

# The Economic Impact of the UK Film Industry

**Oxford Economics** 

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#### **DEFINITIONS**

### The UK film industry and the 'core' 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 films (both UK and foreign-made); and
- exhibition of films (both UK and foreign-made).

This is a wider definition of the UK film industry than used in our 2005 report.

However, the focus of this report – like the 2005 study – is on a narrower range of activities, which for clarity we now term the 'core UK film industry'. This includes companies and individuals involved in all film production in the UK. But it only includes the activities in the distribution and exhibition sector associated with UK-made films.

This means that the economic activity associated with the distribution and exhibition of films made abroad is <u>not</u> included in the estimates of the core UK film industry presented in this report. A UK film is defined as any film which is certified to be British by the Secretary of State for Culture, Media and Sport under Schedule 1 of the Films Act 1985.

# 1. Key points

- The core UK film industry is a substantial industry, directly employing 33,500 people in 2006 and supporting a total of 95,000 jobs, taking into account those working in its supply chain and its contribution to UK tourism, trade and merchandise sales.
- The film industry provides jobs for some of the UK's most highly qualified workers. 59% of the production workforce are university educated, while 23% of the production workforce have a graduate level qualification specifically relevant to the film industry.
- UK films contribute substantially to the cultural life of the country.

  They are a key means of expression of UK identity and address issues of diversity that are critical to meeting the challenges of the 21<sup>st</sup> century.
- Films depicting the UK are responsible for attracting about 1 in 10 overseas tourists, spending around £1.8 billion a year.
- Exporters also benefit from the part UK films play in establishing and reinforcing the country's image and 'brand'. This is helped by nine of the top 25 worldwide films since 2001 being premiered or co-premiered in the UK, which has generated substantial media exposure for the country.
- Overall, the core UK film industry contributed over £4.3 billion to UK GDP in 2006, taking into account its multiplier impacts, and over £1.1 billion to the Exchequer (gross of tax relief and other fiscal support).
- The film industry is one of the UK's most carbon-friendly sectors. Initial estimates suggest that its emissions per £1,000 of GDP contribution are only half those of the economy as a whole.
- The Film Tax Relief is vital to sustaining the competitiveness of film production in the UK. With that tax incentive in place, we expect the UK to attract £800 million a year of inward investment productions by 2010, supporting a continuation of the long-term trend expansion of the core UK film industry and its contribution to UK plc.
- Without the Film Tax Relief, we estimate that film production in the UK would be around 75% smaller. But the cost to the UK as a whole would be much greater, reducing UK GDP by around £1.3 billion a year and Exchequer revenues by about £350 million a year.

# 2. Executive Summary

- The support provided through tax incentives to encourage investment in films in the UK, first established in 1992, 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 core UK film industry contributes to UK plc, we calculate that it contributed over £4.3 billion to GDP in 2006 and over £1.1 billion to the Exchequer in tax revenues (gross of tax relief and other fiscal support).
- The Film Tax Relief is vital to sustaining the competitiveness of film production in the UK. Without the Film Tax Relief, we estimate that film production would be 75% smaller, at a cost of around £1.3 billion of lost GDP a year and about £350 million lower Exchequer revenues.

# The core UK film industry has become a substantial industry...

- ... directly employing 33,500 workers...
- The core UK film industry directly employed around 33,500 full-time equivalents (FTEs) in 2006 (including those self-employed). It means that the core UK film industry is of similar size to, for example, the book publishing industry and larger than the IT hardware consultancy sector.
- While around three-quarters of the jobs in the core 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 1,800 jobs in the South West and 1,600 jobs in the North West, and supports well over 3,000 in each of these two regions overall taking into account multiplier impacts.

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

- The film industry provides jobs for some of the UK's most highly qualified workers. For example, 59% of the production workforce are university educated, while 23% of the production workforce have a graduate level qualification specifically relevant to the core UK film industry. Furthermore, boosting and updating skills in the core UK film industry is a key priority of the UK Film Council through its 'A Bigger Future' skills strategy. The core UK film industry also attracts many highly skilled foreign workers to the UK. The Skillset survey suggests that around a tenth of UK-based production staff are non-British.
- 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 £31,700 per annum in 2006, a third higher than the UK average income. The occupations which earn the highest wages are in editing/post-production/visual effects, production/script and development, and sound/electrical, 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 core 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 £1.5 billion a year to GDP...

- On a turnover of £3.3 billion, the core UK film industry directly contributed around £1.5 billion to UK GDP in 2006. This means that the core UK film industry contributed more than twice as much to GDP than, for example, the machine tools manufacturing industry.
- The core UK film industry has undertaken a total of £635 million of fixed capital investment in infrastructure and new technology since 2000.

# ... and over £430 million to the Exchequer

The core UK film industry is estimated to have directly contributed about £435 million to the
Exchequer in 2006 in income tax, national insurance contributions, VAT and corporation tax (gross of
tax relief and other fiscal support). This is equivalent to 13% of the turnover in the core UK film
industry.

# The core UK film industry has a symbiotic relationship with other creative industries

- For every job supported in the core UK film industry a further job is supported through indirect and
  induced multiplier impacts. The core UK film industry therefore helps to support 67,000 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.
- In addition, the showing of UK films helps UK TV broadcasters to generate about £235 million of revenues.
- This 'multiplier' activity contributes a further £1.6 billion a year to UK GDP and £420 million a year to UK tax revenues.
- The core UK film industry has synergies with a wide range of other creative industries. Writers, actors, directors and others involved in production obviously work in a variety of other media. And two-thirds of firms involved in the film industry in the UK also work in at least one other screen industry.
- But there are also important spillovers from technical developments in the film industry to other media
   most notably, computer imagery developed for films have been used to great effect in TV

programmes and commercials.

# The core UK film industry's impact is much wider...

• The core 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 core UK film industry contributes substantially to the cultural life of the UK. Successful UK films are a means of expression of British identity. UK films also address the social challenges that the country faces in the 21<sup>st</sup> century, including drug addiction, prejudice and race relations.
- 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 30% 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 £50 million a year over the last decade. As a result, employment in the exhibition sector of the core UK film industry has probably been around 500 higher than it would have been if cinemas had been showing only foreign films, with tax revenues around £8 million a year higher.
- But the support provided to the core UK film industry has also ensured that several film-makers 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. And the UK currently benefits from stories originally set overseas being translated to the UK when they are mad into films. For example, Run Fat Boy Run was originally written as being set in New York but London has been chosen as the backdrop for the film, with significant help and support from Film London.

# ...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.
- The impact of film on tourism is well-documented through a number of case studies and is recognised in the marketing campaigns of tourist boards around the world. For example, Movies Maps are available to direct tourists to key locations depicted in films such as *Match Point, Closer, Bridget Jones, Love Actually, Thunderbirds, Miss Potter* and *Pride and Prejudice.*
- While there is limited robust statistical data quantifying the value of this impact, the available evidence suggests around 1 in 10 visits may be attributed to the impact of UK films.
- On this basis we estimate that around £1.8 billion of visitor spend a year might be attributable to UK films.

 In 2006, this additional spending is estimated to be worth £900 million to UK GDP and £200 million to the Exchequer.

# ...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'. This is helped by nine of the top 25 worldwide films since 2001 being premiered or co-premiered in the UK, which has generated substantial media exposure for the country.
- The role of film and other creative industries in trade promotion is reflected in the part-sponsorship by the Department for Culture Media and Sport (DCMS) of 'China UK: Connections through Culture' (CtC). This initiative aims to develop further cultural co-operation between the UK and China, including trade ties. 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 £20 million in GDP.
- The core UK film industry is a significant contributor to export earnings in its own right. In 2005, total
  exports of the film industry were £967 million, with a net contribution of £163 million to the UK balance
  of payments.

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

- The core 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 £135 million in 2006; rentals of UK films on DVD/video were worth an additional £45 million; sales of soundtrack CDs were £5 million; and sales of related computer/video games were £60 million. In addition, UK films support sales of books, toys, models and clothes.
- The importance of merchandising was acknowledged by the new Prime Minister on a visit to China in 2005 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 6,500 jobs in 2006, contributed about £235 million to UK GDP and £105 million to the Exchequer.

# The core UK film industry generated in total over £4.3 billion of GDP in 2006 and Exchequer revenues of over £1.1 billion...

- Taking into account all of the ways in which the core UK film industry contributes to UK plc, we calculate that it contributed over £4.3 billion to GDP in 2006, paid over £1.1 billion to the Exchequer in tax revenues (gross of tax relief and other fiscal support) and supported a total of about 95,000 jobs.
- Within these totals, inward investment films generated about £3 billion to GDP in 2006 and £800 million in Exchequer revenues.

# ... with the Film Tax Relief vital to maintaining the competitiveness of the core UK film industry...

- Competition to attract film producers to shoot their film in a particular country is fierce. This
  competition partly focuses on the physical attributes of a country; the costs for labour and the renting
  of locations and sets; and the relative skills of the film production workforce. But a key element is tax
  competition.
- Taking account of the incentives provided by the new Film Tax Relief, our estimates show that the
  costs of producing a film in the UK are set to fall relative to those in its competitors over the rest of the
  decade, so that by 2010 UK film costs are expected to be around 27% lower than those in the US and
  only 7% higher than those in the Czech Republic.
- On this basis, we expect the core UK film industry to attract around 11% of global film production over the period to 2010, with spend on inward investment productions rising to about £800 million by 2010.
   This should underpin a continuation of the long-term trend expansion seen in the core UK film industry.

# ...facilitating £1.3 billion a year of GDP that would be lost with no tax credit

- The importance of the Film Tax Relief to supporting the continued success of the core UK film industry
  is clear when we consider how UK competitiveness would be affected if there were no tax incentives
  from 2008 onwards. In this case, the UK's cost advantage vis-à-vis the US would fall to 15%. And
  UK film costs would be almost 25% higher than those in the Czech Republic over the remainder of the
  decade.
- We estimate that this loss of competitiveness would reduce the UK's share of global film production by around 9% points by 2010, to around 2%. That would be equivalent to a loss of inward investment of about £650 million a year by 2010. In addition, investment in domestic production and co-productions would also be seriously undermined. Overall UK film production might be reduced by 75% by the abolition of the Film Tax Relief.
- A decline in film production of that scale would have substantial economic effects:
  - It would reduce the direct contribution of the core UK film industry to GDP by about £1.1 billion and by £2.25 billion taking account of impacts on the supply chain and on the spending of workers who lose their jobs. Similarly, employment in the core UK film industry would be expected to fall by around 25,000 jobs directly and 50,000 taking account of multiplier effects.
  - While many of those currently working in the core 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 £200 million a year.
  - Over time, tourism and exports would be undermined as they lose the promotional support provided by UK films.

- In addition, the UK's cultural life would suffer as a result of the loss of UK films.
- Overall, UK GDP would in the medium term be reduced by around £1.3 billion a year.
- These losses in turn would reduce Exchequer tax revenues by about £350 million a year, taking account of multiplier impacts and effects on merchandising. That compares with an estimated cost of the new Film Tax Relief to HM Treasury of around £120 million a year.

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

Channel of impact	Total contribution to UK GDP in 2006	Total contribution to Exchequer revenues in 2006	Employment impact in 2006
Direct	£1,510 mn	£436 mn	33,500
Multiplier (indirect and induced plus TV)	£1,625 mn	£420 mn	33,500
British film box office effect	£53 mn	£8 mn	500
Tourism	£900 mn	£200 mn	20,000
Promotion/trade	£20 mn	£5 mn	700
Merchandising	£235 mn	£105 mn	6,500
Total	£4,343 mn	£1,174 mn	94,700

Note: The core 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.  $\mathfrak{L}mn = \mathfrak{L}$  million.

#### Introduction 3.

This report, prepared by Oxford Economics<sup>1</sup>, provides a comprehensive evaluation of the economic contribution of the 'core UK film industry'. It provides an update and extension of our previous study looking at the film industry published in 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 non-UK qualifying films - is not included in our definition of the core 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 gualifying films. A UK film is currently defined as any film which is certified British by the Secretary of State for Culture, Media and Sport under Schedule 1 of the Films Act 1985 (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 three segments:

• Production: rights (eg IP creation); planning, writing, direction and casting; cast (eg costume, makeup, 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); and post-production including editing, music, sound, and post-production computer generated imagery (CGI).

<sup>&</sup>lt;sup>1</sup> Appendix B gives a brief description of Oxford Economics, its services, capabilities and experience. <sup>2</sup> The Economic Contribution of the UK Film Industry, September 2005

<sup>&</sup>lt;sup>3</sup> For example, the activity in the distribution/exhibition sector associated with a film like Casino Royale is included but not the activity associated with Pirates of the Caribbean.

- Distribution: film duplication; secondary distribution of UK-made films (video, DVD, TV sales, online etc).
- Exhibition: cinema distribution of UK-made films

# 3.2. Film Tax Relief and the definition of a UK qualifying film

New rules for the taxation of film production, and in particular a new enhanced tax relief (Film Tax Relief) for the production of British cinema films, were introduced by Finance Act 2006. They apply to films which commenced principal photography on or after 1 January 2007 and to films starting principal photography before 1 January 2007 but uncompleted then.<sup>4</sup>

The film tax relief is aimed directly at film production companies and is not available to those whose only involvement in film-making is confined to providing or arranging finance. In order to qualify, a film must meet three conditions. It must:

- Be made to be shown commercially in cinemas;
- Be certified as British either because it is an official co-production or because it satisfies a new cultural test administered by the Department for Culture Media and Sport; and
- Incur at least 25% of its total production expenditure on film-making activities in the UK.

British films costing £20 million or less are eligible for an additional tax deduction of 100% of qualifying UK expenditure and to surrender losses in exchange for a cash payment of 25%, amounting to a benefit worth a maximum of 20% of qualifying production costs. Other British films will receive an additional deduction of 80% of qualifying UK expenditure and will be able to surrender losses in exchange for a cash payment of 20%, amounting to a benefit worth typically 16% of qualifying production costs.

A British film is one which is given a certificate to that effect by the Secretary of State for Culture, Media and Sport under Schedule 1 of the Films Act 1985. Such a certificate may either be interim, if the film has not been completed, or final, if it has. The Secretary of State certifies films on the advice of the UK Film Council.

There are three ways in which a film can qualify as British. It may:

- Satisfy the new 'cultural test' now added into Schedule 1 of the Films Act 1985. This considers four aspects of the cultural contribution of a film:
  - Cultural content (eg whether it is set in the UK or its lead characters are UK citizens or residents)
  - Cultural contribution (eg whether the film represents/reflects a diverse British culture, British heritage or British creativity)
  - Use of cultural hubs (eg in post-production or music)

<sup>&</sup>lt;sup>4</sup> Source: HM Revenue and Customs at http://www.hmrc.gov.uk/films/guidance/index.htm

- Use of cultural practitioners (eg the director, lead actors and so on)
- Meet the terms of one of the United Kingdom's bilateral co-production treaties; or
- Meet the terms of the European Convention on Cinematic Co-Production.

In all cases, the film must be formally certified to qualify for Film Tax Relief.

# 3.3. The channels of economic impact

There are many channels through which the core 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 core 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 core 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
  core 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 core 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 core 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 core UK film industry.

