the film production sector's workforce typically faces a difficult and uncertain working environment. Levels of unemployment are higher than for many other occupations, with 71% of people in the production sector experiencing a spell of unemployment in the past year (and around 35% being unemployed for more than 10 weeks). Unemployment is most common in areas such as make-up, art / set decorating / props and costume, as well as some more technical areas such as camera operators.

Chart 5-4:

Average length of unemployment  
by occupational group



Evidence from the Skillset survey suggests that the film production sector's workforce is flexible. People often have to secure sources of income from other industries and, when required, working long hours is the norm. Respondents were asked on average how many hours per day they had worked on one of their recent productions:

- 21% of people worked on average 9-10 per day.
- 42% of people worked on average 11-12 per day.
- 27% of people worked on average 13 hours or more.

Long hours are not only required to meet the urgent deadlines essential for film production but also, perhaps, to make up income following previous bouts of unemployment.

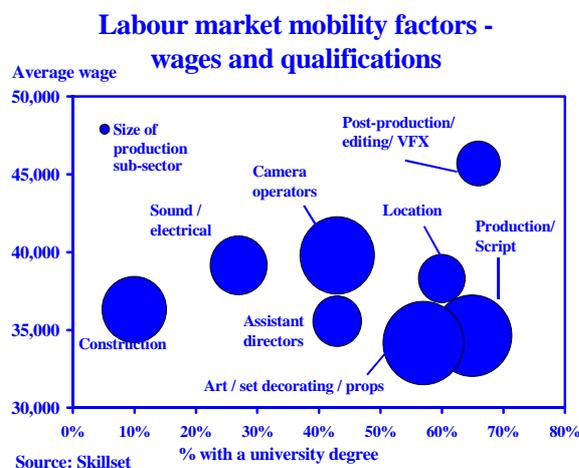
### 5.3 Skills and mobility

The UK film industry is increasingly competing in a global market, not only for the top performing actors to star in the latest UK blockbusters but also in the international labour market for production (pre-production/production/post-production) workers themselves. So, if limited opportunities exist in the UK for people to work in the film industry, there is a risk that the labour force will move abroad for better prospects and careers – the skills used in the UK film industry are inherently transferable to companies in other countries.

The workforce has a number of attributes to suggest a high degree of international mobility. Although the workforce is not younger than the UK average, it is significantly over-represented in the 25-34 age group. This group probably has a higher propensity to travel to work abroad than say over-35s, who may have family ties, or under-25s, who may not have the skills, training and experience required by companies in other countries.

One factor which may have an influence on the mobility of labour in the film industry is the average wages. People who earn higher wages are more likely to have higher levels of skills and more easily transferable skills, and therefore companies have a greater incentive to recruit them in an international market. Another factor could be internationally recognised qualifications such as undergraduate and postgraduate degrees. The chart below plots the relationship between average wages and university qualifications in the film industry. It shows that the post-production segment is ranked highly across these indicators and therefore may well have the most internationally mobile workforce.

Chart 5-5:



Another factor which affects mobility is nationality. The UK film industry attracts many highly skilled foreign workers to the UK. Figures obtained from around a dozen key companies suggests that around 10-15% of the production workforce is from outside the UK.

Overall, taking into account all of these factors, our discussions with UK production companies suggest that up to one-quarter of staff would eventually relocate if the tax and other considerations meant that the UK was no longer attractive to investors in film. In value added terms, the proportion could be even higher as this one-quarter often represents higher-skilled and higher-waged individuals.

While the UK film industry employs many highly skilled workers, there is widespread acknowledgement within the UK Film Council and the film industry itself that these skills

need to be continually updated and developed to stay on the knowledge frontier. Indeed, boosting and updating skills in the UK film industry is a key priority within the UK Film Council (see Box 5-1).

#### **Box 5-1 A Bigger Future - The UK Film Skills Strategy**

A Bigger Future is a long-term training and education strategy for improving skills in the UK film industry. It builds on the key strengths of the industry and is aimed at people right across the industry – from those who are yet to enter the industry, who need help in acquiring valuable qualifications and experience, to those already in the industry, who need career development and further technical training.

The key objective of the strategy is “to ensure that the UK industry is able to compete successfully in the European and global marketplace on the basis of world beating skills”<sup>22</sup>, and is focused in the following four key areas: careers information, advice and guidance; further, higher and postgraduate education; new entrants, professional and company development; and collecting and analysing information.

The implementation of the strategy has been handled by Skillset (the sector skills council for the audiovisual industries) with guidance from a Film Skills Strategy Committee (which has representatives from the UK Film Council, Skillset and the UK film industry). Each year, Skillset works closely alongside producers, directors, writers, technicians, actors, distributors and exhibitors to identify the training priorities for the year. Some of the initiatives currently being run in 2005 include:

- Skillset Guiding Lights: a mentoring scheme for existing talent in the industry
- A Skillset Screen Academies Network, including the Skillset Film Business Academy
- Short-course training schemes in production, post production, distribution and exhibition
- In-house training schemes for emerging producers and 2D/3D animation in post-production
- Events and masterclasses including, for example, sessions on how to get into the industry at film festivals across the UK
- Initiatives on screenwriting for writers, producers and development executives
- In-house management training for those working in exhibition
- Skillset Film Trainee Network - providing opportunities for runners/trainees to advance in the industry

## **5.4 Summary**

Many people employed in the UK film industry are highly qualified and have valuable and specialist skills of great benefit to the UK economy. Without a robust UK film industry there is a risk that, in an increasingly global market, these productive skills would be lost as people migrate to work in other countries.

<sup>22</sup> A Bigger Future - The UK Film Skills Strategy, UK Film Council and Skillset (September 2003).

## 6 Multipliers and linkages

As well as the direct contribution of the UK film industry to the economy, there are indirect impacts on employment and output through the supply chain of the film industry, and induced impacts from those directly and indirectly employed in the UK film industry using their earnings to buy other goods and services. This chapter summarises these different multiplier impacts.

The multiplier impacts also depend on the extent of linkages between sectors and regions, and these issues are also examined in this chapter.

### Key Points

- The UK film industry helps to support 62,000 FTE jobs allowing for those directly employed, for those employed in companies supplying the film companies and for the jobs dependent on the spending of film industry workers.
- The UK film industry contributes overall around £1.9 billion a year to UK GDP, taking into account direct, indirect and induced impacts – equivalent to 0.16% of UK GDP.
- For every job supported in the UK film industry, a further job is supported through indirect and induced multiplier impacts.
- There are significant links with other screen industries which go much further than just a supplier relationship. These links enable economies of scale and scope to be better exploited.
- The UK film industry and its employees direct and multiplier contribution to UK tax revenues was £580 million in 2004.

### 6.1 Estimates of the multiplier for the UK film industry

The multiplier for the UK film industry is estimated to be around 2.0<sup>23</sup>. This means that for every 10 jobs directly supported by the UK film industry, another 10 are supported indirectly in the supply chain and from the induced spending of those directly or indirectly employed by the UK film industry. The multiplier value is similar to the value estimated for the other screen industries, TV, corporate video and advertising industries.

The figure of 2.0 is the combined multiplier impact representing the sum of the so-called 'indirect' and 'induced' impacts of the UK film industry on the UK economy over a four-year time horizon. In particular, it includes both the employment/value added of the sectors in the supply chains of the UK film industry (eg manufacture of film equipment, manufacture of consumer goods sold in cinemas, the TV and media industry, the advertising industry and other business services etc) and also the employment/value added induced by the spending of those either directly or indirectly employed in the UK film industry.

<sup>23</sup> Economic impact of the UK Screen Industries, Cambridge Econometrics (May 2005). In the terminology this is a "Type II" multiplier and in formula terms is equal to (direct impact + indirect impact + induced impact) / direct impact.

## 6.2 Value added and employment

Including direct and multiplier (indirect and induced) impacts, we estimate that the UK film industry supported around 62,000 FTE jobs in 2004 with a value added contribution to GDP in the region of £1.9 billion. This is equivalent to 0.16% of UK GDP.

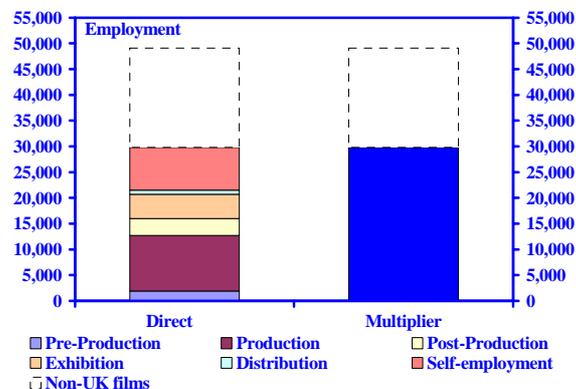
This impact comprises:

- **Direct** employment in the UK film industry of around 31,000 FTEs in 2004, contributing value added of £960 million to GDP in the UK economy.
- **Multiplier** employment in other industries of 31,000 FTEs supported through purchases of goods and services by companies in the film industry, and from employment supported by employees in the film industry (whether direct or indirect) using their income to purchase goods and services for their own consumption. The value added contribution to GDP from these supported jobs is estimated to be a further £960 million in 2004.

