

# OXFORD ECONOMICS

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## **The Economic Impact of the UK Film Industry**

September 2012

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### Definition of the UK film industry

The following definitions apply throughout the film for 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 the same definition of the UK film industry as used in our 2010, 2007 and 2005 reports.

### The ‘core’ UK film industry

However, the focus of this report – like the previous studies – is on a narrower range of activities, which for clarity we 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 not 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.

## Context

Key industry quotes from the recent UKTI Creative Content Summit, held on the 31st July 2012.

“Now, with the emergence of international markets it’s actually a fantastic thing to be here in the UK, to be able to look East rather than having to look West....Being [in the UK] is fantastic with the support the government gives filmmakers through the Tax Credit, with the co-production treaties, with the talent that is here [and] with the stories that we can tell – it’s the future, it really is.”

***Eric Fellner CBE, Co Chairman, Working Title Films***

“It’s a cultural thing too. [There is an] international appetite for British culture which is really important. There is something interesting about audiences responding well to both big commercial films and smaller films...that [have been] very culturally specific about what they are dealing with in our society.”

***Tim Bevan CBE, Co Chairman, Working Title Films***

“Britain was becoming our second home for filmmaking and it made sense at that point to buy the studios that we made our home..... and speaks to our ambitions to make films [and television] here.”

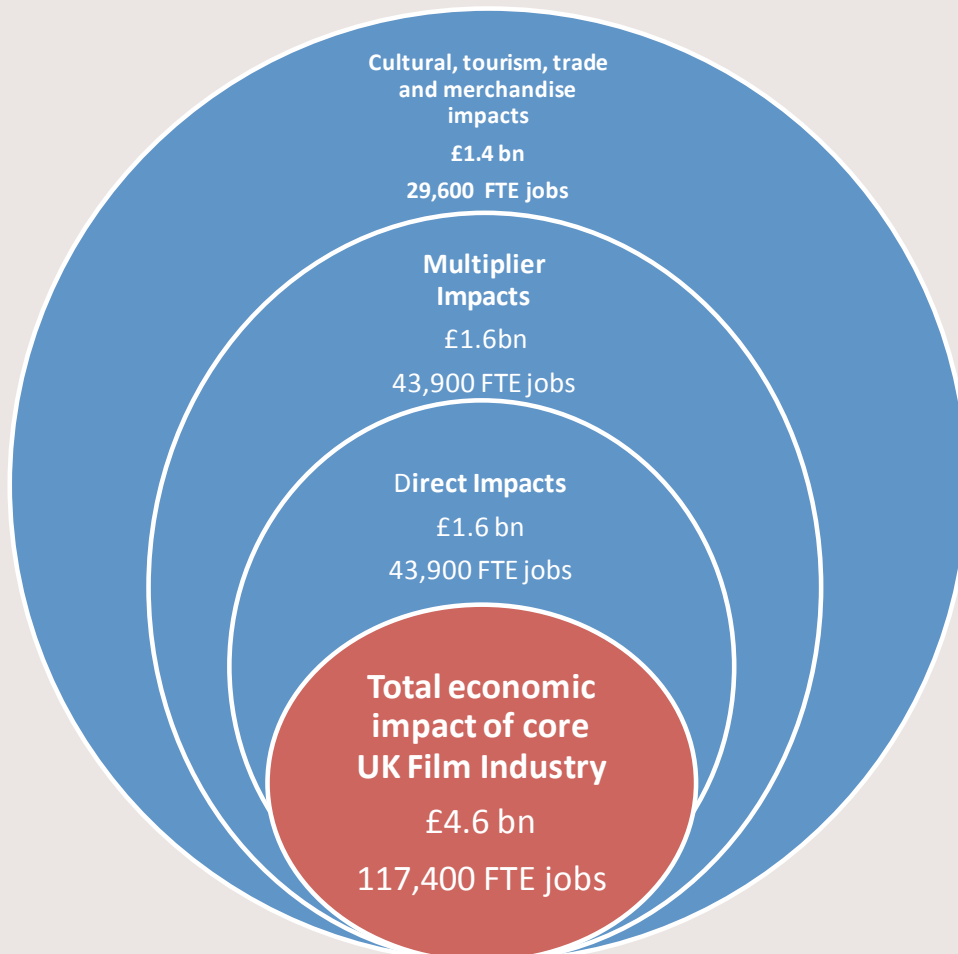
***Josh Berger, CBE, President and Managing Director, Warner Bros. UK, Ireland and Spain, on Warner Bros. purchase of Leavesden studios***

“Making those connections – between art and science, between the creative spark and the selling proposition – is the key to success in any age, but especially in this age of innovation and globalisation. When news and commerce travels, literally, at the speed of light, the commercialisation of creativity must not lag far behind.”

***Sir Howard Stringer, Chairman of the Sony Corporation Board of Directors***

# 1 Key Points

- **Over the last twenty years the UK film industry has grown significantly.** The total number of UK feature films produced each year has increased from an average of 43 in the 1980s to 83 in the 1990s to 136 in the 2000s. In 2011, UK box office receipts on UK-made films reached a record high at £410 million, boosted by both UK studio-backed films (such as *Harry Potter and the Deathly Hallows: Part 2* and *Sherlock Holmes: A Game of Shadows*); and independent films (such as *The King's Speech* and *The Inbetweeners Movie*).
- **Today the core UK film industry is a substantial industry, directly generating 43,900 full time equivalent (FTE) jobs and contributing £1.6 billion to national GDP.** In employment terms, the industry is larger than fund management and the pharmaceutical manufacturing sector. Furthermore, the overall trend is very positive with employment increasing since 1995, mirroring film production levels (particularly inward investment).
- Overall, when considering the film industry's procurement, spending effects from those directly and indirectly employed and its contribution to UK tourism, trade and merchandise sales, **the core UK film industry supported a total of 117,400 FTE jobs, contributed over £4.6 billion to UK GDP and over £1.3 billion to the Exchequer (gross of tax relief and other fiscal support) in 2011.**