• **Promotion and trade** – the core 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 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 core 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).

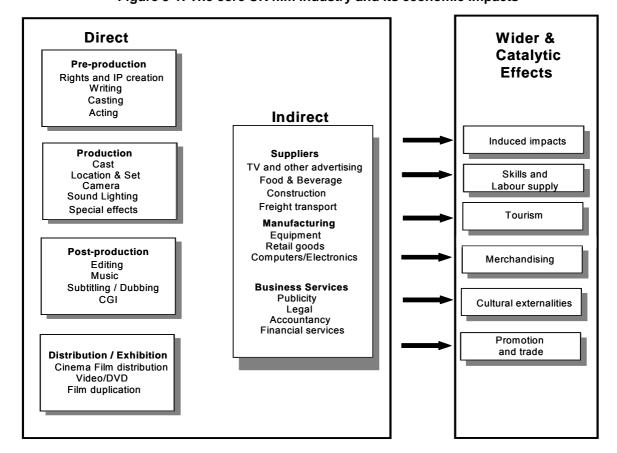


Figure 3-1: The core UK film industry and its economic impacts

# 3.4. Report structure

The rest of this report is structured as follows:

- Chapter 4 focuses on the direct impact of the core UK film industry in terms of employment, GDP and investment.
- Chapter 5 assesses the productivity of the core UK film industry and related indicators such as average wages, education, and skills and training.
- Chapter 6 discusses the multiplier impacts of the core UK film industry the so-called indirect and induced impacts.

- Chapter 7 covers the impact of the core UK film industry on tourism.
- Chapter 8 looks at the impact of the core UK film industry on the enhancement and appreciation of UK culture.
- Chapter 9 looks at the value of merchandising associated with the core UK film industry.
- Chapter 10 looks at the way the core UK film industry promotes the UK and its trade more generally.
- Chapter 11 assesses the stimulus provided to the core UK film industry by the Film Tax Relief.
- Chapter 12 summarises the overall economic contribution of the core UK film industry.

# 4. Direct impact – Employment and GDP

The film industry in the UK has grown significantly 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 120 a year since 2000<sup>5</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 162 million per annum since 2000. However, cinema admissions peaked in 2002 and UK box office revenues peaked in 2004. In 2006, UK box office revenues amounted to £762 million from cinema admissions of 156.6 million; respectively around 1% and 9% lower than the corresponding 2004 figures.

This chapter details 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 – referred to here as the 'core UK film industry'. It also quantifies the direct contribution of companies and employees in the core UK film industry to the Exchequer through income and other taxes.

#### **Key Points**

- The core UK film industry directly employed around 33,500 full-time equivalents (FTEs) in 2006 (including those self-employed).
- On a turnover of £3.3 billion, the direct contribution of the core UK film industry to UK GDP is estimated to have been around £1.5 billion in 2006.
- Capital investment in the core UK film industry is estimated to have been £120 million in 2006, with most of the investment undertaken in the production sector. Since 2000, fixed capital investment in infrastructure and new technology has totalled around £635 million.
- The direct tax contribution of the core UK film industry via income tax, national insurance contributions, corporation tax and net VAT was about £435 million in 2006 (gross of tax relief and other fiscal support).

# 4.1. Direct employment

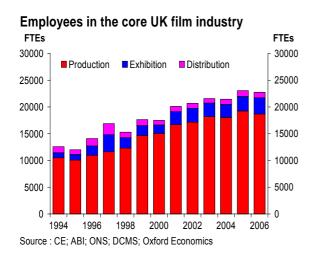
Employment in the core UK film industry has been rising steadily since the mid-1990s (Charts 4-1 and 4-2). Total direct employment is estimated to be around 33,500 in terms of full-time equivalents (FTEs)<sup>6</sup>. This means that the core UK film industry is of a similar size to, for example, the book publishing industry and larger than the IT hardware consultancy sector.

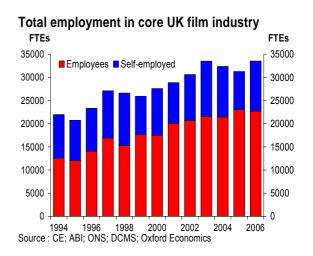
<sup>&</sup>lt;sup>5</sup> Box office revenue figures and admission numbers are taken from 'UK Film Council Statistical Yearbook 2006/07' and from BFI.

<sup>&</sup>lt;sup>6</sup> Based on the assumption that one part-time job equates to 0.5 of a full-time job.

These estimates (and our estimates for the core 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 four years<sup>7</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 1994-2006 period.

Chart 4-1:





**Chart 4-2:** 

Table 4-1 details the size, in terms of employment, of the different areas of the core UK film industry. An estimated 18,700 FTE employees (or 55.8% of the total) work in the production sector; distribution supports 1,000 FTE jobs (3.0%); and exhibition supports 3,000 FTE jobs (9.0%). Self-employment of around 10,800 FTE jobs (32.2%) accounts for the remainder of the workforce.

Table 4-1: Employment in the core UK film industry, 2006

		Employment	
Film Sector	Total jobs	FTE jobs	FTE jobs including self- employed
Production	21,800	18,700	28,450
Distribution	1,100	1,000	1,350
Exhibition	4,600	3,000	3,750
Employees	27,500	22,700	33,500
Self-employed	11,400	10,800	-
Total	38,900	33,500	-

Source: CE; ABI; ONS; Oxford Economics estimates

<sup>&</sup>lt;sup>7</sup> Using results from the Annual Business Inquiry and the Labour Force Survey.

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

- A 70% increase in employment in the production sector since 1996, creating an additional 7,700 FTE jobs.
- A 74% increase in employment in the exhibition sector since 1996, creating an additional 1,300 FTE jobs, although there are now 350 fewer jobs in the distribution sector than a decade ago.
- An increase in self-employment since 1996, creating an extra 1,550 FTE jobs, although the share of self-employment in the core UK film industry has declined slightly over the 1996-2006 period.

Overall, the core UK film industry has created around 10,200 new FTE jobs since 1996, an increase of 44%.

### 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 £3.3 billion, the core UK film industry contributed around £1.5 billion to UK GDP in 2006. This means that the core UK film industry contributed slightly more to GDP than, for example, the manufacture of office machinery and computers or the manufacture of medical and surgical equipment and orthopaedic appliances, and more than twice as much as the machine tools industry. Table 4-2 shows the composition of core UK film industry value added. In 2006, the production sector accounted for around 70% of total value added, with the distribution/exhibition sector accounting for the remaining 30%.

Table 4-2: Sales and value added in the core UK film industry, 2006

Film Sector	Sales £ million	Value added £ million
Production	2,350	1,060
Distribution	620	250
Exhibition	310	200
Total	3,290	1,510

Source: CE; ABI; ONS; Oxford Economics estimates

Value added in the core UK film industry has increased on average by 8.1% per annum over the 1996-2006 period in current prices (Chart 4-3) or 5.5% in real (inflation-adjusted) terms (Chart 4-4). This is faster growth than recorded by the overall economy, with the direct contribution of the core UK film industry to GDP increasing substantially in real terms since 1996.

The core UK film industry was hit harder by the downturn in the global economy in 2001 and 2002 than the economy as a whole, but has since recovered strongly, growing at nearly 9% per annum since 2003.

**Chart 4-3:** Value added in the core UK film industry GVA in current prices (£ million) 1600 1800 1600 1400 ■ Production Exhibition Distribution 1400 1200 1200 1000 1000 800 800 600 600 400 400

2001

Source: CE; ABI; ONS; DCMS; Oxford Economics

2003

2005

Chart 4- 4: Growth (in real terms) in value added in the core UK film industry 400 Film 350 UK Economy Creative 300 250 200 150 100 50 Index (constant prices) 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 Source: CE; ABI; ONS; DCMS; Oxford Economics

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 1994-2003 period reflects an increase from a very low base of £242 million in 1994 to a peak of £1,158 million in 2003. Recent years have been more volatile, with production falling to £810 million in 2004 and £577 million in 2005, largely due, according to industry sources, to uncertainty over the future level of the Film Tax Relief. But production recovered to £842 million in 2006 (see Chart 4-5). Production is expected to maintain that level in 2007.

200 0

At the heart of the changes in UK production spend are inward investment productions<sup>8</sup>, which rose fourfold in value between 1994 and 2003. They then dropped sharply in 2004 and 2005 to a low of £309 million, before recovering to £570 million in 2006. Inward productions now account for 68% of production activity in the UK, with US studios responsible for 63% of these.

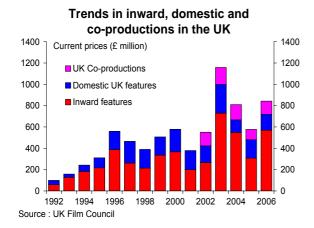
# 4.3. Direct investment

200

Across the core UK film industry, fixed capital investment attributable to the UK film sector is estimated to have been £120 million in 2006 (Chart 4-6). A significant amount of investment is made 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.

<sup>&</sup>lt;sup>8</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 attracted to the UK because of its infrastructure or locations.

Chart 4-5 Chart 4-6



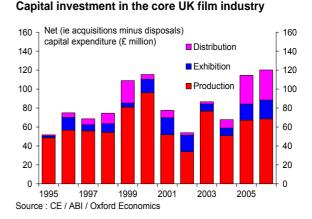


Table 4-3 shows average investment in each sector of the core UK film industry since 2000. Investment per FTE employee on average has been £4,300 per annum, with the highest investment in the distribution sector, at £13,400 per annum. In the production (including pre- and post- production) sector, investment per FTE worker has been around £3,600 a year since 2000. This means that the core UK film industry invests more per worker than, for example, the average across the all manufacturing industries (£3,500 per FTE worker in 2005); computing and related activities (£2,300); and hotels and restaurants (£2,500). The distribution sub-sector of the core UK film industry invests more per worker than the research and development sector (£4,700 per FTE worker in 2005).

Table 4-3: Investment in the core UK film industry

	Net capital investment (per annum average for 2000-6)	
Sub-sector	£ million	£ per FTE employee
Production	63.7	3,621
Distribution	12.7	13,405
Exhibition	14.4	5,831
Total	90.8	4,323

Source: CE; Oxford Economics 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 core UK film industry is estimated to have contributed around £436 million to the Exchequer in 2006 (gross of tax relief and other fiscal support). This is equivalent to nearly 30% of value added in the core UK film industry. Almost half of the tax revenues raised for the Exchequer arise from corporation tax payments (gross of tax relief); most of the remainder is from income taxes and national insurance.

Table 4-4: Estimates of direct tax contribution from the core UK film industry, 2006

	Tax revenues (£ million)
Income tax	93
National insurance – employee	48
National insurance – employer	39
Value added tax	29
Corporation tax (gross <sup>9</sup> )	212
Withholding tax	15
Total	436

Source: HM Revenue & Customs; ONS; Oxford Economics estimates

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

The core 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 deliver lasting benefits to the industry and the public alike through:

- Creativity encouraging the development of new talent, skills, and creative and technological innovation in UK film and assisting new and established film-makers to produce successful and distinctive British films;
- Enterprise supporting the creation and growth of sustainable businesses in the film sector, providing access to finance and helping the core UK film industry compete successfully in the domestic and global marketplace;
- Imagination promoting education and an appreciation and enjoyment of cinema by giving UK

<sup>&</sup>lt;sup>9</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.

audiences access to the widest range of UK and international cinema, and by supporting film culture and heritage

The UK Film Council received around £24 million in 2006/07 directly from DCMS. In addition, the UK Film Council received support from the National Lottery amounting to £26 million in 2006/07.

The UK Film Council's main initiatives to help build a stable and growing UK film industry and develop film culture in the UK include:

- The Development Fund with £12 million over three years to support the development of a stream of high quality, innovative and commercially attractive screenplays. This fund is the largest of its type in Europe.
- The Premiere Fund with £24 million over three years to facilitate the production of popular, more mainstream films.
- The New Cinema Fund with £15 million over three years to back radical and innovative filmmakers, especially new talent, and to explore new electronic production technologies. Its short film schemes have produced over 450 films.
- The Print and Advertising Fund of £6 million over three years to support the distribution of a broader range of films to audiences across the UK.
- The Digital Screen Network is a world first providing over £11 million to equip around 240 screens in over 210 cinemas (approximately 1 in 4 cinemas) with state of the art digital projection equipment.
- International the UK Film Council's International strategy encourages international productions from outside the UK to come and use Britain's world-class production and facilities infrastructure; supports UK film export; develops international relations and supports UK production infrastructure.
- Diversity The UK Film Council's diversity strategy aims to help the sector to: achieve a more diverse
  workforce behind and in front of the camera, across the film sector value chain; enable all groups
  within our society to participate in and enjoy film culture as audiences and learners; and ensure that
  equality and diversity commitments are fully integrated into every aspect of all core UK Film Council
  activities.

In addition the UK Film Council distributes National Lottery and grant in aid funds to:

- First Light a £1.1 million a year Lottery funded digital short filmmaking scheme aimed at helping young people to gain first hand experience of filmmaking.
- Skillset the first ever comprehensive training strategy for the British film industry was launched in September 2003. A package of measures is being rolled out backed by an investment of around £50 million over the next five years which as a whole aim to build a bigger and better future for the film industry in the UK.

- **BFI** The British Film Institute receives £16.5 million per year from the UK Film Council and plays a key role in achieving the UK Film Council's goals and fostering public appreciation of film through improved access to cinema, film heritage and educational provision.
- **Regional Screen Agencies** £7.9 million a year is allocated to regional film bodies across England, all working to create a clear film strategy for each English region and provide cash support for production, screen commissions, cinema exhibition, training, archives and education.

Adding the DCMS and the National Lottery contributions to the UK Film Council means that support to the core UK film industry was in the region of £50 million in 2006/07. It is expected to rise to £55 million in 2007/08, back to levels seen in 2005/06.

There are also tax incentives for film production. HM Treasury estimates that film tax incentives cost around £480 million in 2006/07<sup>10</sup>, including the consolidation of future relief available under Section 42 and Section 48 legislation. But the Exchequer cost of tax incentives is expected to fall to £120 million in 2007/08 following the changes to the Film Tax Relief that came into force on 1 January 2007.

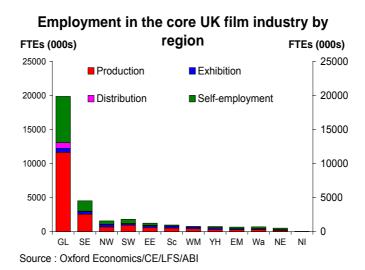
In addition, public sector support for film is provided by many local authorities, the British Council, and the Arts Councils of Scotland, Wales and Northern Ireland. This is given to, for example, specialised films and art-house cinemas, although comprehensive figures on the amount of support provided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

# 4.5. Direct regional impacts

The core 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 20,000 FTEs, or 60% of total jobs, are concentrated in the London area, with a further 4,500 (14%) in the South East. The South West, North West and East are the regions where the next largest numbers of jobs are located at 1,800 jobs, 1,600 jobs and 1,300 jobs respectively.