Indirect jobs supported include those in the retail sector generated from the consumer purchases of goods at cinemas, in the TV/ media industry, the advertising industry, in the financial and business services sector, or the workers required to manufacture production equipment and videos. Induced jobs are likely to include jobs in retail and a range of service industries (see Box 6-1 for a case-study analysis of the links with other sectors).

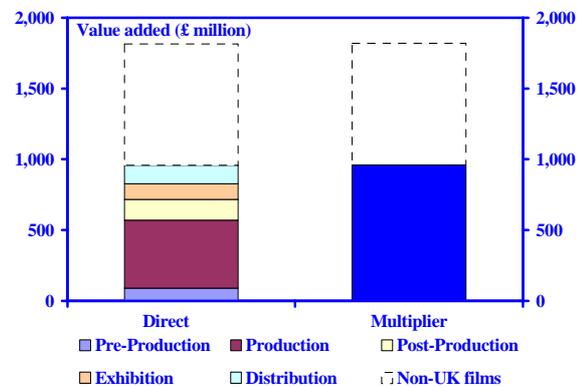
**Chart 6-1:**

**Direct indirect and induced employment in the UK film industry in the UK**



**Chart 6-2:**

**Direct indirect and induced value added in the film industry in the UK**



### Box 6-1 : Linkages with other sectors – a case study of Pinewood Shepperton Studios

Pinewood Shepperton plc is one of the world's leading studios companies, created from the merger of Pinewood Studios Limited and Shepperton Studios Limited in 2000, and is at the forefront of the UK film industry. Over the 70 year history the constituent companies have handled over 1,500 films. Facilities at both sites include 34 stages, two digital television studios, 14 sound theatres, production offices, workshops, an outdoor paddock tank, an underwater filming stage and four backlots for set building.

Turnover of £38.5 million in 2004 was generated by the company, of which the majority originated from the film sector. 'Film Stage Services' revenues of £21.5 million accrued from productions including *Charlie and the Chocolate Factory*, *Batman Begins*, *Harry Potter and the Goblet of Fire*, *Sahara*, *King Arthur*, *Bridget Jones*, *Mrs Henderson Presents*, *Russian Dolls* and *Nanny McPhee*.

Pinewood-Shepperton is a key part of the film industry but its economic impact goes much further than this one sector. It provides studio and related services to both the film and television industries. Additional revenues are Television and Sound Services (£10.7 million), and Media Park income (£6.3 million) through activity in 2004 on 54 commercials and pop promos and 26 TV dramas or specials. Its core film activities therefore support economic activity in other sectors, notably media and TV. This is an economies of scope benefit arising as film contributes to an element of fixed overhead operating costs for the studios. Without this contribution from film, Pinewood-Shepperton would not be able to deliver these other services at the same cost (or at all).

The studio has a significant influence on the local, regional and UK economy. In terms of the key economic impacts, a 2005 study<sup>24</sup> specifically for the Shepperton part of the business found:

- **Direct employment impact** – on-site employment is in the region of nearly 1,350 FTEs. Some 72 (FTEs) people are employed directly by Shepperton Studios Ltd. But the studios are also home to a wide number of other businesses, in particular 709 FTEs in the 82 tenant companies located on-site and a further 570 FTEs who work on specific productions.
- **Indirect and induced impact** - a further 1,181 FTE jobs were supported in sectors providing services to Shepperton Studio and the tenant companies located on-site, of which 251 FTE jobs were supported in the local borough. Expenditure associated with this indirect impact is £34.3 million.

<sup>24</sup> Economic Impact Evaluation of Shepperton Studios, DTZ Pieda Consulting (March 2005).

### 6.3 Direct and multiplier tax contribution

To the extent that the film industry supports the employment and value added activities of other firms in its supply chain and from induced spending, it also supports tax contributions from those firms and employees. Assuming that the tax multiplier is the same as the employment multiplier then multiplier tax contribution is estimated to be approximately £270 million<sup>25</sup>. Overall, the total tax contribution – including direct, indirect and induced impacts – to the Exchequer was £580 million in 2004.

**Table 6-1: Estimates of the total tax contribution, 2004**

Impact	£ million
Direct	310
Multiplier	270
Total	580

Source: OEF estimates

### 6.4 Summary

The contribution of the UK film industry from direct and multiplier impacts is estimated to be around 62,000 FTE jobs, with a value added contribution to GDP in the region of £1.9 billion.

The UK film industry supports other industry through its purchases of goods and services. But its links with other screen industries – Television, Corporate Video, Commercials/ Advertising and Interactive – go much deeper than just a supplier relationship. It shares the fixed costs of infrastructure and studios, enabling economies of scale and economies of scope to be better exploited.

<sup>25</sup> The tax multiplier is applied to income tax, national insurance and corporation tax. No tax multiplier is applied to VAT and the withholding tax (see Appendix for a more detailed discussion).

## 7 Tourism

The impact of UK films can be seen well beyond the industry itself. Tourism is an important part of the UK economy, directly employing over 1 million people<sup>26</sup>, and this will be affected by the film industry to the extent people's choices of places to visit are influenced by the films that are seen. In some ways, paying attention to the impact of film location on tourism can be seen as just a specific example of product placement in a film, with the product in this case being a (potential) tourist destination. This chapter focuses on the ways in which film plays a part in the choice of places people visit, and considers the likely scale of the impact in the UK.

### Key Points

- Surveys suggest that one in five visitors to the UK come as a result of seeing the country depicted in film and television.
- There are also numerous examples of specific sites used as locations in a popular film that have seen visitor numbers increase hugely after the film is released.
- Quantifying the value of these effects for the UK tourism industry is difficult, but tourism organisations clearly recognise the importance of film as a driver behind visitor numbers, and our estimates suggest that anywhere in the range of £400 million - £1.6 billion a year of visitor spending might result from the impact of UK films.
- In 2004, additional spending is estimated to have been worth an additional £800 million in GDP to the UK economy and £170 million to the Exchequer.

### 7.1 General impact

There are a number of ways in which film can affect tourism. The next section looks at the interest in visiting the specific locations in which films have been shot. But there are more general impacts as well. For example, overseas visitors can be encouraged to visit the UK as a result of seeing films set here:

- Seeing films about the UK can mean people feel they have a better knowledge or understanding of the UK, and therefore feel they will get more out of a visit;
- Films set in the past can encourage an interest in UK history and a desire to find out more by visiting;
- Films can showcase UK scenery and encourage a desire to see it at first hand;
- A film set in the UK can simply remind people about the UK as a possible destination for a visit in a world where an increasing range of potential destinations are competing.

<sup>26</sup> 1,054,000 in 2004 according to the World Travel & Tourism Council: WTTC 2005 Travel & Tourism Economic Research.

A widely quoted estimate, derived from a variety of VisitBritain overseas surveys, is that one in five visitors to the UK come as a result of seeing the country depicted in film and television<sup>27</sup>.

Of course, this covers both TV and film and so is potentially wider than the impact of film alone. In the UK, for example, people spend more than 20 times as much time watching TV as going to the cinema or watching videos<sup>28</sup>. However, films are also shown on TV, with around 12% of peak time hours in the UK devoted to film by the terrestrial broadcasters<sup>29</sup>. Moreover, most of the television watched by overseas visitors will have nothing to do with the UK, and the relevant factor is more likely to be the relative time spent watching UK films compared with, for example, UK TV dramas or perhaps sitcoms. So, it is quite possible that film is the dominant factor over TV in depicting the UK to potential overseas visitors.

## 7.2 Film locations

People are not only encouraged by film to visit countries they have seen depicted in a film. There are also people who are interested in visiting the specific location in which a film, or an individual scene in a film, was shot. Alnwick Castle, for instance, used as the location for Hogwarts School of Magic in the Harry Potter films, saw visitor numbers more than double between 2001 and 2002 after the release of the first of the series of films in November 2001, from around 61,000 in 2001 to 139,000 in 2002<sup>30</sup>. On a slightly smaller scale, the Queen Elizabeth suite at the Crown Hotel, Amersham, found itself booked up a year in advance, after being used for a key scene in 'Four Weddings and a Funeral' in 1994<sup>31</sup>.

One way this has been exploited is through the production of 'movie maps'. So, for example, VisitBritain, supported by Warner Brothers, produced a map to take advantage of the release of the first Harry Potter film, highlighting both locations used in the film and other sites around the UK linked to themes in the film. A more recent movie map campaign by VisitBritain in 2004 consisted of three separate maps: one based round 'Master and Commander'; one linked to 'King Arthur'; and one general map highlighting locations in London used in a variety of different films, including Harry Potter, various Bond films, Notting Hill, Bridget Jones's Diary and many others. Not all the films covered were UK productions, but there is much more likelihood of a UK film featuring UK locations than an overseas film.

For the 2004 campaign, survey-based evaluation work provides evidence of the extent to which tourism organisations can exploit people's interest in visiting places seen in films to generate additional tourism spending. A questionnaire sent to a random sample of those requesting a copy of one of the movie maps revealed that a quarter of those who had taken a short break in 2004 said that the map had definitely turned a possible visit into a certainty, and almost as many said this was probably the case. As many as 87% said the movie map had encouraged them to visit different parts of England that they had not previously considered. Analysis of those whose decision to take a break in England was

<sup>27</sup> Quoted, for example, in 'Film Tourism', [www.visitbritain.com/corporate/film\\_tourism.htm](http://www.visitbritain.com/corporate/film_tourism.htm) (not currently accessible).