- **The long-term trend for the core UK film industry has been very positive with GDP growth consistently outstripping that seen in the UK economy as a whole.** Although the challenging macroeconomic environment appears to have impacted on the industry's GDP figures over 2009/10, given the increase in employment over recent years we estimate that in 2011 the industry's contribution to GDP will revert towards its 2009 level.
- In 2011, the core UK film industry invested £96 million in fixed capital formation. Looking forward, this is expected to increase in forthcoming years as a **number of large-scale projects recently completed or in the pipeline** including the £100 million investment by Warner Bros. at Leavesden and the proposed major development scheme to extend studio capacity planned at Pinewood.
- **The UK film industry competes in the global market and makes a significant contribution to the net UK trade position through export earnings and promoting the UK abroad.** Exports in 2010 were £2.1 billion; whilst the average net trade contribution (trade surplus) since 2000 has been £380 million. Both exports and the trade surplus have increased strongly over the last decade.
- **Exporters of other goods and services also benefit from the part films play in establishing and reinforcing the UK's image and 'brand'.** This is helped by around a quarter of the top worldwide films being premiered or co-premiered in the UK, which generates substantial media exposure.
- **Film Tax Relief is vital to sustaining the competitiveness of film production in the UK.** It provides fiscal stability and alongside other location factors, such as the talent and skills of the workforce and ease of doing business, promotes the UK as a highly attractive inward investment location for film production. We estimate that, in the absence of tax relief, UK film production would be around 71% smaller, reducing GDP by around £1.4 billion a year and Exchequer revenues by £430 million a year. Since the Film Tax Relief costs HM Treasury around £114 million<sup>1</sup> a year, this means it generates about £12 in GDP for every £1 invested.
- The Film Tax Relief and the stability it brings has been demonstrated by significant recent investments including the £100m investment at Leavesden. **Film production remains very competitive with new studio complexes being developed around the world**, such as Cape Town Studios, Docklands in Melbourne, Russia World Studio and Trump Studio City, Miami.
- There are **strong synergies between the UK film industry and other creative industries** with writers, actors, directors and others involved in production working in a variety of other medias. The announcement by the UK government in the last budget that a new tax incentive for high-end scripted TV production is to be introduced demonstrates the success of the Film Tax Relief, on which the new incentives are likely to be based.
- **Films depicting the UK are responsible for generating around a tenth of overseas tourism revenues**, contributing around £1 billion to UK GDP. The value of film tourism has

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<sup>1</sup> Based on the average per annum payment from Treasury statistics over 2006/07 to 2010/11 (total of £570 million claims made).

been recognised by the opening of significant film related attractions such as the Warner Bros. Making of Harry Potter Tour.

- **UK films contribute substantially to British cultural life.** As we saw at the Opening Ceremony of the London 2012 Olympic Games, they are a key means of expression of UK identity and illustrate issues of diversity that are critical to meeting the challenges of the 21st century.
- **The film industry is an important source of jobs for people with a variety of skillsets from highly qualified workers to those with equally crucial vocational skills.** Some 70% of the production workforce are graduates and, at £32,500, the average salary is significantly above the national average.
- **There is a higher level of Black, Asian & Minority Ethnic (BAME) representation in the UK film industry, at 8% compared to 5% in the wider Creative Media Industries (5%); but the level remains slightly below the UK average (10%).** Promoting diversity remains a key challenge going forward, and the industry must continue to ensure training and job opportunities are available to a diverse range of entrants.
- **The rapid global growth of Video-on-Demand (VoD) and other technological advancements will bring major changes to the way film is consumed.** It is forecast that by 2016 the global VoD market could reach \$18 billion.
- **But the economic benefits created by the core UK film industry are threatened by audio-visual copyright theft and infringement.** This problem needs to be tackled effectively to maintain the economic benefits to the UK described throughout this report.
- The UK film industry has begun taking **steps to measure and reduce its carbon footprint** and BFI is in the process of adopting a 'sustainability strategy' that addresses the sector as a whole, as well as its internal processes.



## 2 Executive Summary

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

**... directly employing 43,900 workers...**

- The core UK film industry directly employed around 43,900 full-time equivalents (FTEs) in 2011 (including self-employed). The growth and worldwide reputation of the sector, from its traditional strengths in acting, scriptwriting and film production through to specialist post-production fields like visual effects and music, represents a real British success story.
- The UK is a major player in the global film industry. Its actors regularly win major international awards; its directors produce some of the most acclaimed and original content, like *The King's Speech* and *The Iron Lady*; its studio infrastructure and location crews are renowned the world over; its firms are recruited to provide cutting-edge visual effects on the biggest Hollywood productions like *Avatar*, and films like the James Bond and Harry Potter franchises are some of its most lucrative exports.

**... directly contributing around £1.6 billion a year to GDP...**

- On a turnover of £3.5 billion, the core UK film industry directly contributed around £1.6 billion to UK GDP in 2011. This means that the core UK film industry contributed slightly more to GDP than, for example, the manufacture of consumer electronics, performing arts and software publishing.
- The core UK film industry has undertaken a total of £1.2 billion of fixed capital investment in infrastructure and new technology since 2000.

**... and £490 million to the Exchequer...**

- The core UK film industry is estimated to have directly contributed about £498 million to the Exchequer in 2011 in income tax, national insurance contributions, VAT and corporation tax (gross of tax relief and other fiscal support). This is equivalent to 14% of the turnover in the core UK film industry.