<sup>&</sup>lt;sup>10</sup> Although because of overheads they were not worth that much to the film industry.

**Chart 4-7:** 



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 particularly concentrated in this locality<sup>11</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. Recent big budget films made at Pinewood have included Casino Royale, His Dark Materials the Golden Compass, Mamma Mia, Inkheart and The Da Vinci Code.
- 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*.
   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 core 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 *The Importance of Being Earnest*, Notting Hill and Star Wars Episode 2.

<sup>&</sup>lt;sup>11</sup> London Cultural Capital – Realising the potential of a world-class city, Greater London Authority (April 2004).

Outside London there are centres of film production in Central Scotland, Cardiff, Manchester and Liverpool, Bristol and Nottingham. In addition, all regions host location shoots to a greater or lesser extent (for example, *Harry Potter* at Alnwick Castle in Northumberland).

The UK Film Council invests almost £8 million a year into regional film activities through the Regional Investment Fund for England (RIFE) which supports the nine Regional Screen Agencies in England providing a variety of resources aimed at developing public access to, and education about, film and the moving image. There are also national screen agencies for Scotland, Wales and Northern Ireland (Figure 4-1).

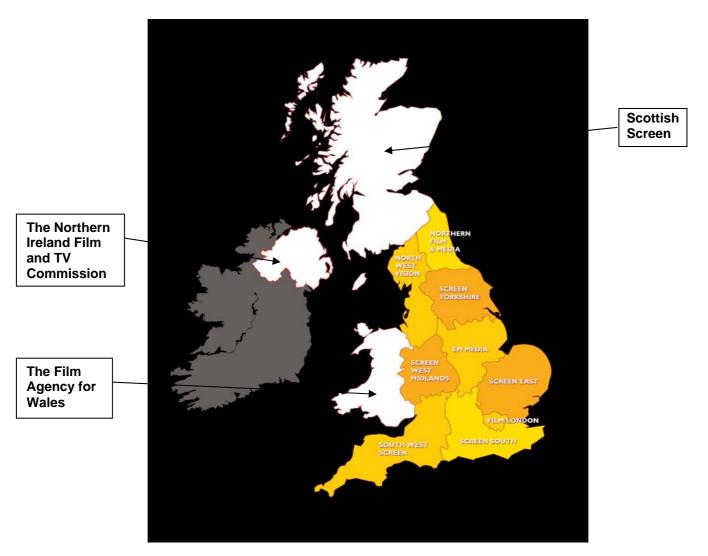


Figure 4.1: The National and Regional Screen Agencies

The film industry is part of a wider screen industry cluster (ie film, TV, corporate video, commercials and interactive media). Indeed, multi-sector working is particularly widespread, with two-thirds of firms in the

screen industries operating in more than one screen industry sector (see Chapter 6). 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.

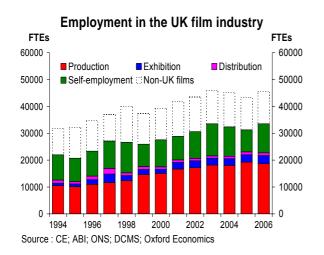
The existence of clusters boosts growth through a variety of ways. Clusters raise productivity by allowing access to specialised inputs and employees, and increase firms' capacity for innovation by diffusing technological knowledge and innovations more rapidly. They also stimulate higher rates of new 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 promotional benefits of film).

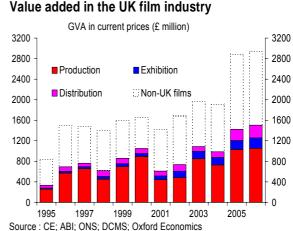
# 4.6. Economic impact from non-UK films

The above sections provide estimates of employment and value added for the core UK film industry only. A further 12,000 people (FTE-basis) 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 around 45,000 FTE jobs, with a GDP contribution of £2.9 billion in 2006. Charts 4-8 and 4-9 illustrate the trend in employment and value added over the 1994-2006 period.

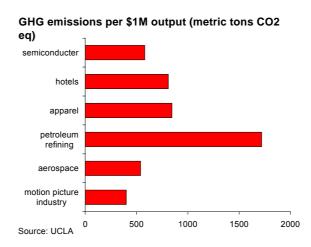
Chart 4-8 Chart 4-9





# 4.7. The carbon footprint of the UK film industry

There are no direct estimates of the carbon footprint of the UK film industry. However, a study by UCLA Institute of the Environment has calculated the greenhouse gas (GHG) emissions associated with \$1 million of output of the US motion picture industry compared with a range of other sectors<sup>12</sup>. Chart 4-10 shows that GHG emissions per \$1 million of final output of the US motion picture industry are around half those of the apparel and hotels sectors, and about two-thirds those of the semiconductor and aerospace sectors. A similar pattern would be expected for the core UK film industry relative to the equivalent sectors in this country.



**Chart 4.10** 

An alternative approach is to consider the GHG emissions created by an individual film and extrapolate those to estimate the emissions for the core UK film industry as a whole. An environmental audit for *The Day After Tomorrow*<sup>13</sup> estimated that 10,000 metric tonnes of CO2-equivalent were associated with its production, which had a budget of \$125 million. The core UK film industry's turnover was £3.3 billion in 2006 and, if its emissions were at the same rate as for *The Day After Tomorrow*, we might anticipate that it emitted about 530,000 tonnes of CO2-equivalents. That is about 0.35 tonnes per £1,000 of GDP which compares with 0.6 tonnes per £1,000 of GDP for the economy as a whole.

Clearly, there are a number of significant assumptions made in generating such an estimate, and it should therefore be treated as only illustrative. However, combined with the results of the UCLA study, it does suggest that the core UK film industry is among the more carbon-friendly of the UK's industrial sectors.

<sup>&</sup>lt;sup>12</sup> Sustainability on the Motion Picture Industry, University of California Los Angeles Institute of the Environment, November 2006

Source: Future Forests, cited in UCLA Institute of the Envirnoment, op. cit.

# 4.8. Summary

The core 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, an increase in exhibition and an increase in self-employment.

# 5. Productivity – skills education and training

This chapter looks at productivity in the core 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 59% of the workforce are graduates in the production sector as a whole (including pre- and post-production), rising to 74% in the post-production sector and over 80% among those who work in costume. Average gross wages in the UK production sector as a whole are £31,700 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 £39,050 per annum.
- A key feature of the core 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 – with people working an average of 10.8 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>14</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 core UK film industry have on average a higher level of qualifications than the population at large. In particular:

- 59% of the workforce are university educated with either a postgraduate qualification (15%) or an undergraduate qualification (44%). This compares with, for example, 28% of the population of working age in England who have qualifications of level 4 or above 15.
- 23% of the workforce have a graduate level qualification specifically relevant to the core UK film industry.
- The production/script development, editing/post-production/visual effects and costume sectors are the

<sup>&</sup>lt;sup>14</sup> Feature Film Production Workforce Survey 2005 and 2006 Film Sector Survey - Project Update, Skillset, The Sector Skills Council for the Audio Visual Industries.

<sup>15</sup> Source: The Level of Highest Counting States 1914 12 Additional Counting States 1914 12 A

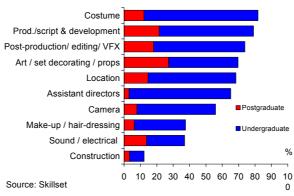
<sup>&</sup>lt;sup>15</sup> Source: The Level of Highest Qualification Held by Adults: England 2006, Office for National Statistics, March 2007. Level 4 and above qualifications include first and higher degrees, NVQ level 4 and 5, teaching or nursing qualifications, HE diploma, HNC/HND or equivalent vocational qualifications.

most qualified parts of the workforce, with over 70% being graduates (see Chart 5-1).

• The lowest income group includes some of the most highly qualified people. Around 66% of people who earn less than £20,000 per annum are educated to degree level. Undertaking unpaid work is increasingly seen as the way to enter the film industry from university – around half of people who entered the industry between 2000 and 2006 did unpaid work first before securing paid employment.

Chart 5-1

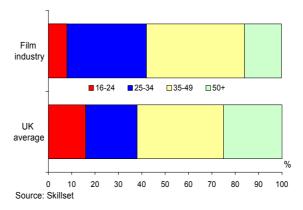
Highest qualification obtained by the UK film industry workforce



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 8% 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



# 5.2 Wages and salaries

According to the Skillset survey, the average gross income per annum for workers in the UK production sector is £31,700 which is 34% higher than the UK average for full-time employees of £23,600 in 2006<sup>16</sup>. Value added per FTE worker (including self-employment) is estimated to be around £45,000 in 2006, 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 editing/post-production/visual effects, production/script and development, and sound/electrical.

Average annual gross income\*
by occupational group

Sound
Sound
Sound
Sound
Sound
Sound
Sound
Art & set.
Coation
Construction
Construction
Gircciors
Gircciors

Are a set.

All Assist:

Chart 5-3

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 74% of people in the production sector experiencing a spell of unemployment in the past year (and around 34% 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.

<sup>&</sup>lt;sup>16</sup> 2006 Annual Survey of Hours and Earnings, Office for National Statistics, October 2006.

Average length of unemployment by occupational group

Weeks unemployed

**Chart 5-4:** 

Art & set
Assist:

Gamera
Coamera
Sound
Fectrical
Postproduction
Make-up
Prod/Script & development

Evidence from the Skillset survey suggests that the film production sector's workforce is flexible. Working long hours is the norm – respondents reported that they worked an average of 10.8 hours per day on their most recent film production. The 2005 survey provided more detail than the 2006 update on working hours, showing:

- 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.

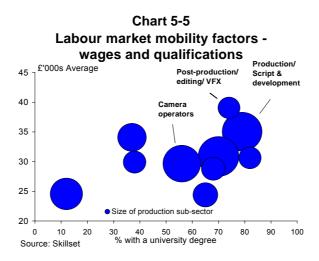
# 5.3 Skills and mobility

The core 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 (preproduction/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 core UK film industry are inherently transferable to companies in other countries. 39% of respondents to the Skillset survey indicated that they had spent time working outside the UK over the last year in the film industry or related sectors.

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 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.



Another factor which affects mobility is nationality. The core UK film industry attracts many highly skilled foreign workers to the UK. The Skillset survey suggests that around a tenth of UK-based production staff are non-British.

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 core 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 core 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 core 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>17</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 Audio Visual 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. This includes providing:

- Advice and information about careers to people hoping to enter, or already in, the industry.
- Advice on the industry for careers advisers.
- Support to film academies, the Film Business Academy and other education providers to deliver high-level qualifications for the industry
- · Support to professional development and training
- · Support for emerging talent
- · Bursaries for freelancers
- 'Apprenticeships' with established professionals

The strategy is funded mainly by Lottery money (allocated by the UK Film Council) and the Skills Investment Fund (a training levy on UK film production, to become mandatory by the end of 2007). Additional funding comes from other sources, including the London Development Agency and the Higher Education Funding Council for England.

The importance of A Bigger Future was recognised recently in a report by the London Assembly, which noted: "It is clear that the implementation of this strategy is of great importance for the London film industry and therefore for London as a whole." Film Friendly London, The Economic Development, Culture, Sport and Tourism Committee, London Assembly, November 2006.

# 5.4 Summary

Many people employed in the core 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>&</sup>lt;sup>17</sup> A Bigger Future - The UK Film Skills Strategy, UK Film Council and Skillset (September 2003).

# 6. Multipliers and linkages with other creative industries

As well as the direct contribution of the core 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 core 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 symbiotic relationship between the film industry and other creative industries, and those linkages are also examined in this chapter.

# **Key Points**

- The core UK film industry helps to support 67,000 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 core UK film industry contributes overall around £3 billion a year to UK GDP, taking into account direct, indirect and induced impacts equivalent to 0.3% of UK GDP.
- For every job supported in the core UK film industry, a further job is supported through indirect and induced multiplier impacts.
- In addition, the showing of UK film on television helps to generate about £115 million of GDP in the TV broadcasting industry.
- The core UK film industry and its employees direct and multiplier contribution to UK tax revenues was over £855 million in 2006.
- The core UK film industry has synergies with a wide range of other creative industries.
   Writers, actors, directors and others involved in production obviously work in a variety of other media. And two-thirds of firms involved in the film industry in the UK also work in at least one other screen industry.
- But there are also important spillovers from technical developments in the film industry to other media – most notably, computer imagery developed for films has been used to great effect in TV programmes and commercials.

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

The multiplier for the core UK film industry is estimated to be around 2.0. This means that for every 10 jobs directly supported by the core 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 core 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 derived from a detailed survey of firms in the UK film industry by Optimat/CE<sup>18</sup>, which asked companies about their turnover, employment, wage costs and profits, and also about how much they spend buying goods and services from their suppliers. It is a 'combined' multiplier impact representing the sum of the so-called 'indirect' and 'induced' impacts of the core UK film industry on the UK economy. In particular, it includes both the employment/value added of the sectors in the supply chains of the core 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 core UK film industry.

A similar estimate of the multiplier for the core UK film industry can be derived from the Annual Business Inquiry (ABI) conducted by the ONS<sup>19</sup>. This shows that in 2005 spending on goods and services from suppliers by the film and video production sector (SIC 92.11) was £989 million compared with the sector's gross value added (GVA) of £1,315 million. Similarly, purchases from suppliers by the film and video production sector (SIC 92.12) was £1,182 million compared with GVA of £1,291 million; while purchases by the film exhibition sector (SIC 92.13) were £403 million compared with GVA of £830 million. Clearly, some of these purchases will be from foreign-based suppliers, so will not contribute to UK GDP and employment. However, allowance also needs to be made for the induced multiplier associated with spending by workers employed in the film industry. Estimates based on Oxford Economics' detailed econometric model of the UK economy suggests that the induced multiplier is 1.25 – ie every 10 jobs in the film industry support a further 2.5 jobs in the rest of the economy as workers spend their earnings on other goods and services. Combining the information on the indirect multiplier from the ABI and the induced multiplier from the Oxford Economics model suggests that the multiplier for the core UK film industry is consistent with the Optimat/CE estimate for the UK film industry as a whole.

Comparisons of multipliers across sectors are complicated by the outdated data published by the Office for National Statistics (ONS)<sup>20</sup>. However, analysis of these data suggests that the film multiplier is lower than the economy average and is comparable with, for example, hotels, catering, pubs etc; computer services; and legal services.

<sup>&</sup>lt;sup>18</sup> Economic impact of the UK Screen Industries, Optima/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.

<sup>&</sup>lt;sup>19</sup> See The Contribution of the Film Industry to UK GDP, Cambridge Econometrics, June 2007

The latest published data refer to 1995 and only cover the indirect impacts.

Table 6-1: Examples of multipliers in other sectors of the UK economy

Sector	Indirect multiplier	Induced multiplier	Total
Electricity production and distribution	2.2	1.25	2.8
Construction	2.1	1.25	2.6
Iron and steel	2.0	1.25	2.5
Motor vehicles	1.9	1.25	2.4
Sports goods and toys	1.9	1.25	2.4
Machine tools	1.9	1.25	2.3
Hotels, catering, pubs etc	1.7	1.25	2.1
Computer services	1.5	1.25	1.9
Legal activities	1.5	1.25	1.9
Education (pt)	1.5	1.25	1.8

Source: ONS, Oxford Economics

# 6.2. Value added and employment

Including direct and multiplier (indirect and induced) impacts, we estimate that the core UK film industry supported around 67,000 FTE jobs in 2006 with a value added contribution to GDP in the region of £3.0 billion. This is equivalent to 0.3% of UK GDP.