<sup>28</sup> UK 2000 Time Use Survey.

<sup>29</sup> In 2004, the aggregate 'film on TV' audience in the UK was 2.6 billion (around 15 times the size of cinema admissions). Source: UK Film Council analysis of DGA metrics.

<sup>30</sup> Visits to Visitor Attractions, UK Tourism Statistics, quoted in 'Film Tourism – the Global Picture', Mintel 2003.

<sup>31</sup> Mintel, 2003.

affected, together with those who extended a break as a result of a movie map, additional tourism spending of £2.3 million was estimated, 92 times the cost of the campaign.

Film locations that attract visitors can be much larger than specific buildings or streets. A survey-based study<sup>32</sup> in the Stirling area of Scotland during the 1996 tourist season after the release of 'Braveheart' and 'Rob Roy' the previous year showed that 15% of visitors from outside Scotland who had seen 'Braveheart' said it had had an influence on their decision to visit the country, with a much larger proportion (39%) saying it had had some influence on their decision to visit the Stirling area. Just over 60% of those influenced claimed that it was the scenery featured in the film that affected their decision to visit Scotland, while for a further 38% it was the history of Scotland that had an effect. Similarly, 37% said it was the historical interest that affected their decision specifically to visit the Stirling area, with somewhat fewer (31%) quoting the scenery in this respect.

Perhaps the most dramatic impact of film on tourism, though, is the example of New Zealand, through its use as the location for the filming of the 'Lord of the Rings' trilogy. This involved 150 sites across New Zealand, particularly highlighting the spectacular and varied scenery. The number of foreign visitors rose sharply following the release of the first film in December 2001, with overall visitor spending 17% higher in 2002 than 2001, and UK visitor spending in New Zealand up 29%. Subsequent releases of the second and third films in the trilogy have kept foreign visitor spending broadly at these increased levels. Surveys by Tourism New Zealand in early 2003<sup>33</sup> showed 65% of potential overseas visitors were more likely to visit New Zealand as a result of the films or publicity about them, more or less equivalent to every potential visitor who was both aware of the film (86%) and knew they were made in New Zealand (76% of those aware of the film).

### **7.3 How much is film tourism worth in the UK?**

There is not much doubt that film tourism has an impact on the UK tourism industry. Numerous studies around the world point to the power of film in influencing visits, and the activities of tourism bodies themselves make it clear that they believe the potential is there. Quantifying the significance of this impact is more difficult than establishing its existence, however, and in practice identifying a range within which the likely scale of impact lies is probably the most that can be achieved.

At the broadest level, VisitBritain's survey result that one in five visitors to Britain come as a result of seeing the country in a film or on television provides an upper limit for this range. Some 27.7 million overseas visitors to the UK spent £13.0 billion here last year<sup>34</sup>, supporting an estimated 160,000 jobs<sup>35</sup>. If one in five of these visits was a result of UK films, then (assuming an average spend in line with all visitors) the impact of UK film on UK tourism could be as much as £2.6 billion of visitor spending. If half of this effect should be more appropriately attributed to television, the impact of film might be to generate £1.3 billion of visitor spending a year.

The evaluation of VisitBritain's 2004 movie map campaign provides a much more limited estimate of £2.3 million of identifiable extra spending. However, this is only looking at a very small sub-component of the overall effect. In particular, it was only looking at the additional impact of the movie maps themselves, rather than the impact of the original

<sup>32</sup> 'Impact of Films Study' for Stirling Council and Forth Valley Enterprise, System Three, 1997.

<sup>33</sup> Quoted in 'Film Tourism – the Global Picture', Mintel 2003.

<sup>34</sup> ONS Overseas travel and tourism statistics.

<sup>35</sup> OEF estimate based on share of overall tourism demand in the UK (derived from WTTC 2005 Travel & Tourism Economic Research).

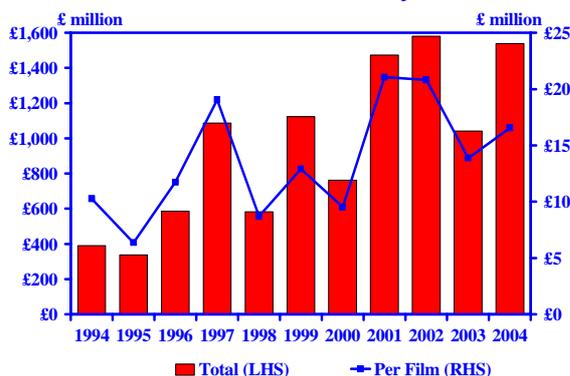
films. So, anyone already planning a visit but using the movie map to confirm details, or making a visit as a result of a film but not involving a movie map at all, will be excluded from the estimate of incremental spend altogether. And the emphasis was on UK tourists taking breaks within the UK, rather than overseas visitors whose knowledge, understanding or appreciation of the UK might be affected by film.

Another approach to quantification is to generalise from studies of specific films. In 1996, the year after 'Braveheart' and 'Rob Roy' were released, a survey showed that cinema had been a factor in the choice of Scotland as a holiday destination for a fifth of American visitors (echoing the more general finding of VisitBritain about the proportion of overseas visitors to the UK influenced by television or cinema). With around 400,000 US visitors to Scotland a year, spending around £225 million, this corresponds to around £45 million of visitor spending. Since the US represents around a third of the global gross box office of UK films, and also around a third of the market for overseas visitors to Scotland, we might expect the impact on overall foreign visitor numbers and spending in Scotland to be around three times the impact via the US alone, corresponding to £135 million.

'Braveheart' and 'Rob Roy' were US-financed, although based in Scotland, and it is clearly difficult to deduce anything about the overall impact of UK films from the experience of these two. But it is at least reasonable to assume that the impact of a film on tourism will depend on how many people see it, so one way to extrapolate the effect of these films is in proportion to their box office take, since a film seen by large numbers of people obviously has the potential to influence more travel plans than a minority film. For convenience, we have used the UK gross box office as a proxy for the relative size of the audience seeing a film. 'Braveheart' and 'Rob Roy' generated £17.0 million at the UK box office in 1995, so if a similar 'return' in terms of foreign visitor spending in the UK applied to the average UK film, we might expect the impact on visitor spending to be around eight times the UK box office take. Chart 7-1 shows that the impact of UK film on UK tourism receipts may have increased from £400 million to £1.6 billion a year over the last decade, which is a similar order of magnitude to the estimate of £1.3 billion based on VisitBritain's survey.

Chart 7-1:

The value of UK film to the tourism industry



Source: OEF estimates

In calculating the overall impact of this additional visitor spending on GDP in UK, the leakage of some of this into imports needs to be taken into account. While all of the visitor spending may occur in UK, many of the goods purchased will have been imported. And even some of the tourism services in UK (eg accommodation) will use imported inputs (eg linen, food). These imports need to be netted off in order to calculate the

additional value added in UK as a result of the additional spending. We do this using our detailed model of the tourism sector in the UK economy.

Our model suggests that visitor spending of nearly £1.6 billion in 2004 produces a contribution of around £800 million a year to UK GDP and £170 million to the Exchequer.

#### 7.4 Is UK film tourism at risk?

The fact that an estimated £1.6 billion of visitor spending in the UK last year was a result of the impact of UK films does not necessarily mean that spending would fall by this amount if UK films were no longer made. In the first place, films might continue to be made about the UK, even if they were no longer made in the UK. In the second place, there would still be an existing stock of films about the UK even if the new ones ceased to be made.

However, there is an increased risk that films that would have been set in the UK if made here will be transplanted elsewhere if made somewhere else. For example, there was speculation that the characters in the Harry Potter films were to be depicted as Americans with the School named as Hogwarts High<sup>36</sup>.

And the impact of a historical legacy of films about the UK would gradually decline over time if it were not reinforced by new UK films. After one year, the impact on visitor numbers might be quite small, but after four or five years we would expect the impact to build up as other potential destinations were increasingly uppermost in people's minds.

In the medium term, therefore, we regard most of the impact of UK film on UK tourism as vulnerable if UK films ceased to be made.

#### 7.5 Summary

Around one in five foreign visitors to the UK come as a result of seeing the country depicted in film and television. In 2004, as a result of spending by foreign visitors in the UK, around 20,000 jobs were supported in the UK, contributing an additional £170 million to the Exchequer and £800 million to GDP in the UK.

---

<sup>36</sup> The Quest for 'Harry Potter,' the Movie - Two Dozen Directors Vie To Bring the Books' Magic, And Gold, to the Silver Screen, The Wall Street Journal (1 November 1999).

## 8 Culture

Film serves many cultural purposes. It has a key role in enriching the creative and imaginative life of those who watch it. It also serves to engage people in issues that affect their lives and the lives of those around them. Film also plays an important role in social communication and relationships.

Many of the cultural benefits to film will occur regardless of the 'nationality' of a production, but will simply depend upon its overall 'popularity' or 'quality'. But some of the cultural aspects may be related to whether a film is indigenous or not. Successful UK films play an important role in promoting national identity and self-confidence, and people may take extra pride when a UK film is a success.

This chapter explores some of these issues in greater depth and seeks to provide a guide to the possible cultural value that the UK film industry provides.