**The core UK film industry has a supportive relationship with other creative industries..**

- For every person employed 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 87,800 FTE jobs when we include 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 £308 million of revenues. This indicates the scale of return to broadcasters and as highlighted by "A Future for British Film – it begins with the audience"<sup>2</sup>, an independent review of film policy by a panel chaired by Lord Chris Smith, supports the case that there needs to be a higher investment commitment by UK broadcasters into UK film.

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<sup>2</sup> *A Future for British Film – it begins with the audience*, published by an independent review panel chaired by Lord Chris Smith, was commissioned in 2011 by Culture Minister Ed Vaizey and has looked at how to ensure film is a sector which plays a full role in driving growth. It was published in January 2012.

- This ‘multiplier’ activity contributes a further £1.6 billion a year to UK GDP and £470 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 are involved in production 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.

### **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. Danny Boyle’s Olympic Opening Ceremony, using filmic special effects and internationally recognised British film characters such as James Bond and Mr Bean and scenes from films such as *Trainspotting* and *A Matter of Life and Death*, is an example of this. The industry not only attracts significant inward investment but produces independent UK films that make a cultural contribution and discuss important societal challenges.

### **...supporting the UK’s international balance sheet....**

- The core UK film industry is a significant contributor to export earnings in its own right. In 2010, total exports of the film industry were around £2.1 billion, with a net contribution of £1.6 billion to the UK balance of payments.
- Currently the vast majority of the UK film industry’s trading is with the USA and the European Union, accounting for over 79% of total exports collectively. This contrasts to the geographical distribution of the global film entertainment market, which excluding the UK can be split as: EU (20%), Other Europe (4%), USA (38%), Asia (22%) and the Rest of the World (16%). Future economic growth will increasingly be driven by the Asian, BRIC and other emerging economies.
- Exporters of other goods and services also benefit from the part films play in establishing and reinforcing the UK’s image and ‘brand’. This is helped by many of the top worldwide films being premiered or co-premiered in the UK, which has generated substantial worldwide media exposure.
- The growing market in brand promotion 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 £56 million in GDP a year.

### **... providing jobs for highly qualified workers and those with important vocational skills...**

- The film industry provides jobs for some of the UK’s most highly qualified workers, for example 70% of the production workforce are university educated.
- The industry also relies on vocational and craft skills and the recent *Film Policy Review* highlighted them as a key area of focus, recommending the continued creation of apprenticeships and internships to cover craft and technical skills across the film sector.

The Livingstone-Hope Review (*NextGen*) highlighted the importance for visual effects (VFX) of combined art and computer science skills and the need for the UK to improve the teaching of STEM (science, technology, engineering and mathematics) subjects in schools.

- 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 is £32,500 per annum, significantly above the UK average income of £26,100.
- The core UK film industry has made some progress in increasing levels of diversity across its workforce. There is now a higher level of Black, Asian & Minority Ethnic (BAME) representation at 8% of the workforce than across the wider Creative Media Industries (5%) although the level is still below the UK average of 10%.

### **...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, phone apps, podcasts and Movie Maps are available to direct tourists to key locations depicted in film franchises such as Harry Potter and Sherlock Holmes. The economic value of film related tourism attractions is demonstrated by the opening of the Warner Bros. Making of Harry Potter Tour, a significant investment at Leavesden Studios in Hertfordshire.
- While there is limited robust statistical data quantifying the value of this impact, the available evidence suggests around a tenth of the value of foreign tourism to the UK may be attributable to UK films.
- On this basis we estimate that around £2.1 billion of visitor spend a year is attributable to UK films.
- In 2011, this additional spending was estimated to be worth £1 billion to UK GDP and £230 million to the Exchequer.

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

- The core UK film industry contributes substantially to the cultural life of the UK. UK films are a means of expression of British identity. UK films also address the social challenges faced in the 21st century, including unemployment, prejudice and race relations, as well as positive themes such as family values, friendship and triumph over adversity.
- In 2011, independent UK films accounted for an impressive 13.3% of the UK box office with the most successful films being *The King's Speech* and *The Inbetweeners Movie*; which have become the top two independent UK films of all time.
- Moreover, econometric evidence suggests that film audiences place a premium on indigenous films. Our estimates suggest that, all things being equal, a UK film will earn 30% more box office revenue at domestic cinemas. On this basis, we calculate that the existence of UK films boosted the box office revenues of cinemas by an average of around £69 million a year since 2000. As a result, employment in the exhibition sector of the core UK film industry has probably been around 470 higher than it would have been if cinemas

had been showing only foreign films, with Exchequer revenues around £22 million a year higher through additional VAT, corporation and income tax contributions.

### ...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 DVD and Blu-ray were worth an additional £115 million in 2011; rentals of UK films were worth an additional £41 million; film on VoD was worth £16 million; sales of soundtrack CDs were £10 million; and sales of related computer/video games were £70 million. In addition, UK films support sales of books, toys, models and clothes, as well as many other products and services through special film-themed promotions.
- We estimate that the merchandising associated with UK films supported about 6,600 jobs in 2011, contributed about £239 million to UK GDP and £108 million to the Exchequer.

**In total, the core UK film industry generated over £4.6 billion of GDP in 2011 and Exchequer revenues of over £1.3 billion...**

- Taking into account all of the ways in which the core UK film industry contributes to the UK economy, we calculate that it contributed over £4.6 billion to GDP in 2011, paid over £1.3 billion to the Exchequer in tax revenues (gross of tax relief and other fiscal support) and supported about 117,400 jobs (Table 2.1).
- Within these totals, inward investment films generated about £3.7 billion to GDP in 2011 and about £1 billion in Exchequer revenues.