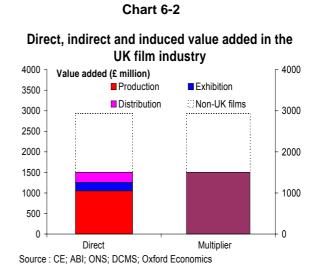
This impact comprises:

- **Direct** employment in the core UK film industry of around 33,500 FTEs in 2006, contributing value added of £1.5 billion to GDP in the UK economy.
- Multiplier employment in other industries of 33,500 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 £1.5 billion in 2006.

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 60000 60000 **Employment** \_Non-UK films Self-employment
Distribution
Exhibition 50000 50000 Production 40000 40000 30000 30000 20000 20000 10000 10000 0 0 Direct Multiplier

Source: CE; ABI; ONS; DCMS; Oxford Economics



# 6.3. Linkages between the core UK film industry and other creative industries

The core UK film industry is part of the broader 'creative industries' that now account for 8% of the UK economy and are a rapidly expanding sector. Moreover, there is clearly a symbiotic relationship between film and the other creative industries.

These interactions are most obvious in the case of writers, actors and directors who also work in, for example, the theatre, TV and commercials – for example, both Dame Judi Dench and Dame Helen Mirren enjoy successful TV and theatre careers, as well as working in film; similarly, Sam Mendes has directed both stage and film productions; and Alan Bennett has written scripts for TV and radio, as well as for the stage and for film. Similarly, not only have many successful TV series or plays been made into films - as in the case of, for example, *Mr Bean* and *The History Boys* – but films represent a significant proportion of television programming and some have become successful stage plays, such as *Billy Elliott* and *The Full Monty*.

But the relationship between film and other creative industries is much deeper than even suggested by these examples. Most of the companies involved in the core UK film industry are also involved in other creative industries and are dependent on both to provide a sustainable revenue stream. This multisectoral involvement also means that the fixed costs of infrastructure and studios are shared, enabling economies of scale and economies of scope to be better exploited. (See Box 6-1 for a case study analysis of such links with other sectors.)

The involvement of firms in the core UK film industry in other creative activities is clearly illustrated by the survey of the UK screen industries undertaken by Optima/CE in 2005. This surveyed 400 companies involved in film, TV, corporate video, commercials/advertising and the interactive media industry. We have analysed the responses to this survey to identify to what extent firms in the film industry only work on film and the extent to which they also work in other screen sectors. Table 6.2 summarises our

findings. It shows that:

- Only 38% of firms in the core UK film industry work only on film.
- 62% of firms in the film industry also work in TV.
- Of these, a little over half work only in film and TV. The others also do a mix of work in commercials and/or corporate video and interactive media.

Table 6-2: Firms in the core UK film industry

- percentage working across audio-visual sectors by region

						Film, TV,	
					Film, TV,	Corporate,	Film & at least one
			Film, TV &	Film, TV &	Corporate &	Commercials &	of the other sectors
Region	Film only	Film & TV	Commercials	Corporate	Commercials	Interactive	but not TV
East Midlands	48.9	23.3	8.9	5.6	8.9	3.3	1.1
East of England	32.9	36.4	13.2	1.8	7.9	6.1	1.8
London	35.9	37.6	11.9	3.0	6.1	3.4	2.1
North East	40.8	25.4	5.6	5.6	9.9	5.6	7.0
North West	41.4	28.5	10.2	3.8	9.1	4.8	2.2
Northern Ireland	32.8	26.6	6.3	4.7	23.4	3.1	3.1
Scotland	48.2	29.5	9.6	3.0	3.0	4.2	2.4
South East	43.5	33.7	8.9	3.6	5.3	3.8	1.2
South West	32.2	37.7	12.0	4.0	9.1	3.3	1.8
Wales	36.0	42.7	6.7	2.0	6.7	3.3	2.7
West Midlands	37.0	35.6	8.1	5.2	8.9	3.7	1.5
Yorkshire & the Humber	51.7	32.2	5.7	0.0	8.0	2.3	0.0
UK	37.6	35.5	10.7	3.2	7.2	3.7	2.1

Source: Optima/CE, Oxford Economics analysis

There are other synergies between the core UK film industry and other creative industries. An important one is technology transfer. The film post-production sector in the UK, for example, has developed a number of techniques in computer-generated imagery (CGI) initially for use in films that have then found application in TV and other media. For example :

- **Thunderbirds** The so-called Houdini particle tools that the *Thunderbirds* team developed to help in the creation of rain and smoke effects in the 2004 film have since been used to help create an avalanche effect for a Fiat commercial, as well as playing a role in a Guinness spot.
- Harry Potter The investment generated by the Harry Potter films enabled Framestore CFC to make significant investment into new CGI technology. This technology was then offered to the BBC at a far lower rate than would otherwise have been possible so that they could make Walking with Dinosaurs. The investment in the equipment was originally made possible by work generated by a US studio but ultimately enabled the BBC to produce a widely acclaimed TV series which enhanced the BBC's international reputation and also generated considerable income for the Corporation.
- The MPC 'Cantilever' System As part of MPC's work for Harry Potter and the Chamber of Secrets, it needed to bring to life the Whomping Willow a key character situated in the grounds of Hogwarts School for Witchcraft and Wizardry. A solution needed to be found to ensure that the tree's branches and leaves reacted in a life-like manner to external stimuli such as wind and turbulence. To do this,

MPC developed a physics-based model which could reconstruct the dynamic effects of such factors and still retain a natural look. The software subsequently transferred between divisions when it was used to manipulate trees for a national Tetra Pak ad.

• ALICE - ALICE was created as a response to the 'off the shelf' crowd simulation packages. MPC R&D spent nearly 3 years researching and developing the program which creates lifelike high-end crowd simulation. Initially developed to create over 150,000 rampaging soldiers for Wolfgang Petersen's *Troy*, it has been further developed to incorporate mounted infantry in *Kingdom of Heaven*, - a significant development allowing the creation of multi-pedal computer generated agents. The software has cross-fertilized into the MPC commercials division where it has been used, for example, to re-create the Rio Carnival for a mobile telephone ad. MPC were in the happy position of being able to offer this high end software solution to the UK commercials industry, at a lessened price, as both risk and R&D costs were underwritten during development for the features industry

These examples illustrate the benefits of investment by firms in the core UK film industry – often spurred by work for inward investment films – for other creative industries, enhancing the competitiveness of the UK creative industries sector as a whole.

# 6.4. Economic impact from film on TV

2,011 films were shown on terrestrial channels in 2006, equivalent to an average of 5.5 films per day. Of these 438 (22%) were UK films, and 41 (2%) were foreign language films. Based on a model developed by DGA Metrics, the UK Film Council has estimated the value of feature film to UK broadcasters to be approximately £1.07 billion in 2006. This figure is derived from the annual revenue per channel - ie net advertising revenue for the commercial channels, subscription revenues for the pay TV channels and proportion of licence fee applied to television programmes on the BBC channels multiplied by the percentage of broadcast hours for feature film.

Of this £1.07 billion, around £235 million could be attributed to the core UK film industry on the basis of the proportion of films shown on TV that are UK films. However, about half of that contribution is already included in our estimates of the direct impact of the core UK film industry, which takes account of revenue from TV broadcasting rights. We therefore estimate that UK film helped to generate about £115 million of GDP in 2006 by supporting the TV industry.

## 6.5. 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 £420 million<sup>21</sup>. Overall, the total tax contribution – including

<sup>&</sup>lt;sup>21</sup> The tax multiplier is applied to income tax, national insurance and corporation tax, with an allowance for the tax associated with the use of film on TV. No tax multiplier is applied to VAT and the withholding tax (see Appendix for a more detailed discussion).

direct, indirect and induced impacts – to the Exchequer was £856 million in 2006.

Table 6-3: Estimates of the total tax contribution, 2006

Impact	£ million
Direct	436
Multiplier	420
Total	856

Source: Oxford Economics estimates

# 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 75 year history the constituent companies have handled over 1,500 films. Facilities at both sites include 35 stages, 10 television studios, water filming facilities, audio post facilities, preview theatres, backlots, manor houses, and gardens and woodland.

Turnover of £40.7 million in 2006 was generated by the company, of which the majority originated from the film sector. 'Film Stage Services' revenues of £22.6 million accrued from productions including *Atonement, The Bourne Ultimatum, Casino Royale, Children of Men, Eragon, Fred Claus, His Dark Materials: The Golden Compass(New Line), Inkheart, Stardust, United 93 and Sweeney Todd.* 

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 Services (£11.8 million), and Media Park income (£6.3 million) through activity in 2006 on commercials and pop promos, and on TV dramas or specials including *The Amazing Mrs Pritchard, Miss Marple, The Vicar of Dibley, Last of the Summer Wine, Live Girls, Extras* and *Primeval*. 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>22</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.

In 2006, over 280 businesses were located on the Media Park.

<sup>&</sup>lt;sup>22</sup> Economic Impact Evaluation of Shepperton Studios, DTZ Pieda Consulting (March 2005).

# 6.6. Summary

The contribution of the core UK film industry from direct and multiplier impacts is estimated to be around 67,000 FTE jobs, with a value added contribution to GDP in the region of £3.1 billion.

The core 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 media – go much deeper than just a supplier relationship. The core UK film industry also has a symbiotic relationship with a wide range of other creative industries, both as those who work in film also work in TV, theatre, commercials etc and as technical developments in the film industry are transferred to other media.

# 7. Tourism

## 7.1. Introduction

The phenomenon of films encouraging viewers to visit the country or site where they were shot - variously labeled 'movie-induced tourism' (Riley et al. 1998), 'film-induced tourism' (Beeton, 2005), and 'media-related tourism' (Busby and Klug, 2001) – has been widely discussed in academic literature and is now well-documented. For example:

"Just as paintings whetted the appetite of tourists in the eighteenth and nineteenth centuries to visit particular places, so film has become the modern-day equivalent for the tourist<sup>23</sup>."

Many tourism authorities across the world are also aware of the role of film as a catalyst for tourism and have strategies that both actively encourage the shooting of films in their country or city as well as the promotion of tourism following the release of such films. A good example is Illinois, which enticed the film A Thousand Acres to be shot there despite other locations better meeting the film's requirement for "fields of corn as far as the eye could see". The Illinois Tourism Board achieved this by suggesting that hybrid varieties of corn could be planted to simulate an entire growing season in just 6 weeks. Similarly, 'Movie Maps' are being increasingly distributed by tourism authorities to make it easy for tourists to find the locations of scenes shot in famous films, such as James Bond and Harry Potter. The recognition of the importance of film to tourism is further underlined by the recent US advertising campaign which sought to encourage UK visitors with the slogan: "You've seen the movies, now see the set". And tourist operators also recognize the role of film in attracting visitors, with, for example. Both Paris's Le Meurice and Edinburgh's The Balmoral hotels now offering Da Vinci Code packages.

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**

- The impact of film on tourism is well-documented through a number of case studies and is recognised in the marketing campaigns of tourist boards around the world.
- While there is limited robust statistical data quantifying the value of this impact, the available evidence suggests around 1 in 10 visits to the UK may be attributed to the impact of UK films.
- On this basis we estimate that around £1.8 billion of visitor spend a year might be attributable to UK films.
- In 2006, this additional spending is estimated to be worth £900 million to UK GDP and £200 million to the Exchequer.

<sup>&</sup>lt;sup>23</sup> Source: Bolan cited in Bushe, A Projecting a Cinematic Boost for Tourism, The Newsletter, 13th June 2005, p.4

## 7.2. Channels of impact

There are a number of channels through which film can affect tourism. The most direct is the promotion of trips to specific sites where films were shot. However, the role that films play in promoting a country or a region rather than a specific shoot location is also important. Films not only generate interest in a country but also act to remind people about what the country has to offer - for example by showcasing scenery and the cultural offer. Indeed, just as product placement of cars, computers, jewellery and so on in films and television programmes has grown, it is not surprising that 'places' are also being featured in film on the same basis. According to Miles Morgan, Thomson's Marketing Director, with "films effectively acting as 'virtual brochures', they can do much more for bookings than a large scale advertising campaign"<sup>24</sup>.

The overall impacts that film makes to tourists' choices of destination can be significant. For example, in the Britain, according to research conducted by Thomson Holidays, more than 80% of Britons plan their holidays after seeing a location on the big screen. And one in five admits to having made a pilgrimage to a destination they've seen on film.

# 7.3. Global examples

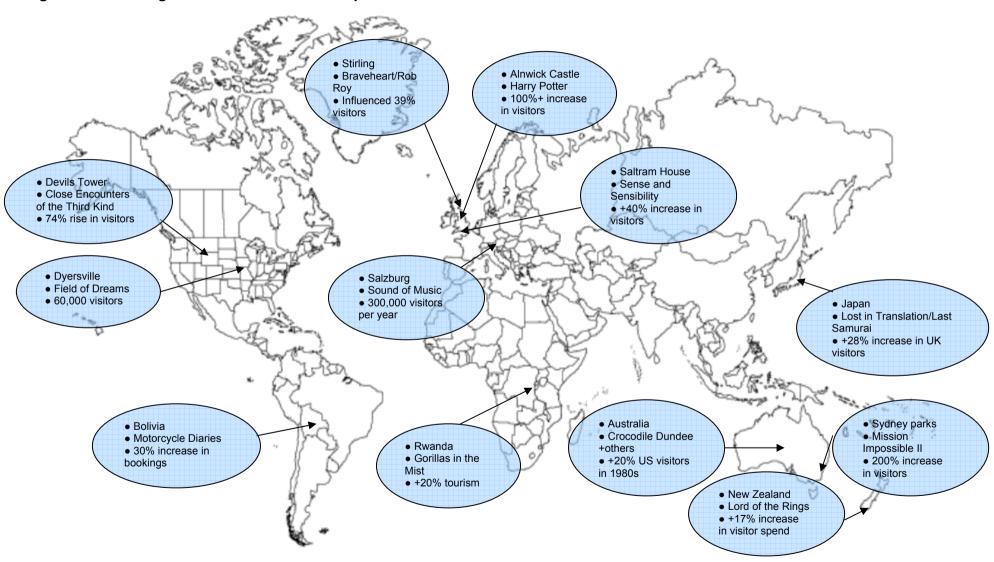
There are many case studies from around the world demonstrating the impact that a film has had on visitor numbers either to a specific shoot site or more generally to the country in which the film was shot or that it represented (see Figure 7-1). Perhaps the longest running example is the Hollywood classic *The Sound of Music*. Even 40 years after the film's release, an estimated 300,000 fans visit Salzburg every year on the strength of the musical, with 40,000 taking the official *Sound of Music Tour*.