### Key Points

- The value that people attach to film culture should in part be reflected in box office takings, although they will also benefit from some 'consumer surplus' over-and-above what they pay for cinema admission.
- But indigenous film has a number of other facets, such as boosting national self-confidence and awareness, that may mean the total social valuation exceeds both the consumer surplus and the box office takings. Culture also benefits from the educational component of UK films.
- We estimate that the presence of UK films may boost the total box office gross by £38 million a year. This provides one estimate of the private valuation people attach to UK film.
- Studies that attempt to assess the wider benefits of audio-visual media have often found that the total benefits exceed revenues significantly. On this basis, the total benefits of UK film could easily exceed £40 million a year.
- It should also be acknowledged that the government is now explicitly recognising the value of culture, through the proposed cultural test for identifying whether a film is British.

### 8.1 Theory

At one level, the cultural aspect of film is a fundamental part of the overall satisfaction a film-goer gets out of seeing a movie, and the *raison d'être* of the film industry. Consumers experience private cultural benefits from seeing a film, which should be expected to be reflected through their buying power, and ultimately the box office revenue of any movie would be a guide to its perceived cultural value.

However, the market for film is distinct from a standard text-book economic market in a number of ways. In a standard market, products are thought of as homogenous - ie of the same quality. But films are by their nature heterogeneous products that are different every time. One implication of this is that the audience cannot form a true view on the satisfaction ('utility' in text-book terms) they can extract from a film until after they have seen it. This imperfect information means that the market cannot be relied upon to deliver the economically efficient level of film culture at any point in time. But if the quality

of films in general is reasonably broad, so undervalued films balance overvalued ones, then the overall economic inefficiency should not be systematic. In these instances, the total box office takings of films will be a guide to the private value placed on these movies by the public. But alongside the box office revenues, some consumers will value the films they see by more than the price they pay – they earn ‘consumer surplus’ in economic terminology. So, even for these films, we would expect the box office takings to be lower than the total private value placed on films by the public.

And there may be additional private cultural value placed on indigenous UK film. Consumers may attach additional cultural benefits to seeing a ‘good’ UK film, because it might boost positive feelings of national identity and have specific cultural relevance to their lives. These effects should be reflected in higher box office revenues for a UK film, which will provide one guide to the extra private valuation placed on UK film. But there is still a risk, partly because the film market is dominated by US majors and US films, that the market will still under-provide for UK films.

Moreover, as well as the additional private cultural benefits from UK film, there may be additional public or ‘external’ benefits because successful UK movies can become imbedded in the national consciousness as part of a shared cultural heritage<sup>37</sup>. These sorts of benefits may even accrue to people who do not see a particular film. For example, the ‘Italian Job’ is now celebrated as an important icon in British national identity that transcends the original box office audience that paid to see it in 1969. On the other hand, unsuccessful UK films arguably do not damage national self-esteem in a similar fashion but rather simply fade from memory.

There are also public benefits from the educational component of films. For example, since 1985 Film Education has developed a range of publications and services to supply educational material on film. This in turn helps young people develop a broader cultural appreciation for art and society. In turn, this may have further positive spin-offs through the encouragement of good citizenship.

The ‘externalities’ that arise from the characteristics of indigenous film imply that the final social valuation of UK film may well exceed both its private consumer surplus and box office valuation, again resulting in a possible under provision of UK film. The government is now directly recognising this value, through the proposed cultural test for identifying whether a film is British, as set out in the DCMS consultation document<sup>38</sup>.

## 8.2 Assessing the cultural value of UK film

Establishing an estimate for the cultural valuation placed upon UK film is important in determining its total contribution to society. Here we consider two approaches. The first considers whether there is any indication that a UK-made film earns more at the box office simply because it has a UK origination. But, as we have discussed, this approach may tend to under-estimate the overall cultural value placed on UK film as there may be additional consumer surplus and externalities related to culture not reflected in market prices. The second approach looks at survey-based approaches that attempt to gauge cultural value more broadly.

---

<sup>37</sup> As the Treasury puts it in ‘Reform of film tax incentives : Promoting the sustainable production of culturally British films’ (July 2005) : “Films can help reflect, explore and challenge our diverse history, cultural beliefs and shared values. In doing so, the best British films not only help us to reach a better shared understanding of Britain and its place in the world, but are also instrumental in spreading awareness and appreciation of British culture around the world...” (p5).

<sup>38</sup> ‘Cultural test for British Films: Consultation’, Department for Culture, Media and Sport (29 July 2005)).

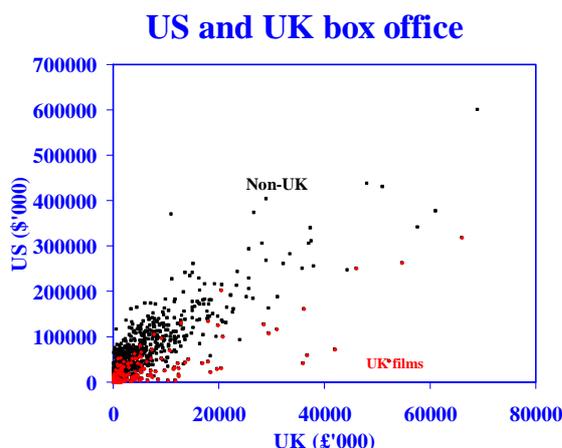
(a) **Estimating the UK box-office effect**

One approach to assessing the value people place on UK film is to look at box office data to see if there is evidence that UK films attract higher revenues simply for being indigenous.

The UK Film Council maintains detailed databases that allow for a comparison of the effects of country of origin on box office revenues (see Box 8-1 for further details). One issue in any such analysis is that films differ in popular appeal, so it is difficult to be sure when looking for the effects on box office revenue of indigenous films whether this also captures an effect from differing appeal. The way we control for popular appeal of a film, in order to get at the true value placed on indigenous film, is to use another country's box office return as a 'control' factor. If, for example, a film yields a higher box office in, say, the United States then this may be taken as some evidence that that particular film might also be expected to perform well in the UK.

A scatter plot of UK against US box office film revenues (Chart 8-1) confirms that we would expect to find an extra premium for UK films: UK films have a marked tendency to earn proportionately more in the UK relative to the US. We have also looked for the effect of indigenous film using more powerful statistical techniques, including the 'adjusted' US box office to control for popularity effects (The box at the end of this chapter explains this in more detail.) Again, we find evidence that indigenous films earn more for given appeal.

**Chart 8-1:**

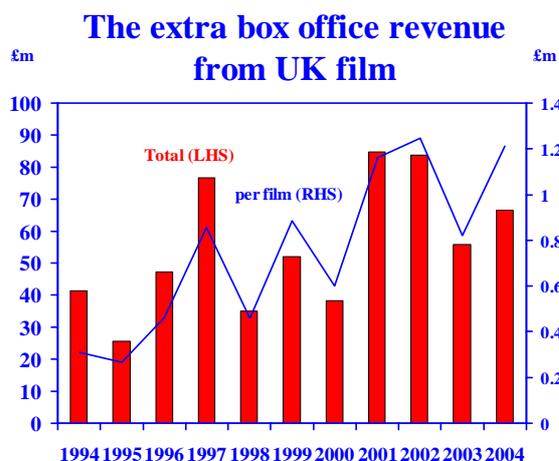


Our estimates imply that a film of given popularity shown in the UK can expect its box office revenue to be on average 31% higher if it is indigenous. Most of this extra premium can be expected to reflect the 'cultural' value film-goers place on seeing a UK production.

Between 2000-2004, the average box office revenue of UK films was £160 million per year. So, an estimate of the additional private cultural value of UK film for these years might be £38 million per year.

Chart 8-2 illustrates how this measure of the additional private cultural value of UK film varies from year to year. It also plots the additional private cultural value per film, which has averaged around £500,000 per movie since 2000.

Chart 8-2:



There are other implications from finding that UK films tend to earn higher box office revenues for given popular appeal. For example, the additional £38 million earned by UK films on account of being indigenous means that VAT receipts from cinema ticket sales might be around £6.6 million higher than otherwise. Further, the extra revenue from UK films implies that employment in the film distribution and exhibition industries may be around 1,400 higher than if there were no indigenous films. The additional revenues from income tax and corporation tax take the overall tax gain from UK films to around £15 million a year.

(b) **Survey-based Approaches**

Looking at box office revenue data therefore suggests that films with a UK content are valued significantly by the film-going public. But, as discussed above, the full cultural value that people place on UK film may not be reflected in box office revenues. It is conceivable that the total cultural value placed on film could exceed that reflected in box office revenues owing to significant consumer surplus and externalities from such things as national self-esteem and identity.

One common approach to establishing the total value of cultural activities is to conduct surveys that ask people directly. A traditional survey was commissioned by the UK Film Council from Omnimas on 'Public Attitude to Film on TV'. Over three-quarters of the sample indicated that they consider films on television an enjoyable activity, with younger groups more likely to agree. Over one-third of the sample thought there should be more films on television, with only 5% believing there were too many. So, the survey found people placed a high valuation on film relative to other forms of visual entertainment. But, further to this, the survey found clear support for UK film. About 81% of the survey agreed that television companies should support the British film industry by showing more UK-made films, and 77% agreed that UK films are an important part of British heritage. This is clear evidence that people place an extra value on the cultural content of UK film.