**Table 2.1: Summary of the economic contribution of the core UK film industry**

Channel of impact	Total contribution to UK GDP in 2011, £m	Total contribution to Exchequer revenues in 2011, £m	Employment impact in 2011
Direct	£1,600	£500	43,900
Multiplier (indirect and induced plus TV)	£1,600	£470	43,900
Total - Direct & Multiplier	£3,200	£970	87,800
British film box office effect	£100	£20	500
Tourism	£1,000	£230	21,000
Promotion/trade	£100	£20	1,500
Merchandising	£200	£110	6,600
<b>Total</b>	<b>£4,600</b>	<b>£1,300</b>	<b>117,400</b>

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. £m = £ million. GDP and employment figures are rounded to the nearest 100 and tax figures to the nearest 10.

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

- Taking account of the effects of the Film Tax Relief introduced in 2007, our estimates show that the costs of producing a film in the UK have fallen relative to those in its competitors, so that in 2012 UK film costs are around 38% lower than those in the US and 10% lower than in South Africa, after accounting for the incentives on offer in both countries. Film Tax Relief has been an important factor in maintaining UK competitiveness, alongside the depreciation of the pound since 2008.
- With Film Tax Relief in place, we expect the core UK film industry to continue to attract around 8% of global film production over the period to 2015, with spend on inward investment productions bettering its record 2011 level of £1 billion per year. This should underpin a continuation of the long-term trend expansion seen in the core UK film industry.

**...facilitating £1.4 billion a year of GDP that would be lost with no tax relief**

- The importance of 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 relief in place. In this case, the UK's cost advantage vis-à-vis the US would fall significantly, and the UK would fall back behind other non-European territories in terms of competitiveness.
- We estimate that this loss of competitiveness would reduce the UK's share of global film production by around 6 percentage points to 2% by 2015. This would be equivalent to a loss of inward investment of about £560 million a year by 2015. In addition, inward investment helps to support indigenous film production (domestic production and co-productions), which would be seriously undermined by the loss of the tax relief and the knock-on benefits that inward investment films would have brought to the UK. Overall UK film production might be reduced by 71% were there no Film Tax Relief.

The Film Tax Relief is important given the stability it brings to the fiscal regime which facilitates long term business investment decisions. A decline in film production in the region of 71% would have substantial economic effects:

- It would reduce the direct contribution of the core UK film industry to GDP by about £1.2 billion and by £2.4 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 27,600 jobs directly and 55,200 jobs 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. This is perhaps even a conservative estimate, given the standard of living on offer in many emerging filmmaking destinations, such as Vancouver. As a result of this, UK GDP would be directly reduced by around £170 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 these impacts would result in UK GDP in the medium term reducing by around £1.4 billion a year.
- These losses in turn would reduce Exchequer tax revenues by about £430 million a year, taking account of multiplier impacts and effects on merchandising. That compares with an estimated cost of the Film Tax Relief to HM Treasury of around £114 million a year<sup>3</sup>.

The announcement by the UK government in the last budget that new tax incentives for animation, video games and high-end scripted TV production sectors are to be introduced demonstrates the success of the Film Tax Relief, on which the new incentives are likely to be based.

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<sup>3</sup> Based on the average per annum payment from Treasury statistics over 2006/07 to 2010/11 (total of £570 million claims made)

## 3 Introduction

### 3.1 Structure of this report

This report, prepared by Oxford Economics, is a comprehensive assessment of the economic impact of the ‘core UK film industry’. It provides an update of previous studies that examined the impact of the film industry, published in 2005, 2007 and 2010<sup>4</sup>.

The rest of this report is structured as follows:

- **Chapter 4: Direct Impacts** focuses on the direct impacts of the core UK film industry particularly employment and GDP.
- **Chapter 5: Multipliers and Linkages with other Creative Industries** discusses the multiplier impacts of the core UK film industry.
- **Chapter 6: International Trade and Promotion** looks at the international contribution of the core UK film industry in terms of exports and the wider promotion of the UK.
- **Chapter 7: The Impact of Film Tax Relief** assesses the stimulus provided to the core UK film industry by the Film Tax Relief.
- **Chapter 8: Productivity and Skills, Education & Training** assesses the productivity of the core UK film industry and related indicators such as average wages, education, and skills and training.
- **Chapter 9: Tourism** covers the impact of the core UK film industry on tourism.
- **Chapter 10: Culture** looks at the impact of the core UK film industry on the enhancement and appreciation of UK culture.
- **Chapter 11: Merchandising** looks at the value of merchandising associated with the core UK film industry.
- **Chapter 12: Video-on-Demand and Digital Copyright Protection** looks at the rate of growth of Video-on-Demand (VoD) and explores the threat of audio-visual copyright theft and infringement.
- **Chapter 13: Conclusions** summarises the overall economic contribution of the core UK film industry.

### 3.2 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.

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<sup>4</sup> The 2007 and 2010 editions can be accessed at: <http://www.bfi.org.uk/education-research/film-industry-statistics-research/reports/uk-film-economy>

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. While the economic impacts associated with all of the activities of the film production sector in the UK – whether on UK or non-UK films – are set out in this report, we only include activity in the distribution and exhibition sectors related to UK qualifying films. A UK film is currently defined as any film which is certified British by the Secretary of State for Culture, Media and Sport under Schedule 1 of the Films Act 1985 (see Section 3.3 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 (i.e. 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 (e.g. IP creation); planning, writing, direction and casting; cast (e.g. costume, make-up, props sales/rental); location (e.g. stage and studio rental and equipment; location management and catering; set production, electrical skills); and film and sound (e.g. 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).
- **Distribution:** film duplication; secondary distribution of UK-made films (video, DVD, TV sales, online etc).
- **Exhibition:** cinema projection of UK-made films.

### 3.3 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 the 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.

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 the Cultural Test administered by the British Film Institute (BFI) on behalf of the Department for Culture, Olympics, Media and Sport; and
- Incur at least 25% of its total production expenditure on filmmaking 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. Higher budget 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 be either interim, if the film has not been completed, or final, if it has. The Secretary of State certifies films on the advice of the British Film Institute.