Other examples of substantial numbers of tourists visiting sites where film have been shot include Devils Tower in the USA which saw a 74% rise in visitor numbers the year after *Close Encounters of the Third Kind* was shot there; Dyersville in the USA which has 60,000 visitors a year after it was featured in *Field of Dreams*; and the public parks in Sydney which saw visitors triple after it was used for some scenes in *Mission Impossible II*.

Similarly, New Zealand - which has become synonymous with Tolkein's 'Middle Earth' - experienced a 17% increase in visitor spend the year after the release of *Lord of the Rings*; Rwanda and Bolivia experienced significant increases in tourist numbers following the release of *Gorillas in the Mist* and *Motor Cycle Diaries* respectively; *Lost in Translation* and *The Last Samurai* have recently helped to popularise Japan as a tourist destination; and there is evidence that *Crocodile Dundee*, and other Australian films released around the same time, boosted visit to Australia in the 1980s.

<sup>&</sup>lt;sup>24</sup> Source: TRI – Tourism: Keeping up with the Indianna Jones

Figure 7-1: Twelve global illustrations of the impact of films of tourism



# 7.4. UK examples

But it is not just the rest of the world that benefits from film tourism - so does the UK. For example, Alnwick Castle more than doubled its visitor numbers following the release of *Harry Potter*, Burleigh House saw a 20% increase in visitor numbers following its use in *Pride and Prejudice*, there were 26% and 33% rises in visitor numbers to Lincoln cathedral and Rosslyn Chapel respectively following the release of *The Da Vinci Code*. Films such as *Bend it Like Beckham* raised the profile of the UK in the Far East and films like *Kabhi Kushi Kabhie Gham* have helped raise awareness of the huge potential for Bollywood tourism. And the *James Bond* films have enhanced the image of the UK overseas for many years. *Shakespeare in Love* has helped to raise interested in Shakespeare plays and films like *Gosford Park* have increased interest in historical houses in the UK.

Although it is difficult to extrapolate the results from anecdotal examples to calculate the overall impact of UK films on visitor numbers to the UK, these case studies do represent a considerable body of evidence supporting the view that the effect is substantial.

Tourism authorities in the UK are aware of this potential and currently seek to exploit it thought campaigns such as the production of Movie Maps. These maps highlight the locations of sites used in films shot in the UK. For example, there have been maps based around *Master and Commander*; one linked to *King Arthur*. Currently it is possible to download movies maps for *Match Point*, *Closer*, *Bridget Jones*, *Love Actually* and *Thunderbirds* from the Film London website. Similarly, 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. There are also dedicated websites where you can download Movies Maps for *Miss Potter* (Lake District) and for *Pride and Prejudice* (Lincolnshire, Derbyshire and the Peak District).

The Movie Maps have been hugely successful. A questionnaire sent to a random sample of those requesting a copy of one of VisitBritain's 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. And as many as 87% said the Movie Map had encouraged them to visit different parts of England that they had not previously considered. In total, the results showed a 92:1 return on the investment in the Maps themselves as they generated an incremental £2.3 million estimated spending, which made the Movie Map campaign the most effective ever managed by England Marketing. This success has encouraged the most recent development of a map featuring dozens of the locations used by directors of 30 Bollywood hits to attract more Indian tourists to London and the rest of UK.

#### 7.5. How much is film tourism worth to the UK?

It is clear that there is a well-documented impact of film in encouraging tourism. However, the overall value of this contribution to the UK economy is not something that has often been quantified. Total tourism spending by the 32 million overseas visitors to the UK amounted to £15.4 billion<sup>25</sup> in 2006, and this is estimated to have directly supported 160,000 jobs<sup>26</sup>. But how much of that tourism activity can be attributed to UK films?

In our 2005 report, on the basis of extrapolating results from detailed case studies that assessed the impact of two particular films, we estimated the impact of UK film on tourism may have risen from £400 million to £1.6 billion over the proceeding decade. These figures equate to between 4% and 12% of the value of total international tourism.

A study by Riley, Baker and Van Doren (1998), in which they review the impact of 12 US films on visits to specific locations of attractions popularised by the films, provides statistical evidence on the value of the impact of film on tourism. They examine data on visits to each site for ten years prior to a film's release and, where available, for five years following the release. Their results are presented in Figure 7-2. They show that there is a statistically significant difference<sup>27</sup> between the increases in visitors that a location experiences and what might have been expected by extrapolating previous trends in visitor numbers. They conclude that "...the span of movie inducement lasted for at least 4 years and increased between 40 and 50%."

Taking the anecdotal evidence and the results of Riley *et al* presented in Figure 7-2 perhaps suggest that the estimate of the impact of film tourism in our 2005 report is conservative. However, the 12 movies in the Riley *et al* study where chosen specifically because they were a box office success and the movie had an icon clearly associated with an accessible destination. This implies that they are exactly the type of films that will have the greatest impact on tourism and so cannot be considered as representative of all movies. Given this, we consider the figure used in our previous report to be a reasonable estimate of the impact. However, we would recommend that primary research is undertaken in the future to provide the robust statistical evidence required to verify these estimates.

<sup>&</sup>lt;sup>25</sup> Source: ONS travel and tourism statistics

<sup>&</sup>lt;sup>26</sup> Source: Oxford Economics estimate based on share of overall tourism demand in the UK (derived from WTTC 2006 Travel & Tourism Economic Research).

<sup>&</sup>lt;sup>27</sup> Significant at the 95% level

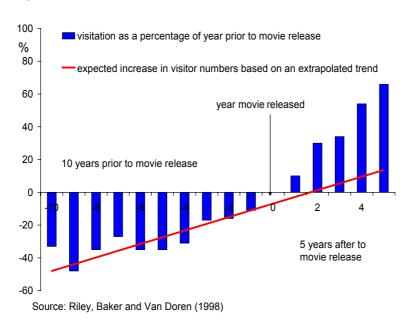


Figure 7-2: Impact of movie releases on visitation to public parks and private attractions (median of 12 sites)

Using the results from our previous report and applying them to the latest tourism statistics, we estimate that the impact of the UK film on tourism could have been as much as £1.8 billion of visitor spending in 2006.

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 (for example, accommodation) will use imported inputs (such as linen and 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 £1.8 billion in 2006 produces a contribution of around £900 million a year to UK GDP and £200 million to the Exchequer (including impacts on air passenger duty).

#### 7.6. Is UK film tourism at risk?

While an estimated £1.8 billion of visitor spending in the UK last year may have been the result of the impact of UK films, that 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 <u>about</u> the UK, even if they were no longer made <u>in</u> 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, as discussed in our 2005 report, 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>28</sup>. And the UK currently benefits from stories originally set overseas being translated to the UK when they are mad into films. For example, *Run Fat Boy Run* was originally written as being set in New York but London has been chosen as the backdrop for the film, with significant help and support from Film London.

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.

# 7.7. Summary

Around one in ten foreign visitors to the UK probably come as a result of seeing the country depicted in film. And in 2006, as a result of their spending, around 20,000 jobs were supported in the UK, contributing an additional £200 million to the Exchequer and £900 million to GDP. And with the success of films like *The Queen* at this year's Oscars - where Dame Helen Mirren won the Oscar for best actress in a leading role - the future contribution of film to tourism in the UK looks set to increase further in coming years.

<sup>&</sup>lt;sup>28</sup> Source: 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

In a speech on UK culture he made earlier in the year, the former Prime Minister Tony Blair commented "art, more than any programmes of Government, worthy and necessary though those are, can make people consider, see things differently, understand where others come from." Film has the ability to fulfill all of these roles, broadening the audience's knowledge of the world and enriching people's lives. Film also plays an important role in social communications and relationships.

On many occasions, the cultural benefits a film delivers will be open to all. But there are times when the messages of a film speak loudest to those who share its nationality. Indigenous films may help inform British people about who they are, how they fit in to the world and what they share with other nationalities. Successful UK films therefore play an important role in defining our nationality identity and self-confidence. Moreover, they also influence how the nation is perceived abroad.

This chapter explores the cultural benefits of the core UK film industry. It estimates the value that British cinema audiences are willing to pay for the cultural value UK film provides.

## **Key Points**

- The value that people attach to film culture should in part be reflected in box office takings. But
  indigenous film has a number of other facets for example, as a key means of expression of UK
  identity that are likely to mean the total social valuation exceeds box office takings.
- UK films address the social challenges that the country faces in the 21<sup>st</sup> century, including drug addiction, prejudice and race relations.
- Culture also benefits from the educational component of UK films.
- We estimate that the presence of UK films boosts total box office revenues by over £50 million a year. This is one estimate of the cultural value of UK film as shown in cinema.
- Sales and rental of UK films on DVD earned over £350 million in 2006. If the same premium for watching UK films applies in these media, the cultural value of watching UK film may be boosted by an additional £105 million.
- The government is now explicitly recognising the value of culture through the cultural test for identifying whether a film is British.

<sup>&</sup>lt;sup>29</sup> From Tony Blair's (Prime Minister) speech entitled 'Cultural speech at Tate Modern' on 6 March 2007.

#### 8.1. Film and UK culture

Film can affect a country's culture in many ways. The best films can articulate new ideas, forcing the audience to reassess their existing views, assumptions and prejudices. As a mass media, with fewer constraints about impartiality than some television channels, film can also articulate existing ideas and view points. These may reflect society or be a criticism of it. The communication of new and existing ideas can lead audience members to change the way they view the world and their place within it.

As Tessa Jowell, the former Minister of Culture, said recently: "Our culture is critical to the type of country we are." The ability of films to influence culture means that they can influence national identity. A film from any country can potentially shape the UK's culture, but it is more likely that an indigenous film will have such an impact. UK films are much more likely to involve places, people or issues that British people instinctively recognize and value. UK film affects how the British see themselves and how they are viewed by others.

The core UK film industry's ability to influence national identity is the main reason the government seeks to promote the production of culturally British films by providing tax relief. In describing the 2005 change to the cultural test for British films, HM Treasury commented "Cinematic film provides a universal and readily accessible medium for the expression and representation of British culture and national identity. 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. As such, British films are an important part of our cultural heritage and a significant channel for the continuing expression and dissemination of British culture."<sup>31</sup>

Examples of recent UK films that have addressed social issues that are important challenges in the 21<sup>st</sup> century include:

- Trainspotting, which contributes to awareness of the issue of drug addiction and its social costs.
- Billy Elliot, which deals with the issues of prejudice.
- Bend it Like Beckham, which addresses issues of race relations.
- Yasmin, portraying the experience of Muslim communities in the UK.
- In This World, which tells the story of migration from Afghanistan to UK.

UK films' ability to advertise the British brand around the world also has a monetary pay-off. It supports the competitiveness of UK exports (see Chapter 10). It also has an important role to play in attracting people to the UK and supporting inward tourism (as discussed in Chapter 7). It also attracts business, influencing levels of inward foreign direct investment.

There are also public benefits from the educational component of films. For example, since 1985 Film

<sup>31</sup> HM Treasury (2005), 'Reform of film tax incentives: Promoting the sustainable production of culturally British films', July.

From Tessa Jowell's (Secretary of State for Culture, Media and Sport) speech entitled "Valuing Culture" made on 17 June 2003.

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, which may have further positive spin-offs through the encouragement of good citizenship.

These so-called 'externalities' that arise from the characteristics of indigenous film imply that the overall social value of UK film may well exceed the price that consumers pay to see it at the cinema. They also mean that there is a risk that the film industry, which is dominated by US majors, will not produce as many UK films as would be socially desirable. That is a key justification for the Film Tax Relief in the UK.

# 8.2. A monetary estimate of the cultural value of UK film

To see a film at the cinema, an individual has to purchase a ticket. By doing so, the person signals he or she expects to get benefits from viewing the film that are at least as great as the admission price. A movie's box office revenue is therefore a guide to the monetary value of the total benefits the film delivers to the audience. It is a 'guide' as the prospective audience will not have a true view of the satisfaction they derive from seeing the film until after they have seen it. But advertising, trailers and reviews should help inform the prospective audience about the film's contents.

One approach to assessing the value people place on UK film is therefore 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 more details).

We focus here on the subset of films released in both the UK and US between 2000 and 2006. We begin our analysis of UK film-goers' valuation of UK films by looking at how large each film's UK box office receipts are as a share of its US box office earnings. Table 8-1 shows various points in the distribution of all films' UK box office receipts as a share of their US earnings.

We might generally expect each film's UK box office receipts to be a small fraction of what it earns in the US. And this is what the data in Table 8-1 show - the typical film earns in the UK just 15% of its US box office receipts. This is partly because the potential audience in the US is substantially larger than in the UK: there are over 300 million people in US compared to just over 60 million people in the UK. But Americans also typically go the cinema more frequently than British people (5 times a year as opposed to less than 3 times a year).

Table 8-1 also shows how rare it is for a film to earn more box office revenue in the UK than in the US. In only 10% of cases<sup>32</sup> (the 90<sup>th</sup> percentile in Column 1) does a film earn more this side of the Atlantic.

But Table 8-1 also shows that the probability of a film earning more in the UK than the US changes markedly once the country of origin of the film is taken into consideration. For foreign films, the probability is very small: in only 5% of cases has a foreign film earned more box office revenue in the UK than in the

<sup>&</sup>lt;sup>32</sup> The cells shaded grey indicate where films earn more at the UK box office than the US box office.

US (the 95<sup>th</sup> percentile in Column 2). But for UK films, the probability increases markedly. For all films where there was some UK involvement, 30% (the 70<sup>th</sup> percentile in Column 3) earned more in ticket sales in the UK than in the US. And for films which were solely UK productions (as opposed to a co-production between the UK and another country or countries), the proportion earning more money in the UK than the US increases to 55% (45<sup>th</sup> percentile in Column 5).

Table 8-1: Films' UK box office receipts as a proportion of its US box office receipts (2000-06)<sup>1,2</sup>

Sources: UK Film Council and Oxford Economics.

Selected points in the distribution of UK box	UK earnings	rnings split by country of origination			
office receipts for a film as	relative	Non-UK		UK films	
a proportion of its receipts in the US	to US earnings	films	Total	Of wh	
	for all films			UK co- productions	UK domestic
	Col. 1	Col. 2	Col. 3	Col. 4	Col. 5
Minimum	0.00	0.00	0.01	0.01	0.05
5 <sup>th</sup> percentile	0.01	0.01	0.03	0.03	0.14
10 <sup>th</sup> percentile	0.02	0.02	0.08	0.06	0.21
15 <sup>th</sup> percentile	0.04	0.03	0.11	0.09	0.24
20 <sup>th</sup> percentile	0.05	0.04	0.14	0.13	0.48
25 <sup>th</sup> percentile	0.06	0.06	0.16	0.14	0.58
30 <sup>th</sup> percentile	0.08	0.07	0.21	0.16	0.74
35 <sup>th</sup> percentile	0.10	0.08	0.25	0.21	0.89
40 <sup>th</sup> percentile	0.11	0.10	0.30	0.25	0.99
45 <sup>th</sup> percentile	0.13	0.11	0.34	0.30	1.33
50 <sup>th</sup> percentile (median)	0.15	0.12	0.41	0.33	1.45
55 <sup>th</sup> percentile	0.17	0.14	0.52	0.37	1.61
60 <sup>th</sup> percentile	0.19	0.16	0.63	0.47	1.87
65 <sup>th</sup> percentile	0.23	0.18	0.78	0.57	2.28
70 <sup>th</sup> percentile	0.28	0.21	1.04	0.70	3.04
75 <sup>th</sup> percentile	0.36	0.25	1.43	0.98	3.63
80 <sup>th</sup> percentile	0.48	0.32	1.76	1.19	6.92
85 <sup>th</sup> percentile	0.69	0.43	3.40	1.81	16.16
90 <sup>th</sup> percentile	1.19	0.65	5.28	4.38	31.17
95 <sup>th</sup> percentile	3.05	1.39	14.64	7.14	129.33
Maximum	1401.55	121.13	1401.55	143.56	1401.55

<sup>&</sup>lt;sup>1</sup> In common currency (sterling).