Another, more sophisticated, approach to establishing value involves conducting 'contingent valuation' surveys. These surveys vary in form but, in essence, ask people a structured set of questions that seek to draw out of them the cash value they attach to a particular subject. There has not been a large survey on the value of the UK film industry of this sort. But there have been a number of other studies that may help inform an estimate of the overall cultural value of the industry:

- The BBC is a similar institution to the UK film industry in that it provides a key outlet for UK-originated cultural content. The Corporation undertook a contingent valuation study using a variety of survey types in its submission to the Independent Panel on its charter review in October 2004. The study revealed an overwhelming support for the BBC across the UK, with 81% of the population agreeing that the BBC is worth the licence fee cost of £121 per year. On average, people valued the BBC at around twice the rate of the licence fee, that is £20 a month or £240 a year. Given the concentration of UK-specific content on the BBC compared to that available on other broadcasters, this provides evidence of the high valuation placed on UK-originated audiovisual content. In fact, the highest valuation on the BBC was placed by those with multi-channel television - suggesting that UK cultural content was particularly highly valued where there were alternatives.
- Another contingent valuation study<sup>39</sup> looked at the benefits that the Australian community derived from having the mandatory transmission of Australian-originated programmes on their television stations. The Australian system requires that 55% of airtime on television between 6.00am and midnight be locally produced. This therefore provides another test of the cultural valuation people place on domestic audiovisual media. The study found widespread positive views about the likely cultural benefits of Australian film and television. By contrast, the view that Australian films and television were of higher quality was less widely held. Hence, there was some evidence of discrimination between the value people placed on national-originated culture in principle and that that was actually delivered. Some 65% of respondents approved of the level of expenditure committed to supply Australian programming, with only 15% wanting a decrease. The mean and median values placed on Australian television output broadly equated to its current costs.
- Other studies of domestic television have found equally supportive results. A contingent valuation analysis on Irish Public Service Broadcasting found that the annual willingness to pay for the Irish public service broadcaster significantly exceeded the current fee. Another study, undertaken to value the Canadian Broadcasting Corporation<sup>40</sup>, found that local Canadian content had a relatively high value placed upon it relative to the current level of hours it received.

Contingent valuation studies have generally therefore found evidence that people value the cultural content of indigenous audiovisual content highly, and often significantly more than the price they pay for it.

---

<sup>39</sup> Willingness to Pay for Domestic Television Programming, Franco Papandrea.

<sup>40</sup> Valuing the Canadian Broadcasting Corporation, Adam Finn, Stuart McFadyen, Colin Hoskins.

### Box 8-1: Further Details on the Database and Estimation

#### The Film Council Database

The database we use to estimate the additional private cultural value of UK film is drawn from Film Council records that supply information on the country of origin of films released in the UK alongside their box office takings. It also allows us to look at each film's US box office takings, and additionally the box office takings for Germany and Spain, alongside other details on release dates. We can also match into the database information on the genre, the UK certificate, and the level of UK advertising spending. The basic database covers the years 1996 to 2004.

#### Estimation Details

Our basic approach to exploring potential indigenous film effects is to estimate an equation for the UK of the form:

$$\ln(BO_{ji}) = \alpha + \beta * FilmOrigin + \delta * \ln(BO_{jus})$$

Where  $BO_{ji}$  is the box office of film  $j$  in country  $i$ ,  $BO_{jus}$  is the box office of film  $j$  in the United States, and  $FilmOrigin$  is a dummy variable taking the value 1 if the film's country of origin is the same as  $i$ .

In this formulation the US box office is used as an indicator of the popular appeal of a given film. A test for whether UK films earn a premium over films from other countries is then a test on whether  $\beta > 0$ .

But one possible complication with this approach is that, if there is a similar indigenous film effect in the US, then when a film is from the UK we would expect its box office to be lower in the US for a given popularity. Including a US box office figure that does not take this into account might bias the coefficient  $\beta$  upwards, as the lower US box office revenues would be interpreted as a sign of lower popularity rather than being a US box office effect. We therefore expand the model to address this issue, by modifying the equation for the UK and adding another for the US:

$$\ln(BO_{jUK}) = \alpha + \beta * FilmUK + \delta * \ln(FilmUK * \exp(\gamma) * BO_{jus} + (1 - FilmUK) * BO_{jus})$$

$$\ln(BO_{jus}) = \zeta + \gamma * FilmUS + \mu * \ln(FilmUK * \exp(\beta) * BO_{jUK} + (1 - FilmUK) * BO_{jUK})$$

When a film is from the UK (so that  $FilmUK=1$ ) its US box office revenue is likely to be lower than if it was US-made, so we increase its US box office to what it would be if the film were from the US. We then use this higher US box office in our UK equation. On the other hand, the UK box office is likely to be higher for a UK film, so we reduce it in the US equation.

**Box 8-1 (cont.)**

For example, in our estimation we find that a UK film earns around 31% higher box office revenues in the UK, while a US film appears to earn over six times the box office revenue of a non-indigenous film in the US market. So, we only take around 76% (ie 100/131) of the UK box office revenue of a UK film as our measure of popular appeal in the US equation, while we boost the US box office revenue of a UK film by around six times in order to make the US box office revenue a sufficient indicator of popular appeal in the UK equation.

In estimation we add equations for Germany and Spain similar to the UK equation. We also test to see if data on Certificate, Genre and Advertising Revenue is important in the UK equation. In our final equation, in which we have removed insignificant variables, we find categories of film genre and certificate to be insignificant in explaining the box office, although advertising spend does seem to be important in boosting the UK box office<sup>41</sup>:

$$\text{Log(UK box office)} = 1.6 + 0.3*(\text{UK film}) + 0.2*\text{log(adjusted US box office)} + 0.7*\text{log(advertising spend)}$$

<b>UK Box Office Revenues</b>				
Dependent Variable: $\log(\text{BO}_{j\text{UK}})$				
	<b>Coefficient</b>	<b>Std. Error</b>	<b>t-Statistic</b>	<b>Prob.</b>
$\alpha$	1.6	0.4	3.9	0.00
$\beta$	0.3	0.1	2.1	0.03
$\delta$	0.2	0.0	6.1	0.00
$\gamma$	2.2	0.1	18.1	0.00
$\lambda$	0.7	0.0	13.9	0.00

where:

$$\ln(\text{BO}_{j\text{UK}}) = \alpha + \beta * \text{FilmUK} + \delta * \ln(\text{FilmUK} * \exp(\gamma) * \text{BO}_{j\text{US}} + (1 - \text{FilmUK}) * \text{BO}_{j\text{US}}) + \lambda * \ln(\text{Advertising Expenditure})$$

Observations: 481

R-squared	0.78	Mean dependent var	13.53
Adjusted Rsquared	0.78	S.D. dependent var	2.27
S.E. of regression	1.07	Sum squared resid	546.69
Durbin-Watson stat	1.94		

<sup>41</sup> The significance of advertising spend has been found in a previous study: 'Advertising Effectiveness in UK Film Distribution', Tony Robertson (September 2003), Report for the UK Film Council.

### 8.3 Summary

Our estimates suggest that, on average, the presence of UK films may boost box office revenues by £38 million a year over-and-above the level we would expect if all films shown were foreign made. This is equivalent to around 4.6% of the total UK gross box office in 2004. It provides an initial estimate of the additional private value of UK film culture.

But, as discussed above, this estimate is likely to exclude some of the consumer surplus that film-goers receive from seeing UK films. And there are further public or external benefits that may arise from successful indigenous films (eg through improved understanding of British life, education etc). Transferring the results of other contingent valuation studies to the valuation placed on the UK film industry is not straightforward. But generally there appears evidence that the cultural value attached to UK film will significantly exceed that reflected in box office revenues. In these circumstances, the overall cultural value of UK film could easily exceed £40 million a year.

## 9 Merchandising

It is not just the box office that generates revenues for the film industry, particularly for major films. There is a whole range of related products that can be sold off the back of interest in a film, which may be a critical part of making producing the film financially viable and enhance the contribution that the UK film industry makes to the economy.

This chapter looks at the most important types of different products whose sales are related to films, and estimates the 'additional' economic impact of the 'merchandise' sales that are generated by UK films.

'Additional' means merchandise sales that are not already counted in our estimates of the direct contribution of the UK film industry in Chapter 4. For example, revenues from video/DVDs sales, and to a lesser extent video/DVDs rentals, are significant to many UK film companies and viewed as an important part of the value chain in the industry. These revenues will already be covered in our direct estimates, but the revenues which occur to the retailers will not and this is the focus of this chapter.

### Key Points

- Turnover from merchandise associated with UK films but outside the film industry, predominately the retail sector, was over £490 million in 2004.
- DVD sales were worth £200 million, DVD rentals were £112 million, soundtrack CDs were £10 million and sales of related computer/video games were £53 million.
- These sales supported about 11,000 jobs in 2004, contributed about £264 million to UK GDP and £60 million to the Exchequer.

### 9.1 Videos/DVDs

The film industry earns more through sales and rentals of videos and DVDs than it does through cinema box office receipts, so it is important to include these channels when looking at the economic significance of the industry. However, with video/DVDs sales we have to be careful to include only the additional revenues and value added which is not already covered in the direct contribution of the UK film industry.