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

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

Film Tax Relief is guaranteed to apply until the end of December 2015 following the European Commission's approval, under state aid rules, of the Government's application to extend the scheme. However, the EC is currently drafting a revised Cinema Communication. At the time of writing, the draft Communication is under discussion between the European film sector, European governments and the Commission and it is too early to say exactly what the final form of the new rules will be.

### 3.4 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 core UK film industry's supply chain, as a result of 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).

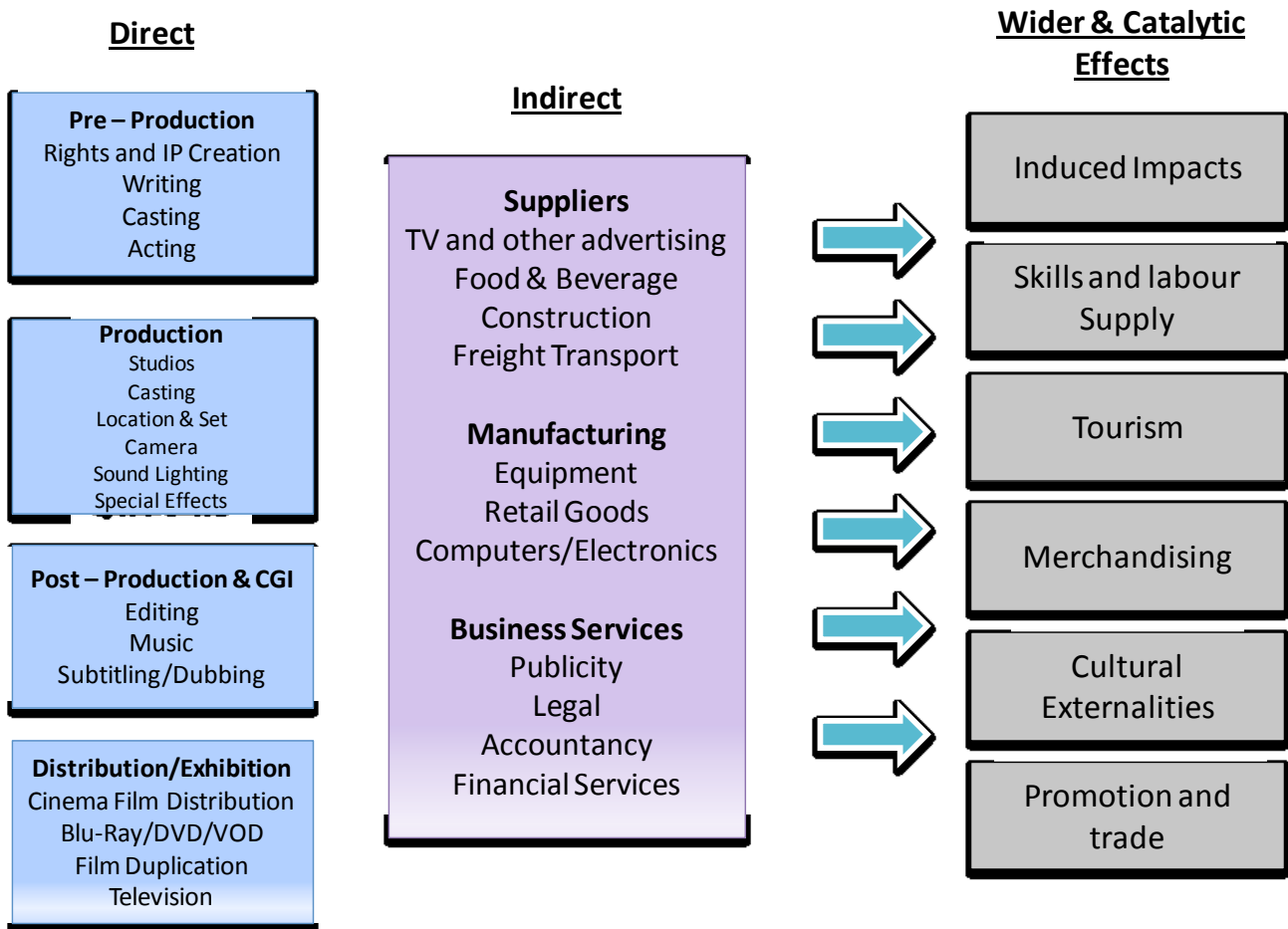
- **Induced impacts** – employment and activity supported by those directly or indirectly employed in the core UK film industry spending their wage income on goods and services in the wider UK economy. This helps to support jobs in the industries that supply these purchases, and includes jobs in retail 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. It also increases the pool of talent and skilled labour for other screen industries such as TV and commercials.
- **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 (i.e. spillovers or benefits) are unlikely to be provided by an unaided market.
- **Merchandising** – sales of DVDs, VoD, books, CDs, video games, phone and tablet apps, toys, models and clothing 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 accrue benefits to other industries, consumers and the economy more generally (as shown in Figure 3.1 overleaf).

Figure 3.1: The core UK film industry and its economic impacts



## 4 Direct Impact – Employment & GDP

### Key Points

- Over the last twenty years the UK film industry has grown significantly. The total number of UK feature films produced each year has increased from an average of 43 in the 1980s to 83 in the 1990s to 136 in the 2000s. UK box office takings on UK made films reached a record high in 2011 at £410 million, boosted by both independent films (such as *The King's Speech* and *The Inbetweeners Movie*) and UK studio-backed films (such as *Harry Potter and the Deathly Hallows: Part 2* and *Johnny English Reborn*).
- The core UK film industry employed approximately 43,900 full-time equivalents (FTEs) in 2011 (including those self-employed), which was 22% higher than the previous report's estimate of 36,000 FTEs in 2009 due to a steep rise in self-employment over the last three years and data revisions. This has occurred despite the overall UK economy being in recession.
- In 2011, the core UK film industry is estimated to have directly contributed £1.6 billion to GDP. The latest data implies that the challenging macroeconomic environment may have impacted on the GDP figures over 2009/10 exerting downward pressure on average wage levels and profit margins.
- In 2011, the core UK film industry invested £96 million in fixed capital investment. This figure is expected to increase in the next couple of years as there are a number of large-scale investment projects recently completed or in the pipeline. These include the £100 million investment by Warner Bros. at Leavesden and the proposed major development scheme to extend studio capacity at Pinewood and additional stage capacity at Shepperton Studios.
- The direct tax contribution of the core UK film industry via income tax, national insurance contributions, corporation tax and net VAT is estimated to have been £500 million in 2011 (gross of tax relief and other fiscal support).