These results suggest that UK cinema-goers have a greater propensity to watch UK-made films than their US counterparts. To isolate the extent to which UK films' better performance at the UK box office is due to domestic audiences' preference for indigenous films, we have undertaken some econometric analysis, updating an exercise reported in our 2005 study. This is explained more fully in Box 8-1.

Our analysis seeks to identify whether the UK box office receipts for a film are statistically significantly

<sup>&</sup>lt;sup>2</sup> Cells shaded grey where UK box office receipts exceed US box office receipts.

higher for UK films compared with foreign films. In conducting this analysis, it is necessary to take account of the fact that films differ in popular appeal - it is difficult to be sure when looking for the effects on box office revenue of indigenous films whether this is simply because particular films have more widespread popular 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 US then this may be taken as some evidence that that particular film might also be expected to perform well in the UK.

Our results suggest that a film's box office receipts in the UK will be 30% higher than otherwise would be the case given its general appeal if it is UK-made. Most of this extra premium can be expected to reflect the 'cultural' value domestic cinema audiences place on seeing a UK production.

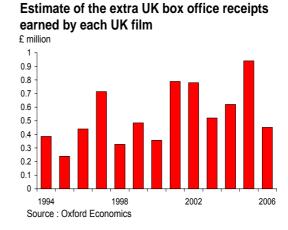
Applying this premium to the total box office revenue for UK films each year allows us to derive an annual estimate of the private cultural value of UK films. Chart 8-1 shows this measure of additional private cultural value of UK film ranges between £29 million and £84 million a year between 2000 and 2006. Over the seven years as a whole, it averaged £53 million per year. This equates to an average of £637,000 per UK film since the turn of the Millennium (Chart 8-2).

Chart 8-1

earned by UK film
£ millions
90
80
70
60
50
40
30
20
1994
1998
2002
2006
Source : Oxford Economics

Estimate of the total extra UK box office receipts

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 £53 million earned by UK films on account of being indigenous means that VAT receipts from cinema ticket sales might be around £8 million higher than otherwise. Further, the extra revenue from UK films implies that employment in the film distribution and exhibition industries may be around 500 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 £20 million a year.

After theatrical release, audiences can also see films through DVD rental and sales. In 2006, the value of

the rental market for films was £340 million, of which UK films accounted for about £57 million (17%). Sales of DVDs of feature films in 2006 earned £1,556 million, of which UK films accounted for £296 million (19%). If the 30% premia for UK films holds for these media, the cultural value film-watchers place on seeing a UK film is worth an additional £105 million a year. In addition, there will be cultural value associated with the showing of UK films on TV.

#### Box 8-1: Further details on our estimation of the cultural value of UK film

To estimate the private cultural value of UK film, we have used data from the UK Film Council's database. This contains information on each film released in the UK. The data recorded include the film's release date, distributor, certificate, country of origin, language and genre. The database also includes financial information on each film's box office takings (to date and on the opening weekend) in the UK and United States. Data are also available on each film's advertising spend in the UK.

#### Regression analysis

Our initial approach is to investigate a statistical relationship between film j's box office receipts in the UK  $(BO_{jUK})$ , its box office receipts in the US in sterling  $(BO_{jUS})$  and a dummy variable taking the value 1 if it is of UK origin  $(UK\ Film_j)$  and zero if from elsewhere. A film's box office receipts in the US  $(BO_{jUS})$  is included to control for its general appeal to cinema audiences. A film's appeal is made up of many attributes including its stars, the director, plot, reviews and ratings, awards etc. This leaves the dummy variable  $UK\ Film_j$  to potentially capture the extra box office revenue UK audiences pay to see an indigenous film.

(1) 
$$\ln(BO_{jUK}) = \alpha + \beta * UK \ Film_j + \delta * \ln(BO_{jUS})$$

A problem with this approach is that if UK audiences have a preference for watching indigenous films, then so might US audiences. If true, the US box office earnings of a UK-made film will understate its general appeal. This is liable to bias the estimates of the  $\beta$  coefficient in Equation 1 upwards. We therefore expand the model by modifying the equation for UK box office receipts and adding another for US ticket sales:

(2) 
$$\ln(BO_{jUK}) = \alpha + \beta * UK \ Film_j + \delta * \ln(UK \ Film_j * \exp(\gamma) * BO_{jUS} + (1 - UK \ Film_j) * BO_{jUS})$$

(3) 
$$\ln(BO_{jUS}) = \varsigma + \gamma * US \ Film_j + \mu * \ln(UK \ Film_j / \exp(\beta) * BO_{jUK} + (1 - UK \ Film_j) * BO_{jUK})$$

The objective of this system of equations is to the adjust box office revenue of each film to reflect its general appeal, ignoring each country's audiences' preference for indigenous films. The US box office receipts for UK-made films in Equation 2 are therefore scaled upwards by the premia US audiences pay to see US-made films ( $\gamma$ ). Similarly, the UK box office receipts of UK-made films are adjusted downward in Equation 3 by the premia ( $\beta$ ) UK audience pay to see an indigenous film.

We then sought to improve on the performance of Equations 2 and 3 by introducing a number of other variables. Robertson (2003)<sup>33</sup> finds that the size of advertising spend promoting a film has a significant impact on the revenue it earns at the box office. We therefore include the value of a film's advertising in the UK in Equation 2. We also experimented with dummies for ten film genre types (taking the value 1 if a film was, for example, a comedy, and zero otherwise). Virtually all of the film genre type dummies proved statistically insignificant and we therefore dropped them from the final specification.

Our preferred equation is shown below. Its' overall performance is good, being able to explain three-quarters of the variation in films' box office receipts in the UK. It confirms that cinema audiences are prepared to pay more to see a film produced domestically. The  $\beta$  coefficient, which is statistically significant, suggests that UK films' box office receipts are around 30% higher than if the same film was made elsewhere.

# UK Box Office Revenues (2000 to 2006)

Dependent Variable: log(BO<sub>iUK</sub>)

	Coefficient	Std. Error	t-Statistic	Prob.
α	1.5	0.2	7.5	0.0
β	0.3	0.1	3.5	0.0
δ	0.4	0.0	20.3	0.0
γ	2.0	0.1	23.6	0.0
λ	0.5	0.0	23.6	0.0

 $\ln(BO_{jUK}) = \alpha + \beta * Film \ UK_{j} + \delta * \ln(Film \ UK_{j} * \exp(\gamma) * BO_{jUS}) + (1 - Film \ UK_{j}) * BO_{jUS}) + \lambda * \ln(Advertising \ Expenditure_{j})$ 

Observations: 1470

where:

R-squared	0.76	Mean dependent var	13.17
Adjusted R-squared	0.76	S.D. dependent var	2.35
S.E. of regression	1.15	Sum squared resid	1952.01
Durbin-Watson stat	1.87		

<sup>&</sup>lt;sup>33</sup> Robertson, T, (2003), 'Advertising effectiveness in UK film distribution', A report for the UK Film Council, September.

#### 8.3. Other evidence on the cultural value of UK film

Looking at box office revenue data therefore suggests that films with 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 so-called 'consumer surplus' — where consumers value a service more highly than the price they have to pay for it - 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 core 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 core UK film industry in that it provides a key outlet for UKoriginated cultural content. The Corporation undertook a contingent valuation study<sup>34</sup> 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>35</sup> looked at the benefits that the Australian community derived from having the mandatory transmission of Australian-originated programmes on their television

Fauth, R, Horner, L, Mahdon, M and Bevan, S, (2006), 'Willingness to pay for the BBC during the next Charter period: A report prepared for the Department of Culture, Media and Sport', September.

35 Paparetree F, (1900), 'Millian report to the Culture, Media and Sport', September.

<sup>&</sup>lt;sup>35</sup> Papandrea, F, (1999), 'Willingness to pay for domestic television programming', Journal of Cultural Economics, Vol. 23, No. 3, pages 147-164, August.

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<sup>36</sup> 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>37</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.

### 8.4. Conclusion

Our estimates suggest that, on average, the presence of UK films boost UK cinemas' box office receipts by over £50 million a year over-and-above the level we would expect if all films shown were foreign made. This is equivalent to 6.9% of UK cinemas' total gross box office receipts in 2006. It provides an estimate of the monetary value UK audiences place on watching movies at the cinema which inform them about some aspect of UK culture. If those that rent and buy DVDs of feature films pay the same premium to watch an indigenously produced film at home, the cultural value of UK film could increase to over £160 million a year.

In addition, the core UK film industry generates a range of wider cultural benefits, through, for example, improved understanding of British life and education.

Delaney, L and O'Toole, F (2004), 'Irish public service broadcasting: A contingent valuation analysis', Department of Economics mimeo, University of Dublin.

37 Finn A McFadven S and Hocking C (2003), 1/(-1/4787 the Co. 11/4 5 C 11/4 5 C

<sup>&</sup>lt;sup>37</sup> Finn, A, McFadyen, S and Hoskins, C, (2003), 'Valuing the Canadian Broadcasting Corporation', Journal of Cultural Economics, Vol. 27, No. 3, pages 177-192, November.

# 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 film industry makes to the UK 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 core UK film industry in Chapter 4. For example, revenues from DVD sales, and to a lesser extent DVD 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 in the retail sector - was about £345 million in 2006.
- DVD sales were worth about £135 million, DVD rentals were about £45 million, soundtrack
   CDs were about £10 million and sales of related computer/video games were about £60 million.
- These sales supported about 7,000 jobs in 2006, contributed about £235 million to UK GDP and £105 million to the Exchequer.

#### 9.1. **DVDs**

The film industry earns more through sales and rentals of DVDs (and videos) 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 DVD 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 core UK film industry.

The average person buys more DVDs than cinema tickets. Cinema admissions in 2006 averaged 2.6 per head of the population, whereas DVD purchases averaged 3.8 per head. Since films account for about 72% (by volume) of the video/DVD market, this implies that on average each person bought 2.7 film DVDs in 2005.

With the overall retail market for DVDs/videos worth £2.16 billion pounds in 2006 (99% of it DVDs), sales of film DVDs are likely to have been at least £1.55 billion (more if the average price of a film exceeded the average price of other types of DVDs). UK films accounted for approximately 19% of DVDs film sales, so the value of sales of DVDs of UK films was about £295 million in 2006. A significant proportion of the top twenty best-selling films in 2006 were UK films (Table 9-1).

Table 9-1: 2006 top 20 films (video/DVD retail)

1	Pirates of the Caribbean: Dead Man's Chest	Non-UK
2	Harry Potter & the Goblet of Fire	UK (with USA)
3	The Chronicles of Narnia -The Lion, the Witch and the	Non-UK
	Wardrobe	
4	Wallace and Gromit: Curse of the Were Rabbit	UK
5	Nanny McPhee	UK (with USA)
6	King Kong	Non-UK
7	High School Musical	Non-UK
8	The Da Vinci Code	UK/USA
9	Ice Age 2: The Meltdown	Non-UK
10	Cars	Non-UK
11	Over the Hedge	Non-UK
12	Deal or No Deal : DVD game	Non-UK
13	Pirates of the Caribbean: The Curse of the Black Pearl	Non-UK
14	Pride & Prejudice	UK (with USA)
15	X-Men 3: The Last stand	Non-UK
16	March of the Penguins	Non-UK
17	Walk the Line	Non-UK
18	The Shawshank Redemption	Non-UK
19	The Corpse Bride	UK (with USA)
20	Batman Begins	Non-UK

Source: BVA/Official UK Charts

A proportion of this revenue is already captured in our estimates of the direct contribution of the core UK film industry. We estimate that 55% of DVD/video sales<sup>38</sup> are counted already in the direct impact, so this means that additional merchandise sales in the retail sector amounted to about £135 million in 2006.

DVDs of films also generate significant economic activity through the rental market, which was worth £340 million in 2006. Films account for 99% of the DVD rental market, and UK films account for 17% of rentals.

We estimate that one-quarter of the DVD rental revenues are already counted in the direct impact. This is a somewhat lower figure than the 55% for DVD sales. 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/high margin business, whereas retail is a high turnover (derived from high footfall) but low margin business<sup>39</sup>. A rental outlet is also likely to account for a proportionately greater part of the total cost involved in getting the

<sup>&</sup>lt;sup>38</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.

39 See 'Brand Health Check: Blockbuster', Marketing 8 Jun 2005.

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 17% share for UK films in rentals, implies that additional merchandise rental sales from UK films amounted to about £45 million in 2006.

Taken together, the combination of both retail and rental of DVDs of UK films generated sales of £180 million in 2006. In terms of value added, this implies a contribution to UK GDP of around £130 million, and the activity associated with this is estimated to have employed around 3,500 people.

#### 9.2. Soundtracks

Sales of original-film soundtracks make up a relatively small part of the market for recorded music. But since the overall retail market was worth around £1.8 billion in 2006<sup>40</sup>, this still amounts to an appreciable level of spending.

The bpi estimates that soundtracks made up 1.6% of all album sales in 2006, and (assuming the average price is similar for film soundtracks as for other albums) this amounts to £29 million worth of sales. A share for the core UK film industry of 19% (in line with its share of DVD sales) would imply sales of UK film soundtracks worth £5.5 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 Lion, the Witch and the Wardrobe*, based on the CS Lewis Narnia story; *The Lord of the Rings* trilogy, based on the books by JRR Tolkein; 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*; or, possibly, the recent film of Jane Austen's *Pride and Prejudice*.

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.

OXFORD ECONOMICS

<sup>&</sup>lt;sup>40</sup> Source: IFPI.

#### 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

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 2006 reached £1.36 billion, and the UK video games industry employed, 25,000 people<sup>41</sup>. Data for 2004 suggest films account for 17% of this market<sup>42</sup>, of which the UK film share is 25%. Applying these market shares to 2006 implies sales of about £60 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.

#### 9.7. The overall value of merchandising

Not all aspects of merchandising are easily quantifiable, and in some cases films will stimulate sales of

Source: The Entertainment & Leisure Software Publishers Association (ELSPA).
 Source: 'Chart Track' Annual Report of top 100 leisure software (all formats).

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 distributor.

Film distributors active in the UK typically earn in aggregate about £17 million per year from the sale of licensed film merchandise in the UK<sup>43</sup>. More generally, discussions with companies in the film industry suggest that a successful 'merchandisable' film might generate sales in the UK of around £50 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 £100 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 DVDs, 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 £345 million in 2006, and value added of £235 million. The employment associated with this contribution to GDP amounted to around 6,500 jobs, and £105 million of extra tax revenues were generated through additional VAT, income tax, national insurance contributions and corporation tax.