The average person buys more videos or DVDs than cinema tickets. About half of 12-74 year olds went to the cinema in 2004, making an average of 5.8 visits<sup>42</sup>. But almost two-thirds of people bought an average of 7.4 videos or DVDs. Since films account for about 70% (by volume) of the video/DVD market, this implies that on average each person aged 12-74 bought 3.18 film videos or DVDs in 2004.

With the overall retail market for videos and DVDs worth £2.7 billion pounds in 2004 (90% of it DVDs), sales of film videos and DVDs are likely to have been at least £1.85 billion (more if the average price of a film exceeded the average price of other types of videos/DVDs). Estimating the contribution of UK films within the overall market for videos and DVDs is more difficult. However, a significant proportion of the top twenty best-selling films in 2004 were UK films (Table 9-1).

<sup>42</sup> Taylor Nelson Sofres (TNS) Audio Visual Track consumer panel data.

The prevalence of UK films in this list, including some of the highest-ranking films, suggests that the share of the retail video/DVD market accounted for by UK films in 2004 is likely to be at least as high as the share of the cinema box office in 2004 that was accounted for by UK films – 23.4%. We have therefore based our estimates of the value of sales of videos and DVDs of UK films on this 23.4% share. The implication is that these were worth £430 million in 2004.

A proportion of this revenue is already captured in our estimates of the direct contribution of the UK film industry. We estimate that 55% of DVD/video sales<sup>43</sup> are counted already in the direct impact, so this means that additional merchandise sales in the retail sector amounted to around £200 million in 2004.

Videos/DVDs of films also generate significant economic activity through the rental market, which was worth £641 million in 2004. We estimate that one-quarter of the DVD/video rental revenues are already counted in the direct impact. This is a somewhat lower figure than the 55% above. A rental outlet, compared to retail, is likely to capture proportionately more of the total value added created in getting the product from the film company to the final consumer.

This is because a rental business is often thought of as a low turnover at high margin business whereas retail is a high turnover (derived from high footfall) but low margin business<sup>44</sup>. A rental outlet is also likely to account for a proportionately greater part of the total cost involved in getting the product to market. Additional costs include information technology and administration systems to keep track of videos rented and a significant amount of shop space to keep a wide selection of videos available.

Deducting one-quarter of revenues, and using the same 23.4% UK share assumption as used in the retail calculation, means that additional merchandise rental sales from UK films amounted to around £112 million in 2004.

Taken together, the combination of both retail and rental of videos and DVDs of UK films generated sales of £312 million in 2004. In terms of value added, this implies a contribution to UK GDP of around £170 million, and the activity associated with this is estimated to have employed around 7,000 people.

---

<sup>43</sup> Using the cost structure of a typical CD as a proxy for videos/DVDs. The Monopolies and Mergers Commission report on 'The supply of recorded music' estimates that 15% of the retail price is VAT, 30% is retailer's gross margin and 55% is passed on to the record company.

<sup>44</sup> See 'Brand Health Check: Blockbuster', Marketing 8 Jun 2005.

**Table 9-1: 2004 top 20 films (video/DVD retail)**

1	Lord of the Rings: Return of the King	Non-UK
2	Harry Potter & the Prisoner of Azkaban	UK
3	Love Actually	UK
4	Calendar Girls	UK
5	The Day After Tomorrow	Non-UK
6	Pirates of the Caribbean: Curse of the Black Pearl	Non-UK
7	I, Robot	Non-UK
8	Star Wars Trilogy	Non-UK
9	Master & Commander: Far Side of the World	Non-UK
10	Kill Bill – Vol 1	Non-UK
11	Matrix Revolutions	Non-UK
12	Troy	UK (Co-production)
13	The Last Samurai	Non-UK
14	Spider-Man 2	Non-UK
15	League of Extraordinary Gentlemen	Non-UK
16	Garfield the Movie	Non-UK
17	Donnie Darko	Non-UK
18	Van Helsing	Non-UK
19	The Italian Job	Non-UK
20	Kill Bill – Vol 2	Non-UK

Source: BVA/Official UK Charts

## 9.2 Soundtracks

Sales of original-film soundtracks make up a relatively small part of the market for recorded music. But since the overall market is worth £2 billion a year, this still amounts to an appreciable level of spending.

According to the bpi, soundtracks made up 2.2% of all album sales in 2004, and (assuming the average price is similar for film soundtracks as for other albums) this amounts to £43 million worth of sales. A share for the UK film industry of 23.4% of this would imply sales of UK film soundtracks worth £10 million.

## 9.3 Books

There are a number of ways in which book sales can be influenced by films. In many cases, of course, films retell the story of a book, providing an immediate link between the two media, with obvious examples among recent major films including the Lord of the Rings trilogy, based on the books by JRR Tolkien, and the Harry Potter series, based on the novels of JK Rowling. In these sorts of cases, the films have almost certainly inspired additional sales of the books. But they were already very successful books in their own right and, indeed, the success of the books contributed to the success of the films, not just vice versa. In other cases, the impact of a film release can more obviously be seen as responsible for sales of a book - for example, the Merchant-Ivory films of the EM Forster novels 'A Passage to India', 'A Room with a View' and 'Howard's End'.

More obviously within the scope of merchandising, though, are books spun off from the film itself, rather than the original novel. These would include books about the making of

the film, using cartoon characters from the film, telling additional stories about the characters in the film, etc.

#### **9.4 Computer/video games**

For 'blockbuster' films, in particular, there is a significant overlap between the film market and the games market. Films are of wider significance to the games industry in developing techniques that are originally used in film but later transferred to games, and in providing a skilled workforce that can be a source for games companies to enhance their skills base (see Chapter 5). But they are also important in terms of direct sales of games, with 16 of the top 100 selling games in 2004 being based on film franchises.<sup>45</sup>

As in the case of books, the direction of influence is not entirely in one direction. The Tomb Raider franchise, for example, started out as a video game rather than as a film. The other large film-related franchises in the games market, though - Harry Potter and James Bond - both moved from films to games rather than vice versa – and both are derived from British-made films.

This is an important market – overall sales of UK leisure software in 2004 reached £1.22 billion, and the UK video games industry employed, 22,190 people<sup>46</sup>. Data for 2004 suggest films account for 17% of this market<sup>47</sup>, of which the UK film share is 25%. This would imply sales of £53 million in the UK for leisure software inspired by UK films.

#### **9.5 Toys/models**

Some of the more popular children's films generate large sums from sales of toys and models linked to the film. Although the bulk of these items are manufactured abroad, particularly in China, this does not apply to other elements of the value chain, such as design, distribution, etc. Since the actual manufacturing costs are a relatively small part of the final price – perhaps 20% - the majority of the value added, employment, tax revenues and so derived from the merchandising of toys and models will benefit the UK economy.

#### **9.6 Clothing**

Commentators have pointed in the past to the links between films and fashion. The popularity of a star's 'look' in a film can lead to increased popularity for clothes that help create a similar look. And UK films are more likely to help promote a British 'look'. Chapter 10 comments on the way in which British film can help stimulate demand for British goods more generally.

Merchandising, though, really refers to a more specific link between a film and clothing than simply a particular look or style. Rather, it covers the sale of particular items of clothing directly based on those worn in the film – a Superman cape, for example.

---

<sup>45</sup> 'Chart Track' Annual Report of top 100 leisure software (all formats).

<sup>46</sup> The Entertainment & Leisure Software Publishers Association (ELSPA).

<sup>47</sup> 'Chart Track' Annual Report of top 100 leisure software (all formats).

## 9.7 The overall value of merchandising

Not all aspects of merchandising are easily quantifiable, and in some cases films will stimulate sales of products that cannot reliably be pinpointed as being all due to the film. And, as discussed above, there are examples where the success of other products (eg books, video games) stimulates the market for a film, rather than vice versa.

But it is also possible to look at the value of sales generated through merchandising from the other end of the process, so to speak. Since major film companies have merchandising divisions whose aim is to generate revenues through licensing others to sell products related to their films, it is also possible to get an impression of the value of merchandising through its importance to the film producer.

Merchandising of Harry Potter-related items, for example, was estimated in 2001 to be worth around £1.4 billion in the following year<sup>48</sup>. The importance was also acknowledged more recently by the Chancellor of the Exchequer on a visit to China when he noted that what Chinese school children wanted most from Britain was more Harry Potter merchandise. He went on to say that Harry Potter is “..one of our greatest exports, one of our greatest success stories, and I think JK Rowling has done more for literacy around the world than any single human being”<sup>49</sup>.

More generally, the head of consumer products at Warner Brothers suggested to us that a successful ‘merchandisable’ film might generate sales in the UK of around \$100 million in a year, through perhaps 35 different licensees. Only a limited number of films are suitable for this sort of treatment, with perhaps six to eight such releases this year. But if two of these are UK films, they might generate sales in the UK of \$200 million, or £115 million. Of course, merchandising is not limited to the year in which a film is released - sales can continue for a number of years afterwards. But it can become increasingly a challenge to maintain interest if new films in the same series are not released, and we have therefore based our calculations on the conservative assumption that the value of merchandising is adequately illustrated by the first-year effect.

The merchandise revenue estimates in the paragraph above do not include videos, soundtracks or computer games, which therefore need to be added to estimate the overall economic impact of merchandising based around British films.

Overall, we estimate (Table 9-2) that through these forms of merchandising UK films generated sales of £490 million in 2004, and value added of £264 million. The employment associated with this contribution to GDP amounted to around 11,000 jobs, and £60 million of extra tax revenues were generated through additional VAT, income tax, national insurance contributions and corporation tax.