### 4.1 Introduction

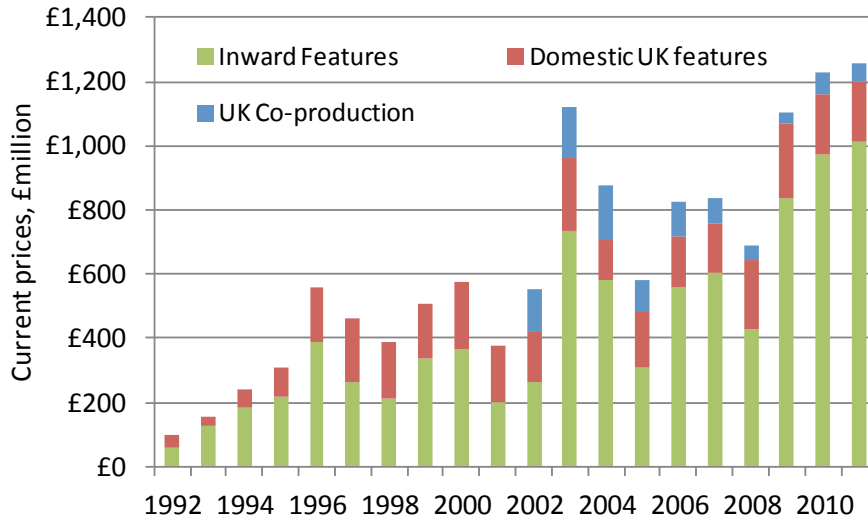
Over the last twenty years the film industry in the UK has grown significantly. On the production side, there has been a steady rise in the number of UK feature films made, from an average of 43 each year in the 1980s to 83 in the 1990s and to 136 in the 2000s<sup>5</sup>. Total expenditure on film production in the UK exceeded £1.2 billion in 2010 and 2011, driven by inward investment (Chart 4.1).

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<sup>5</sup> Source: *Statistical Yearbook 2011*, British Film Institute, Table 17.2 (2011 figure supplied by BFI separately)

Chart 4.1:

Expenditure on inward, domestic and co-productions in the UK

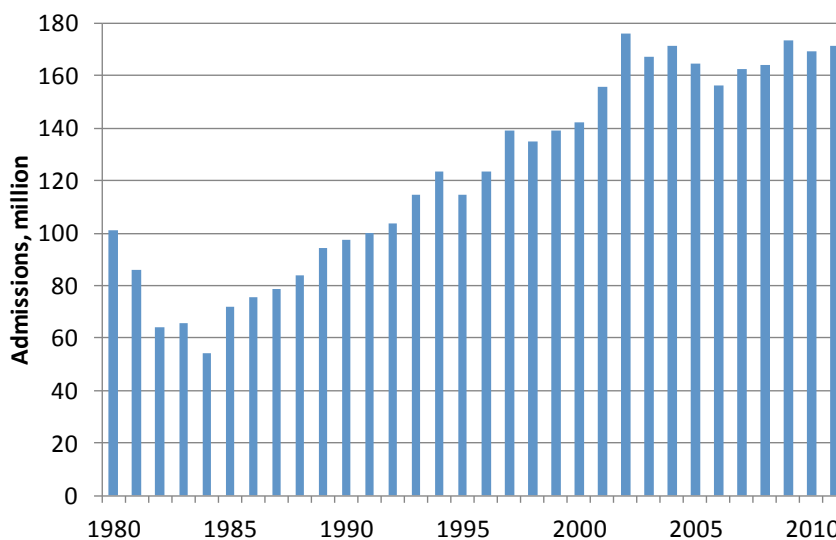


Source: BFI (Data for films with budgets greater than or equal to £500,000)

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 165 million per annum since 2000<sup>6</sup>. In 2011, cinema admissions were 171.6 million, the third highest total of the last decade and drove UK box office takings over £1 billion (Chart 4.2). It was also a record year for UK films' box office takings which were £410 million in 2011, boosted by both UK studio-backed films (such as *Harry Potter and the Deathly Hallows: Part 2* and *Johnny English Reborn*) and independent films (such as *The King's Speech* and *The Inbetweeners Movie*).

Chart 4.2:

Annual UK Cinema admissions, 1980-2011



Source: BFI, CAA, Rentrack

<sup>6</sup> Source: *Statistical Yearbook 2011*, British Film Institute, Figure 1.2

This chapter investigates the employment, GDP and investment directly created by 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.

## 4.2 Direct employment

The level of employment in the core UK film industry has been rising steadily since the mid-1990s with the total level estimated to be around 43,900 in 2011 (Table 4.1) in terms of full-time equivalents (FTEs)<sup>7</sup>. The core UK film industry is larger than the fund management, beverages manufacturing and pharmaceutical manufacturing sectors.