Merchandising can also have a wider role in promoting the UK. This was acknowledged by the new Prime Minister on a visit to China in 2005 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>48</sup>.

<sup>43</sup> Source: NPD License Tracker

<sup>&</sup>lt;sup>48</sup> Source: Harry's magic strikes home, Scotsman, 15 July 2005

Table 9-2: The value of UK film merchandising in 2006

	Sales	GVA	Employment	Taxes
	(£ million)	(£ million)	('000s)	(£ million)
Video/DVD sales	135	89	2.5	40
Video/DVD rental	45	38	1.0	15
Soundtracks	5	3	0.1	2
Computer/video games	60	40	1.1	18
Other merchandise	100	65	1.8	30
Total	345	235	6.5	105

Source: Oxford Economics 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 core UK film industry generated additional merchandise sales worth around £235 million to UK GDP in 2006.

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 core 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 about £55 million to UK GDP in 2006.

# 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 core UK film industry earns export royalties and fees for the production of films. But there is also a second, 'indirect' effect, because the core 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 £750 million a year since 2000.
- 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 £20 million to UK GDP.

#### 10.2. Direct UK trade in film

The film industry is a significant contributor to UK export earnings. In 2005 (the most recent data) total exports of the film industry were £967 million (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 2005 was only £804 million - so UK film made a healthy net contribution of £163 million to the UK trade position. The average net trade contribution since 2000 is similar to the 2005 figure, at £145 million.

The largest contribution to UK film export earnings comes from royalties, which were £660 million in 2005. Production revenues are also important, however, with exports of over £300 million in 2005 (Chart 10-2). Looking at the geographical split of film trade, the UK has a large net trade surplus in film with Australasia/Oceania and with Asia (Chart 10-3).

1000

800

600

400

200

Exports and imports of film companies £m 1000 Exports 800 600 Imports

400

200

**Chart 10-1** 

1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 Source : ONS

Exports less imports

Indeed, the core UK film industry's share of total UK exports (0.3%) 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:

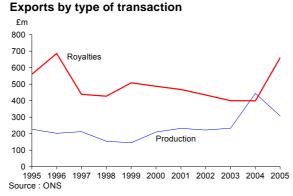
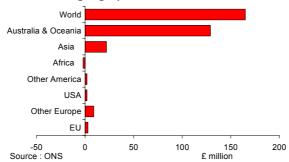


Chart 10-3: Net international film transactions by geographical area, 2005



### 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:

- Ahmed et al (2002)<sup>44</sup> studies the effect of country of origin (CO) and brand effects on consumers' quality perceptions, attitudes, and purchase intentions, finding that country of origin effects were found to be stronger than brand effects for quality and attitude ratings, while brand was more significantly correlated with purchase intentions.
- Verlegh and Steenkamp (2004)<sup>45</sup> found evidence of country of origin effects, through their influence on perceived product quality.
- Heslop et al (2005)<sup>46</sup> found that country image and product beliefs jointly affect product evaluations regardless of consumers' level of familiarity with a country's products. Their findings also indicated that the nature of country image influences product evaluations both directly and indirectly through product beliefs.
- Arpan and Sun (2006)<sup>47</sup> investigated how country-of-origin effects help consumers form impressions of
  countries and their major exports over time. These general evaluations can serve as stereotypes or
  judgement shortcuts invoked by consumers when they consider a product purchase or their attitude
  toward a given product. The study found that evaluations of an organisation and its behaviour were
  based more on overall evaluations of the country in which the organisation was headquartered.
- Verlegh (2007)<sup>48</sup> found evidence of home country bias in product evaluation, in part driven by a need for self-enhancement. This influence is stronger for consumers who identify more strongly with their own country, and is complementary to the effect of consumer ethnocentrism, which provides an economic motivation for home country bias.

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

<sup>&</sup>lt;sup>44</sup> Ahmed Z.U.; Johnson J.P.; Ling C.P.; Fang T.W.; Hui A.K., (2002) International Marketing Review, Volume 19, Number 3, pp. 279-302(24)

<sup>&</sup>lt;sup>45</sup> P.W.J. Verlegh & J.-B.E.M. Steenkamp (1999). A review and meta-analysis of country-of-origin research. *Journal of Economic Psychology*, 20 (5), 521-546.

<sup>46</sup> Laroche, Michel, Nicolas Papadopoulos, Louise Heslop and Mehdi Mourali, "The Influence of Country Image

Structure on Consumer Evaluations of Foreign Products," International Marketing Review, 22(1), 2005, 96-115.

47 Arpan, L. and Sun, H., (2006) The Effect of Country of Origin on Judgements of Multinational Organizations Involved in a Crisis. Journal of Promotion Management Volume: 12 Issue: ¾ pp 189 – 214.

<sup>&</sup>lt;sup>48</sup> P.W.J. Verlegh (2007). Economic and socio-psychological motives for home-country bias in consumer product evaluations. Journal of International Business Studies, 38(3), 361-373.

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.

The role of film and other creative industries in trade promotion is reflected in the part-sponsorship by the Department for Culture Media and Sport (DCMS) of 'China - UK: Connections through Culture' (CtC). This initiative aims to develop further cultural co-operation between the UK and China, including trade ties. Describing the programme, DCMS states that its is: "keen to maximise the impact of [the UK] cultural sector's international work, both in cultural product and public diplomacy...the Connections initiative ...can contribute to the government's broader international priorities."

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 UKbrand 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>49</sup>. And Austin Powers has also been given the credit for booming sales of Minis in North America<sup>50</sup>.

UK trade is likely also to have benefited from the media exposure associated with London's position as a key location for the launching of films. Nine of the top 25 worldwide films since 2001 have been either premiered or co-premiered in the UK.

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: it is estimated that film product placements cost \$885 million in 2006 - equivalent to 3.4% of global box office receipts - and are set to grow by over 20% in 2007<sup>51</sup>. 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 3.4% 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 £5 million extra profits in 2006. With gross trading profits across UK companies averaging about 25% of value added<sup>52</sup>, this implies additional value added of at least £20 million a year.

<sup>52</sup> Annual Business Inquiry, ONS.

Sarah Gilligan (2001) in Engelmeier and Engelmeier, 'Fashion in Film'.
 Daily Mirror, January 2003.
 Source: PQ Media, <a href="http://www.prwebdirect.com/releases/2007/3/prweb511540.htm">http://www.prwebdirect.com/releases/2007/3/prweb511540.htm</a>

# 10.4. Summary

The core UK film industry is a significant contributor to the UK net trade position, with a trade surplus averaging £145 million a year since 2000. 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 £20 million a year.

# 11. The impact of Film Tax Relief

The value of the film industry to the UK culturally and economically was recognised by the government when it reviewed the Film Tax Relief in 2006. This led to the replacement of the previous tax incentives for film (Section 42 and Section 48) that used a sale and leaseback mechanism, which had come to be used by some individuals as a mechanism for tax avoidance.

The new tax incentive is based on an enhanced deduction from taxable income for film production companies that can be converted into a payable tax credit. For UK films with production budgets up to £20 million, the value of the tax relief increases to a maximum of 20% of production costs where 80% or more of the budget is spent in the UK. For films with production budgets of £20 million or more, the maximum value of the tax credit is 16%. To qualify for the tax credit, at least 25% of qualifying expenditure must be spent in the UK. In addition, films must pass a 'cultural test' administered by the Department for Culture, Media and Sport (DCMS), which considers the nature of the film's story, setting, characters and contribution to cultural diversity (see Section 3.2 for more details).

The new film tax relief came into force on 1 January 2007. This chapter considers the importance of the tax credit to the sustainability of the core UK film industry and to achieving the economic and cultural benefits set out in this report.

#### **Key Points**

- The film tax credit is vital to sustaining the competitiveness of the core UK film industry. With
  that tax incentive in place, we expect the UK to attract £800 million a year of inward investment
  productions by 2010, supporting a continuation of the long-term trend expansion of the core UK
  film industry and its contribution to UK plc.
- The film tax credit is important in putting the UK film industry on a level playing field with its competitors, enabling it to generate the economic and cultural benefits highlighted in this report.
- Without the film tax credit, we estimate that the core UK film industry would be around 75% smaller, at a cost of around £1.3 billion of lost GDP a year and about £350 million lower Exchequer revenues. That compares with an estimated cost of the new film tax credit of around £120 million a year.

## 11.1. The rationale for the Film Tax Relief

In reviewing the Film Tax Relief, the Treasury considered carefully the rationale for particular support for the film industry. It noted two main justifications:

• The cultural benefits of UK film – as highlighted in Chapter 8, the Treasury considers that: "Cinematic film provides a universal and readily accessible medium for the expression and representation of British culture and national identity. 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. As such, British films are an important part of our cultural heritage and a significant channel for the continuing expression and dissemination of British culture." Since these cultural benefits are unlikely to be fully reflected in the price that cinema-goers are likely to be willing to pay to see a film, there is potential for a market failure which would result in too few UK films being produced if the government did not provide support to the core UK film industry.

• The economic benefits generated by the film industry - As highlighted in this report, these benefits include not only the direct impacts of the film industry but also the multiplier effects through the supply chain and the role of film in attracting tourists and helping to promote UK trade.

In addition to these factors, we would highlight that the Film Tax Relief can be justified by the absence of a level playing field in the international film industry. Competition to attract film producers to shoot their film in a particular country is fierce. This competition partly focuses on the physical attributes of a country; the costs for labour and the renting of locations and sets; and the relative skills of the film production workforce. But a key element is tax competition. As Appendix A highlights, the use of the tax system to support film production is widespread, including in countries which benefit from low labour and other costs, such as Hungary. Given that the film industry is highly internationally mobile and dominated by the US major studios, the Film Tax Relief is important in levelling the terms on which the UK can compete with other countries in attracting inward investment productions.

Given this context, the Treasury's aims in designing the new Film Tax Relief are:

- Encouraging the production of films that might not otherwise be made;
- · Promoting sustainability in British film production; and
- Maintaining a critical mass of UK infrastructure, creative and technical expertise, to facilitate the production of culturally British films.

# 11.2. The importance of the Film Tax Relief to the competitiveness of the core UK film industry

We have assessed the importance of the Film Tax Relief to the cost competitiveness of the core UK film industry by updating and extending a detailed modelling of the costs of film production in a range of countries undertaken by the UK Film Council in 2005. The Film Council's research suggests that, for high budget films, the costs of production in the US in 2005 were about 12% higher than those in the UK before making allowances for fiscal support, while costs in the Czech Republic were around 19% lower than UK costs. After taking into account the Section 42 support available in 2005, however, (and the

<sup>&</sup>lt;sup>53</sup> HM Treasury (2005), 'Reform of film tax incentives: Promoting the sustainable production of culturally British films', July.

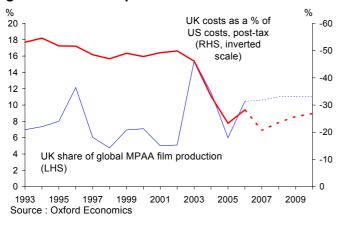
fiscal support available in the Czech Republic) the costs of producing films in the US were over 30% higher than in the UK, while Czech costs were 12-13% lower.

We have extended these competitiveness comparisons by projecting the estimates of cost differentials in 2005 both back over time and forwards to 2010 using Oxford Economics' global forecasts. Our projections are based on the following assumptions:

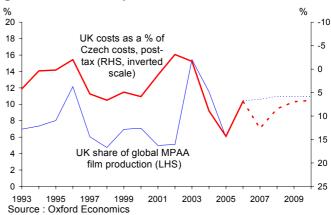
- Production costs in each country are projected on the basis of indicators of average earnings for each country. In the UK, we have used the ONS series for average earnings in the private service sector rather than more specific data for earnings in the film industry, as the latter are very volatile from year-to-year reflecting the small size of the data sample on which they are based. For the US, we have used data for average earnings in the motion picture and video production industry. For the Czech Republic, we have used data for average wages in the recreational, cultural and sporting activities sector. Tests suggest that our results are not particularly sensitive to the use of alternative earnings measures.
- US film costs are assumed to have moved historically in proportion to US average earnings. For the
  UK, we assume film budgets involve 90% UK costs and 10% US costs. For the Czech Republic, we
  assume 38% of the budget is spent locally, 50% reflects US costs and 12% reflects UK costs. These
  proportions reflect the mix of local and non-local costs in the UK Film Council's model of film costs by
  country.
- Movements in exchange rates over time.
- Changes in the value of film tax incentives as a proportion of the production budget for UK films.

Chart 11.1 Chart 11.2

# UK-US relative film costs and UK's share of global MPAA film production



# UK-Czech relative film costs and UK's share of global MPAA film production



Charts 11.1 and 11.2 show the relationship between the measures of post-tax cost competitiveness we

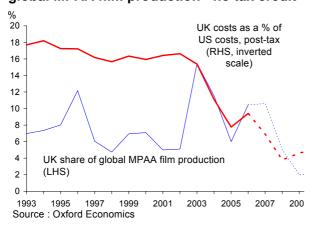
have developed and the UK's share of global MPAA film production. While there are clearly a number of factors that influence the decision of studios over where to locate production for particular films, the charts do suggest that costs factors play an important role. For example:

- The upward trend in the UK's production share in the early 1990s coincided with a period of improving competitiveness, which was then followed by a period when UK costs rose relatively strongly and the UK's production share fell back.
- The Section 42 tax incentives helped to improve UK competitiveness in the late 1990s/early 2000s, and this was followed by the sharp rise in the UK's production share in 2003/4.
- A combination of reduced incentives via Section 42, the marked appreciation of sterling vis-à-vis the
  dollar and uncertainty over the future of film tax incentives in the UK served to undermine the UK's
  competitiveness severely. That was associated with a marked fall in the UK's share of global film
  production in 2004 and 2005.
- More recently, film production has recovered in the UK, supported by the new Film Tax Relief.

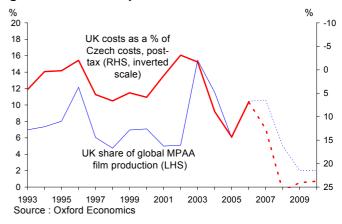
Taking account of the incentives provided by the new Film Tax Relief, our estimates show that the costs of producing a film in the UK are set to fall relative to those in its competitors over the rest of the decade, so that by 2010 UK film costs are expected to be around 27% lower than those in the US and only 7% higher than those in the Czech Republic. On this basis, we expect the core UK film industry to attract around 11% of global film production over the period to 2010, with spend on inward investment productions rising to about £800 million by 2010. This should underpin a continuation of the long-term trend expansion seen in the core UK film industry.

Chart 11.3 Chart 11.4

# UK-US relative film costs and UK's share of global MPAA film production - no tax credit



## UK-Czech relative film costs and UK's share of global MPAA film production - no tax credit



The importance of the Film Tax Relief to supporting the continued success of the core UK film industry is clear when we consider how UK competitiveness would be affected if there were no tax incentives from 2008 onwards. In this case, the UK's cost advantage vis-à-vis the US would fall to 15%. And UK film costs would be almost 25% higher than those in the Czech Republic over the remainder of the decade (Charts 11.3 and 11.4). We estimate that this loss of competitiveness would reduce the UK's share of global film production by around 9% points by 2010, to around 2%. That would be equivalent to a loss of inward investment of about £650 million a year by 2010. In addition, investment in domestic production and co-productions would also be seriously undermined. Overall UK film production might be reduced by at least 75% by the abolition of the Film Tax Relief.