<sup>48</sup> BBC Online Business News, 12 November 2001.

<sup>49</sup> Harry's magic strikes home, Scotsman (15 July 2005).

**Table 9-2: The value of UK film merchandising in 2004**

	Sales (£ million)	GVA (£ million)	Employment (‘000s)	Taxes (£ million)
Video/DVD sales	200	108	5	25
Video/DVD rental	112	61	2	14
Soundtracks	10	5	0.2	1
Computer/video games	53	28	1	6
Other merchandise	115	62	2.5	14
<b>Total</b>	<b>490</b>	<b>264</b>	<b>10.7</b>	<b>60</b>

*Source: OEF estimates*

## 9.8 Summary

Taking into account that some merchandise sales will already be counted in our estimates of the direct impact, we estimate that the UK film industry generated additional merchandise sales worth around £264 million to UK GDP in 2004.

Without a UK film industry, consumers may simply switch some spending to other merchandise associated with non-UK films. However, as shown in Chapter 8 on culture, indigenous British films mean that the UK box office is higher than it would otherwise be if the UK film industry did not exist. If the effect of UK films on merchandise sales is similar to its effect on box office revenues, then the net impact would be worth £63 million to UK GDP in 2004.

## 10 Promotion and Trade

### 10.1 Introduction

The film industry also contributes to the UK economy through its impact on UK overseas trade. We can distinguish here between two different channels. The first, direct impact occurs because the UK film industry earns export royalties and fees for the production of films. But there is also a second, 'indirect' effect, because the UK film industry helps to promote the 'UK brand', which in turn helps other UK exporters to sell their products. The rest of this chapter explores both of these points.

#### Key Points

- The UK film industry is a significant contributor to the UK net trade position, with export earnings averaging £653 million since 1997.
- The film industries' share of total export earnings is higher than the industries' share in UK GDP - so in this sense it 'punches above its weight' in export markets.
- Moreover, UK films help to boost the demand for UK products by promoting the 'UK-brand'. The growing market for product placement in UK films also provides an outlet for exporters to advertise their specific products to a wide audience. These promotional benefits are estimated to be worth around £100 million to UK GDP.

### 10.2 Direct UK trade in film

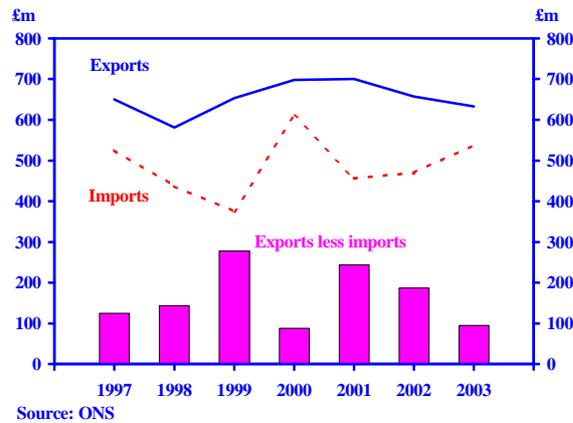
The film industry is a significant contributor to UK export earnings. In 2003 (the most recent data) total exports of the film industry were £633 million<sup>50</sup> (Chart 10-1). UK film export earnings are comparable to those from software consultancy and accountancy. And, importantly from an economic point of view, the value of film imports in 2003 was only £538 million - so UK film made a healthy net contribution of £95 million to the UK trade position. The average net trade contribution since 1997 is even higher than the 2003 figure, at £166 million.

The largest contribution to UK film export earnings comes from royalties, which were around £400 million in 2003. Production revenues are also important, however, with exports of over £200 million in 2003 (Chart 10-2). Looking at the geographical split of film trade, the UK has a large net trade surplus in film with Europe and with Asia. The only area where film has a significant deficit is with the USA (Chart 10-3).

<sup>50</sup> As in the measurement of all of international trade, there are important issues with regard to transfer pricing in exports and imports of film. Given the role of US majors, it is possible that the UK export figure may be under-recorded, as US companies seek to locate profits in the USA. But it is not possible to give an estimate of the size of any effect here.

Chart 10-1:

Exports and imports of film companies



Indeed, the UK film industry's share of total UK exports (0.2%) is more than double its share of total UK GDP. In this sense, the film industry makes a disproportionately large contribution to exports for a sector of its size.

Chart 10-2:

Exports by type of transaction

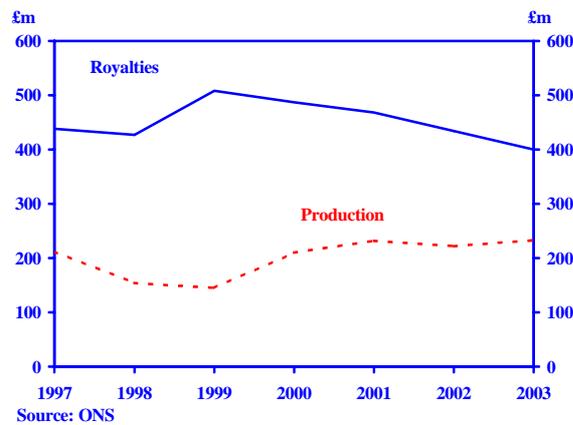
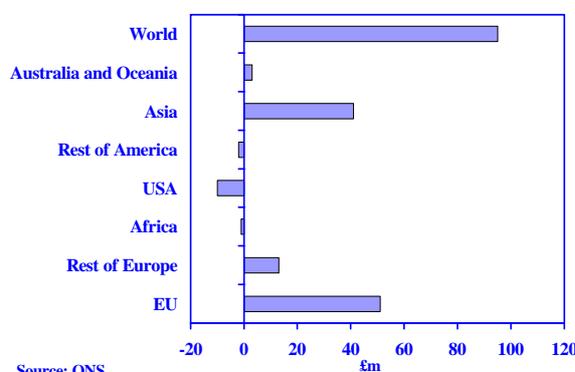


Chart 10-3:

Net international film transactions by geographical area, 2003



### 10.3 The indirect effects on trade from UK film

It is likely that the demand for some products will be influenced by an overall impression of the country from which they come, so that alongside the importance of product brands, 'country brands' will also be a factor in determining overall demand. For example, Italy has a particular reputation for sports cars and fashion, Japan has a reputation for consumer electronics, while France has a reputation for fine wine.

There is an extensive academic literature that finds 'product-country image' or 'country of origin' effects in trade. These studies suggest that the source of a particular product is important in determining its overall demand. For example, P. Verlagh and J. Steenkamp<sup>51</sup> find evidence for the existence of country of origin effects, through their influence on perceived product quality. Similarly G. Balabanis<sup>52</sup> also finds evidence of a country of origin effect through analysis of the preference patterns of UK consumers for domestic products and those originating from specific foreign countries.

Film plays an important role in establishing and reinforcing country brands, which may then have positive spillovers or 'externalities' on trade in general. In this regard, UK film has a particularly important role in shaping and reinforcing notions of UK identity that may then in turn help to underpin overseas sales of UK products. UK film may also be important in helping to replace out-moded notions of 'Britishness' with more modern ones, that in turn will help UK exporters face up to new challenges and expand new markets. For example, according to official UK representatives in China, *Bend it Like Beckham* has significantly changed and redefined the UK's image in the Far East with knock-on effects for trade and exports.

For the UK, one of the most important areas that benefits from these sorts of brand effects is tourism (covered in Chapter 7). But UK exports of manufactures and other services may also benefit from a UK-brand effect. Particular films can have an influence on UK trade in general - for example, one study noted how Gwyneth Paltrow in *Sliding Doors* had an impact on fashion in the 1990s<sup>53</sup>. And *Austin Powers* has also been given the credit for booming sales of Minis in North America<sup>54</sup>.

<sup>51</sup>1999, Journal Economic Psychology.

<sup>52</sup>2004, Journal of the Academy of Marketing Science.

<sup>53</sup>Sarah Gilligan (2001) in Engelmeier and Engelmeier, 'Fashion in Film'.

<sup>54</sup>Daily Mirror, January 2003.

A related role for UK film in helping overall UK trade comes from product-placement. This is a more product-specific effect, where the demand for specific UK products actually on display in UK films (usually at cost to the manufacturer) may be boosted. The importance of this channel is underlined by the amount companies are prepared to pay for it: in the US it is estimated<sup>55</sup> \$1.3 billion was spent by companies to place their products in film in 2000 - equivalent to 14% of the box office gross in that year. Of course, it could be the case that being on display in a non-UK film may still boost a UK product, but its overall impact is arguably likely to be larger when it is shown in a UK film.

Quantifying the impact of these promotional benefits is extremely difficult, given the multitude of both quantitative and qualitative factors that affect purchasing decisions. However, the value attached by companies to product placement provides a clue. Assuming that product placement in UK films similarly costs 14% of their box office and that companies will not pay any more for it than the profits of extra sales generated, we would expect such additional sales to have generated at least £25 million extra profits in 2004. With gross trading profits across UK companies averaging 25% of value added<sup>56</sup>, this implies additional value added of at least £100 million a year.