The employment estimates are based on a combination of key data sources including the results for the 2002 detailed survey of 400 companies in the screen industries for the Optima/CE study, updated for employment growth over the last nine years<sup>8</sup>. Importantly they incorporate data from the Business Register and Employment Survey (BRES) for employees and the Labour Force Survey (LFS) for self-employment<sup>9</sup>. There is a significant increase in the total level of employment compared to the previous report due to a sharp increase in self-employment in the industry from 2009 onwards (Chart 4.3) and data revisions.

**Table 4.1: Employment in the core UK film industry, 2011**

Film Sector	Employment	
	Total Jobs	FTE Jobs
Production	22,800	19,400
Distribution	1,300	1,200
Exhibition	4,800	3,100
Total Employees	28,900	23,700
Self-employed	24,600	20,200
Total	53,500	43,900

Source: CE; ABI; BRES; ONS; Oxford Economics estimates

<sup>7</sup> Based on the assumption that one part-time job equates to 0.5 of a full-time job.

<sup>8</sup> Using data from the Business Register and Employment Survey (BRES) and Labour Force Survey (LFS). Please note that the employment figures have been revised from previous report editions to feed in historical data revisions.

<sup>9</sup> The Labour Force Survey is survey based data incorporating a sample size of approximately 41,000 households per quarter and at sector level (particularly detailed Standard Industrial Codes (SIC)) will be subject to very small sample sizes.

This new employment estimate, driven by higher self-employment, seems plausible for a number of reasons. There has been a consistent annual increase in self-employment from 2009 onwards rather than a one off peak in the new data (Chart 4.3). This pattern is tentatively supported by film production (see Chart 4.1) which confirms a sharp rise in production from 2009 onwards that has been sustained. Additionally, qualitative evidence from the industry suggest that this may reflect changes in tax status, a rise in the number of small budget films and an increase in crew sizes on large budget films. Further evidence from self-employment data for the Information and Communications sector as a whole (which motion picture activities falls into) also shows a large jump from 2010 to 2011. Given the high number of graduates entering the industry (see Chapter 5), these figures could also suggest that new entrants have no other options but to become freelance whilst new technology has made filmmaking easier and more affordable. In tougher economic times firms are also more inclined to use freelance support and not salaried workers.

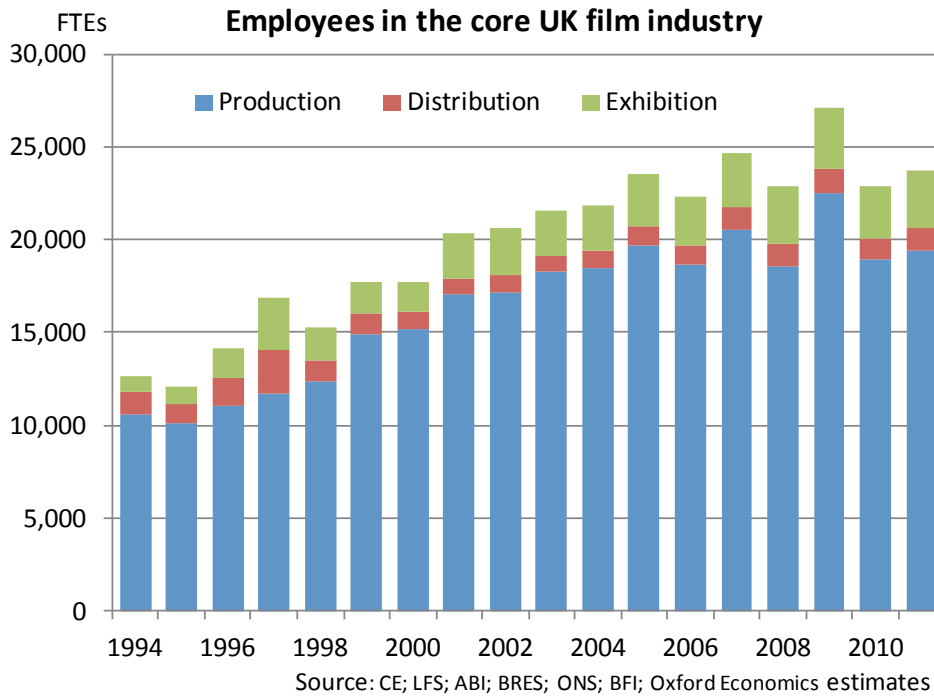
**Chart 4.3:**



Source: CE; ABI; LFS; BRES; ONS; BFI; Oxford Economics estimates

The noticeable peak in employees (Chart 4.4) in 2009 is driven by a large number of employees in the production sector (motion picture production and post-production activities). This peak is particularly hard to explain given it was when the wider economy was contracting most rapidly and production levels (see Chart 4.5) have been sustained since 2009. By 2010 the number of production employees fell back to a level consistent with the historical data which could imply that there was a lagged recessionary effect within the industry which may explain why self employment levels have accelerated recently.

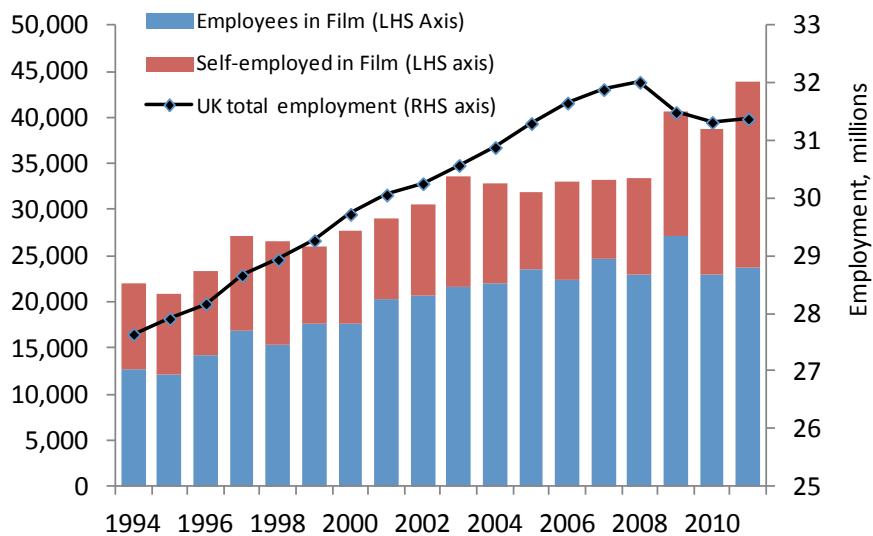
Chart 4.4:



Overall, employment in the core UK film industry has grown consistently over the past decade and a half, primarily driven by the production sector, which has doubled, and the exhibition sector which has continued to increase steadily from approximately 1,000 FTEs to 3,200 in 2011. As a result, the total level of employment in UK film has increased over the last three years, despite the UK economy being in recession.