#### 11.3. The economic impact of the abolition of Film Tax Relief

A decline in film production of that scale would have substantial economic effects:

- It would reduce the direct contribution of the core UK film industry to GDP by about £1.1 billion and by £2.25 billion taking account of impacts on the supply chain and on the spending of workers who lose their jobs. Similarly, employment in the core UK film industry would be expected to fall by around 25,000 jobs directly and 50,000 taking account of multiplier effects.
- While many of those currently working in the core 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 £200 million a year.
- Over time, tourism and exports would be undermined as they lose the promotional support provided by UK films.
- In addition, the UK's cultural life would suffer as a result of the loss of UK films.
- Overall, UK GDP would in the medium term be reduced by around £1.3 billion a year.
- These losses in turn would reduce Exchequer tax revenues by about £350 million a year, taking
  account of multiplier impacts and effects on merchandising. That compares with an estimated cost of
  the new Film Tax Relief to HM Treasury of around £120 million a year.

#### 11.4. Conclusions

The Film Tax Relief is vital to the continued success of the core UK film industry in a global environment characterised by stiff tax competition as countries seek to attract inward investment because of the economic and cultural benefits that the film industry generates. The new Film Tax Relief provides the basis for the continued growth of the core UK film industry. Without it, the core film industry would be expected to be 75% smaller, at a cost of £1.3 billion of lost GDP a year and around £350 million a year of lower Exchequer revenues.

## 12. Conclusions – summary of overall impact

This report sets out the contribution of the core 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 core UK film industry in total:

- Supported 95,000 jobs in the UK in 2006.
- Contributed over £4.3 billion to UK GDP in 2006.
- Contributed over £1.1 billion 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 70% of the total, with the remainder of the contribution accounted for by wider impacts such as tourism, trade and merchandising.

Table 12-1: Summary of the economic contribution of the core UK film industry

Channel of impact	Total contribution to UK GDP in 2006	Total contribution to Exchequer revenues	Employment impact in 2006
Direct	£1,510 mn	in 2006 £436 mn	33,500
Direct	21,01011111	2400 11111	33,300
Multiplier (indirect and induced plus TV)	£1,625 mn	£420 mn	33,500
British film box office effect	£53 mn	£8 mn	500
Tourism	£900 mn	£200 mn	20,000
Promotion/trade	£20 mn	£5 mn	700
Merchandising	£235 mn	£105 mn	6,500
Total	£4,343 mn	£1,174 mn	94,700

Note: The core 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 68% of total production spend in 2006. Assuming that value added and employment and tax revenues flow in a similar proportion, this would mean that global inward investment in UK films supported around 65,000 jobs, contributing about £3 billion to UK GDP and £800 million to Exchequer revenues (gross of tax relief and other fiscal support).

# Appendix A: Tax incentives provided for the film industry in a selection of other countries

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
BELGIUM	Belgium tax shelter.	Tax allowance.	Production.	Investors can access a tax exemption worth 150% of the amount they invest in Belgian audiovisual projects. Investors can make a maximum of 40% of their investment in the form of a loan. Projects must have a Belgian production company involved, the tax investment must not exceed 50% of the total budget and Belgian spend must be at least 150% of the Belgian tax shelter capital.
FRANCE	Soficas (film investment trusts) and the credit d'impot.	Tax credit (credit d'impot).  Tax deduction (Soficas).	Production or investment in production companies (Soficas).  Production only (credit d'impot).	Individuals and companies invest in Soficas to access tax deductions. Soficas then select film and TV projects for investment, and take a negotiated recoupment position. In 2006, a total of \$43.8m (€32.8m) was raised through Soficas. The credit d'impot was created in 2004 in a bid to stop French productions shooting overseas. Producers either take a cash rebate or rebate against corporation tax for up to 20% of below the line costs. In 2006, 119 films qualified for the credit.
HUNGARY	Hungarian Motion Picture Act.	Tax allowance.	Production.	A non-Hungarian producer enters a service agreement or coproduction agreement with a local producer which is registered with the National Film Office (NFO). The local producer must register the production with the NFO and certify production costs paid in Hungary. Once the NFO issues a tax certificate, a local financier can disburse the face value of the certificate and reduce its corporate tax to be paid at year's end. Recent examples include features Eichmann, Mrs. Ratcliffe's Revolution, and TV projects Robin Hood and The Company.

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
IRELAND	Section 481.	Tax allowance.	Production.	Projects can derive a benefit, net of all fees, of up to 20% of their qualifying expenditure. Qualifying expenditure is based on the cost of EU cast and crew working in Ireland, and goods and services purchased in Ireland, up to a maximum of 80% of the total overall budget. There is a ceiling of \$46.8m (€35m) on qualifying expenditure per project Section 481 benefit is made available to the production on the first day of principal photography.
AUSTRALIA	Refundable tax offset; Division 10BA of the Tax Act.	Tax credit (tax offset). Tax deduction (10BA).	Production only.	Tax offset: The producer claims 15% (increased from 12.5% on 1 July 2007) of what is spent in Australia, providing at least \$12.1m (A\$15m) is spent and this represents at least 70% of the budget. The 70% condition does not apply if the spend is more than \$40.3m (A\$50m). 10BA: Investors receive a 100% tax concession on the full amount of their investment in the year the film is made. There is, as of 1 July 2007, a new 15% rebate on qualifying Australian Post/Digital/VFX (PDV) spend of more than A\$5 million (regardless of where the project was shot)
NEW ZEALAND	Large-budget screen production grant.	Rebate.	Production only.	The producer claims a 15% (increased from 12.5% on 16 July 2007) rebate for productions. The new regime removes the previous requirement for at least 70% of the production expenditure to be spent in NZ for productions between \$15 and \$50 million. It also allows several productions costing a minimum of \$3m each to "bundle" to meet the requirement for qualifying expenditure of \$30 million. And it adds an incentive to use New Zealand-based post-production digital and visual effects services with qualifying expenditure of between \$3 million and \$15 million.

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
SOUTH AFRICA	Large-budget film and television production rebate scheme.	Tax rebate.	Production.	South African films and coproduction treaty films get a 25% rebate and foreign films get 15% rebate of what they spend in South Africa if half of the principal photography is done in the territory over a minimum of four weeks. Producers can bundle together three productions within a continuous 12-month period to meet the minimum spend of \$3.4m (R25m).  The producer has to apply for a provisional rebate certificate from the Department of Trade and
				Industry (DTI) by supplying details of budgeted expenditure. A final application has to be submitted within three months of completing the film, with an audited expenditure statement and sample footage and the money should be paid out.
US FEDERAL	Section 181 (of the American jobs Creation Act).	Tax allowance.	Production only.	Film and TV productions costing \$15m or less (\$20m or less if made in "distressed" areas of the country) and spending at least 75% of that amount on services performed in the US can immediately write off their entire production costs for tax purposes. Deductions can in some circumstances be taken by institutional or individual investors in projects. Money is raised by producer or financial middleman.
CONNECTICUT	Connecticut Digital Media & Motion Picture Tax Credit.	Non- refundable transferable tax credit.	Pre-production, production and post-production.	Qualified productions spending in excess of \$50,000 in Connecticut on pre-production, production or post-production receive tax credits of up to 30% of qualified Connecticut spending on goods, services and labour. Productions must apply for eligibility certificate no later than 90 days after first qualified production expense and for tax credit certificate no later than 90 days after last qualified production expense.

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
LOUISIANA	Louisiana Motion Picture Incentive Program.	Transferable tax credits.	Production only.	Investors in certified productions  – which require the setting up of a local production company and must have a "viable multi-market commercial distribution plan" – spending \$0.3m or more in Louisiana get a transferable 25% tax credit on in-state spending. The state will purchase the credits for 72 cents on the dollar. An additional 10% credit applies to payroll costs for state residents (with individual payments over \$1m excluded) and a 15% credit to investment in certified infrastructure projects.
MASSACHUSETTS	Massachusetts Motion Picture Tax Incentive.	Transferable tax credit.	Production only.	20% tax credit on a production's total payroll in the state. Additional 25% tax credit based on all production expenses in Massachusetts, provided at least half the film is shot in the state or half of the expenses are spent in the state. Credits can be carried forward for up to five years or sold to another corporate taxpayer. Eligible productions also exempt from paying sales tax in the state.
NEW JERSEY	New Jersey 20% Tax Credit Program.	Saleable and transferable tax credit.	Production (including post if done in-state).	Producers who spend 60% of their below-the-line budget in New Jersey (exclusive of post-production costs) can receive tax credit in an amount equal to 20% of the qualified production expenses. Credit is saleable and transferable and may be carried over to subsequent tax years.

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
NEW MEXICO	Film Production Tax Rebate.	Tax rebate.	Production, pre- and post production, as long as expenditures are subject to state taxation.	25% tax rebate on all production expenditures that are subject to taxation by the state (including New Mexico labour). Film investment loan programme offers loans, with participation in lieu of interest, of up to \$15m per project for qualifying features and TV projects with budgets of at least \$2m. State also offers a 50% reimbursement of wages for New Mexico residents promoted to advanced below-the-line crew positions.
NEW YORK	Empire State Film Production Credit (New York State) and Made in New York (New York City).	Refundable tax credits.	Production (including post- production if done in the state or city).	Empire State Film Production Credit: refundable 10% tax credit for film and TV productions doing at least 75% of their studio work in qualified state facilities (total studio work could be as little as one day). For location work, post-production and costs of other work done in New York State outside the facility, must either do 75% of its location shooting in the state or spend at least \$3m on work done at the qualified facility. Made in New York: additional 5% credit for productions based in NYC.
SOUTH CAROLINA	South Carolina Production Incentive fund.	Cash rebate.	Production only.	Qualified productions that spend \$1m or more in the state qualify for a 20% wage rebate for the employment of persons who are subject to South Carolina withholdings tax. Productions also qualify for a cash rebate of 30% on goods and services acquired from a South Carolina supplier and on certain out-of-state expenses. Rebates paid within 30 days of final audit. Qualified productions also pay no sales tax on hotel rooms (save 7%) or other purchases (5%).

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
CANADA FEDERAL	Canadian Production Tax Credit (CPTC) and Production Services Tax Credit (PSTC).	Tax Credit.	Production only.	Production establishes Canadian corporation; budget to Canadian Audio Visual Certification Office (CAVCO) and Canada Revenue Agency (CRA). CAVCO issues certificate for estimate of the tax credit. On delivery, entity submits certificate with its tax return. CPTC: 25% of qualified labour expenditures up to 15% of the cost for Canadian productions and co-productions; PSTC: aimed at all prods, 16% of salaries paid to Canadian residents, no limit on amount claimed.
ALBERTA	Alberta Film	Tay roboto	Production only.	Pohato of up to 220/ up to a
ALBERTA	Development Program (AFDP).	Tax rebate.	Production only.	Rebate of up to 23% up to a maximum payment of \$1.3m (C\$1.5m). The grant, paid on completion, is based on the degree of local participation. A majority (51%) Alberta ownership is eligible for 21% rebate on Alberta expenditures, with bonuses up to 23% for each Albertan in a key creative position. Co-productions eligible for 19% and foreign productions for 14%, with bonuses to 21% and 16% for locals. Minimum spend \$22,000 (C\$25,000).
BRITISH COLUMBIA	Film Incentive BC (FIBC); Production Services Tax Credit (PSTC).	Tax credits.	Production only.	Film incentive available to qualifying Canadian productions and co-productions, offers 30% credit on qualified BC labour expenditures; PSTC, aimed at all productions, regardless of nationality, offers 18%. BC producer or company submits budget to BC Film, which administers credits. BC Film issues a certificate of eligibility. On delivery of the completed film, the incorporated entity submits certificate with its tax return.

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
MANITOBA	Manitoba Film and Video Production Tax Credit.	Tax Credits.	Production only.	Basic tax credit of 45% on eligible Manitoba labour expenditures. Available to all productions. Production incorporates in Manitoba, submits budget to Manitoba Film & Sound (MFS), which administers credits. MFS issues production certificate which provides an estimate of the tax credit based on budget, which production can use to raise finance. On delivery of the film, incorporated entity submits certificate with its tax return.

NOVIA SCOTIA	Nova Scotia Film Industry Tax Credit.	Tax Credit.	Production only.	Projects that qualify as Nova Scotia productions or co- productions can claim 35% of eligible labour costs, capped at 15% of the production budget. Production incorporates in Nova Scotia. On delivery of the completed film, the final budget is audited for eligible Nova Scotia labour costs and a certificate issued for submission with the production's tax return.
ONTARIO	Ontario Film and TV Tax Credit (OFTTC). Ontario Prod Services Tax Credit (OPSTC).	Tax Credit.	Production only.	OFTTC offers a 30% tax credit on eligible Ontario labour costs (40% on the first \$240,000 is available to first-time producers). Available to all productions, the OPSTC offers 18% tax credit on eligible Ontario labour costs. Production incorporates in Ontario, budget to the Ontario Media Development Corporation, obtains certificate used to raise finance. On completion, production receives certificate to submit with its tax return.

	NAME OF SCHEME	TYPE OF TAX SYSTEM	WHAT IT SUPPORTS	HOW DOES IT WORK?
QUEBEC	Quebec Refundable Tax Credit (QRTC); Quebec Prod Services Tax Credit (QPSTC).	Tax credits.	Production only.	QRTC provides credit up to 14,58% of budget (and 19.58% of eligible French-language production) up to a maximum of \$1.9m (c\$2.19m) per production. Available to Quebec productions and co-productions if a minimum of 75% of the Quebec producer's portion of the production costs are spent in Quebec. QPSTC available to any production, regardless of nationality, and provides a base rate of 20% of eligible labour expenditures.
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SASKATCHEWAN	Saskatchewan Film Employment Tax Credit (SFETC).	Tax credit.	Production only.	Producers can claim a credit of up to 45% of total eligible salaries, not exceeding 50% of the budget. Available to all productions – non-Saskatchewan residents can be deemed SK residents. Production incorporates in Saskatchewan, submits proposed budget and receives tax certificate from SaskFilm. On delivery of the completed film, the incorporated entity submits the certificate along with its tax return.

Source: www.ScreenDaily.com Global Tax Guide; UK Film Council

### **Appendix B: Oxford Economics**

Oxford Economics – formerly Oxford Economic Forecasting - 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.

Oxford Economics' 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.oxfordeconomics.com. These services cover both the international and UK macroeconomy; the full range of industrial sectors globally; and detailed work on UK regions. Oxford Economics is a leading exponent in the design and development of detailed forecasting and policy evaluation models.

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

Oxford Economics commands a high degree of professional and technical expertise, both in its own staff in Oxford, London, Belfast and Philadelphia, USA, and through its close links with Oxford University and a wide range of economic research groups around the world. Senior staff 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.