#### 10.4 Summary

The UK film industry is a significant contributor to the UK net trade position, with a trade surplus averaging £166 million since 1997. Indeed, the film industries' share of total export earnings is higher than its share in UK GDP. Alongside this direct effect on trade, UK film helps boost the demand for UK products by promoting the 'UK-brand'. And through the growing market in product placement, UK film also provides an outlet for exporters to advertise their specific products to a wide audience. The impact of these promotional benefits is estimated to be in the region of £100 million a year.

---

<sup>55</sup> 'Spending in Media', PQ Media 2005.

<sup>56</sup> Annual Business Inquiry, ONS, 2003.

## 11 Conclusions – summary of overall impact

This report sets out the contribution of the UK film industry to the UK economy. Taking into account the direct impact, the supply chain impact and the contribution to UK tourism, trade and merchandise sales, we estimate that the UK film industry in total:

- supported around 97,500 jobs in the UK in 2004.
- contributed around £3.1 billion to UK GDP in 2004.
- contributed around £850 million to the Exchequer (gross of tax relief and other fiscal support).

The breakdown of the employment, value added and tax contribution to the UK economy is summarised by the different channels of impact below. The direct and multiplier impacts account for 62% of the total, with the remainder of the contribution accounted for by wider impacts such as tourism, trade and merchandising.

**Table 11-1: Summary of the economic contribution of the UK film industry**

Channel of impact	Total contribution to UK GDP in 2004 (£ million)	Total contribution to Exchequer revenues in 2004 (£ million)	Employment impact in 2004
Direct	960	310	31,000
Multiplier (indirect and induced)	960	270	31,000
British film box office effect	38	15	1,400
Tourism	800	170	20,000
Promotion/trade	100	20	3,100
Merchandising	264	60	11,000
<b>Total</b>	<b>3,122</b>	<b>845</b>	<b>97,500</b>

*Note: The UK film industry includes the activities which arise in the UK from the companies / individuals employed in the different stages of film production in the UK (including pre- and post-production); distribution of UK-made films; and exhibition of UK-made films. Economic activity associated with the distribution and exhibition of films made abroad is not included.*

Production spend on inward investment films accounted for 63% of total production spend in 2003 and 68% in 2004. Assuming that value added and employment and tax revenues flow in a similar proportion, this would mean that inward investment films supported around 62,000 jobs, contributing about £2.0 billion to UK GDP and £550 million to Exchequer revenues (gross of tax relief and other fiscal support).

## **Appendix A: Estimating tax revenues**

The calculations on the tax contribution of the UK film industry are based on assumptions and estimates for VAT, income tax, national insurance, corporation tax and withholding tax. The overall direct tax take is estimated to have been £310 million in 2004, which is around 25% of the GDP of the UK film industry. This is similar to the share of direct tax revenues in GDP for the UK economy as a whole of 22%, made up of £118.4 billion from income tax, £72.5 billion from national insurance and £28.6 billion from corporation tax<sup>57</sup> in 2003-4 compared with GDP in basic prices of £976 billion<sup>58</sup>.

### **(i) Income tax**

Income taxes paid for by those directly employed in the UK film industry are estimated using HM Revenue & Customs (HMRC) tables<sup>59</sup> on the amount of tax take for different income groups together with the average incomes within the different sectors of the UK film industry.

### **(ii) National insurance (personal and employer national insurance)**

The estimate for employee contributions is based on class 1 standard employee contributions of 11% on earnings above the earnings threshold of £91 per week and less than £595 per week and for employers on a class 1 not contracted-out rate of 12.8% on earnings exceeding the earnings threshold of £91 (2004/05).

### **(iii) VAT**

Gross box office revenues for UK films in 2004 (in UK and Ireland) amounted to £192 million (and £173 million per annum on average over the past three years). We estimate that box office revenues for UK films in the UK only (ie excluding Ireland) were around £159 million per annum on average over the past three years, based on the fact that the UK takes around 90% of the total UK and Ireland box office. (Total box office revenues—including non-UK films – over the 2001-3 period were on average £714 million per annum for the UK compared to £795 million for UK and Ireland combined.)

VAT at 17.5% on these revenues produces a figure of around £23 million.

### **(iv) Corporation tax**

Estimating the value of corporation tax paid by the UK film industry is difficult, for three key reasons:

- The Section 42/48 tax relief schemes themselves directly affect the amount of corporation tax collected. These schemes allow expenditure on the production or acquisition of the master version of a film to be treated as if it were revenue expenditure (instead of capital expenditure), thereby reducing the amount of accounting profit available to be taxed.
- Complex accounting arrangements such as sale and leaseback structures or the use of specially created companies known as special purposes vehicles are also common.

<sup>57</sup> Source: HM Treasury Budget report.

<sup>58</sup> Source: UK Blue Book, Table 1.2 (reference B.1g).

<sup>59</sup> Income tax payable: by annual income, 2004/05: Social Trends 35 (Table 5.11).

- There are numerous accounting allowances and provisions available to business (particularly SMEs) which reduce the amount of taxable profit.

Our estimate of corporation tax paid to the Exchequer is therefore indicative. It is based on a top-down approach using data from the Annual Business Inquiry (specifically for the film sector<sup>60</sup>), and then validated against a bottom-up approach via analysis of the financial accounts of a sample of companies in the film industry.

For the top-down approach, we use net operating surplus as a measure of taxable profits. Gross operating surplus is calculated by subtracting total employment costs from gross value added. Net operating surplus is then gross operating surplus after taking into account consumption of fixed capital<sup>61</sup>.

A corporation tax rate is then applied to the net operating surplus. Many companies in the UK film industry are SMEs (small and medium sized enterprises). For example, the DCMS 2001 Mapping Document stated that half of VAT registered businesses had a turnover of less than £100,000. This means that many companies will not make enough taxable profits to pay the standard corporation tax rate.

Our estimate of the corporation tax paid is based on the assumptions that:

- 50% of profits attract the small companies' rate of corporation tax (ie 19%); and
- 50% of profits attract the standard corporation tax rate (30%).

This produces an estimate for gross corporation tax of £105 million. HM Treasury estimates state that film tax incentives were worth around £70 million in 2004/05. Our estimate of the actual corporation tax (or net figure) paid by film companies is therefore around £35 million. The gross and net figures are equivalent to around 1.5% and 4.6% of turnover respectively.

For the bottom-up approach, we have analysed the financial accounts of a sample of film companies. Corporation tax paid for the sample was calculated to be around 3.5% as a percentage of turnover, a figure which is between the gross and net figures calculated by our top-down approach. This is to be expected as the financial accounts of the film companies cover all aspects of their business (eg film, TV, media) whereas only the film element of the business will actually benefit from the film tax relief. The bottom-up approach therefore corroborates in very broad terms our top-down estimate.

#### **(v) Withholding tax**

This is a tax paid by film actors who are non-resident and typically high earners, which is estimated to be around £15 million in 2004/05<sup>62</sup>.

#### **(vii) Multiplier impacts**

The tax multiplier is assumed to be the same as the employment multiplier. But the tax multiplier is only applied to income tax, national insurance and corporation tax (ie those taxes which accrue in the supply chain of the UK film industry, rather than VAT on ticket sales or the withholding tax which do not). In the case of corporation tax, the tax multiplier is applied to the gross corporation tax of £105 million.

<sup>60</sup> Defined using the following Standard Industrial Classification (SIC) 92.11 (motion picture and video production), 92.12 (motion picture and video distribution), 92.13 (motion picture projection).

<sup>61</sup> See National Accounts concepts, sources and methods, ONS (page 445, 475).

<sup>62</sup> Approximate figure based on discussions with the Film Entertainment Unit, (part of HM Revenue & Customs).

The multiplier tax contribution is therefore estimated to be £272 million (or approximately £270 million), as summarised below.

	<b>Tax revenues</b>	
	<b>Direct (£ million)</b>	<b>Multiplier (£ million)</b>
Income tax	77	77
National insurance – employee	42	42
National insurance – employer	48	48
Value added tax	23	-
Corporation tax (gross)	105	105
Withholding tax	15	-
<b>Total</b>	<b>310</b>	<b>272</b>

*Source: HM Revenue & Customs; ONS; OEF estimates*

## **Appendix B: Oxford Economic Forecasting**

Oxford Economic Forecasting (OEF) was founded in 1981 to provide independent forecasting and analysis tailored to the needs of business economists and planners. It is now one of the world's leading providers of economic analysis, with over 300 clients including international organisations (such as the International Monetary Fund and World Bank); government departments; European central banks; as well as a large number of blue-chip companies in the UK, Europe and the US across the whole industrial spectrum.

OEF services range from regular reports and business seminars to user-friendly PC-based econometric models and databases of historical and forecast economic indicators supplied via its website [www.oef.com](http://www.oef.com). These services cover both the international and UK macroeconomy; the full range of industrial sectors globally; and detailed work on UK regions. OEF is a leading exponent in the design and development of detailed forecasting and policy evaluation models.

OEF also undertakes economic consultancy across a broad span of issues, for governments and leading companies. OEF has a strong track record in rigorous research and economic analysis in the field of economic impact studies.

OEF commands a high degree of professional and technical expertise, both in its own staff in Oxford and Philadelphia, USA, and through its close links with Oxford University and a wide range of economic research groups around the world. Senior staff at OEF are drawn from senior economist roles in HM Treasury, the Bank of England, the European Commission and Management Consultancy, as well as from other private sector organisations.