Chart 4.5:

**Total employment in the core UK film industry and whole economy**





### 4.3 Direct contribution to GDP

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

On this basis, we estimate that, on a turnover of £3.5 billion, the core UK film industry contributed around £1.6 billion to UK GDP in 2011. This means that the core UK film industry contributed slightly more to GDP than, for example, the manufacture of office machinery, manufacture of consumer electronics, call centre activities and packaging activities<sup>10</sup>. Table 4.2 shows the composition of core UK film industry value added. In 2011, the production sector accounted for around 63% of total gross value added, with the distribution/exhibition sector accounting for the remaining 37%.

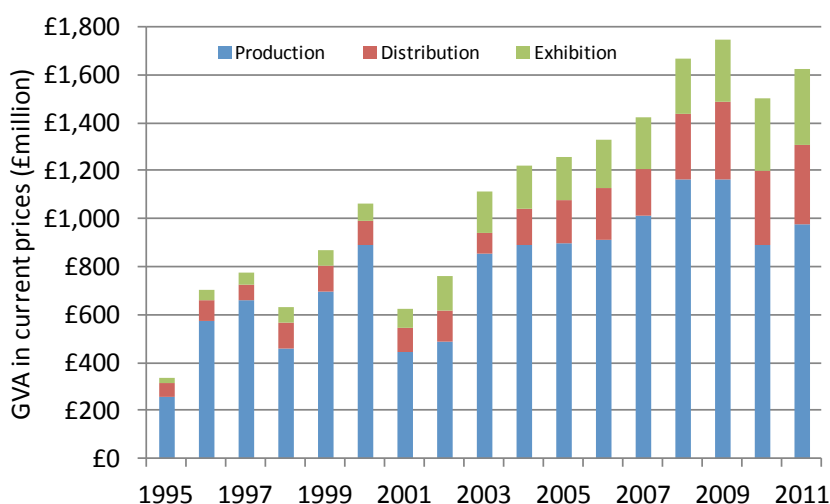
**Table 4.2: Sales and gross value added in the core UK film industry, 2011**

Film Sector	Sales £ million	Value added £ million
Production	£2,200	£1,000
Distribution	£800	£300
Exhibition	£500	£300
Total	£3,500	£1,600

Source: CE; ABI; ABS; ONS; Oxford Economics estimates

**Chart 4.6:**

#### Gross value added in the core UK film industry



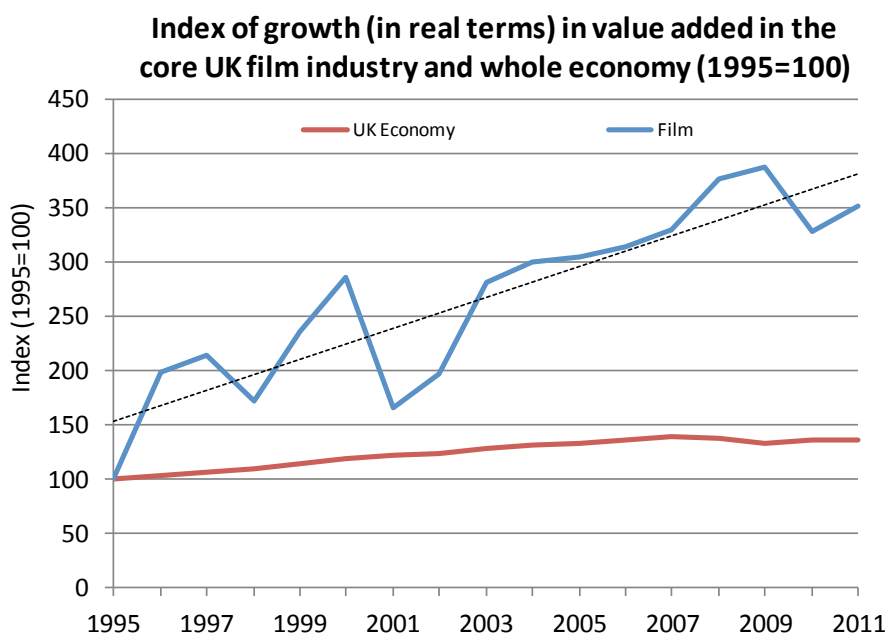
Source: CE; ABI, ABS, ONS, Oxford Economics estimates

<sup>10</sup> Using ONS Annual Business Survey data.

The latest GDP data from ONS shows a significant fall in 2010, particularly in the production sector; both production and post-production activities. This implies that the challenging macroeconomic environment may have impacted over 2009/10 with downward pressure on average wage levels and profit margins. Given the increase in employment over recent years we estimate that in 2011 total GDP will increase back towards its 2009 level.

The long-term trend for the core UK film industry (Chart 4.7) has been very positive with growth consistently outstripping that seen in the UK economy as a whole. The core UK film industry's contribution to GDP has increased on average by 5.4% per annum over the 1996-2011 period in current prices (Chart 4.6) or 3.6% per annum in real (i.e. inflation-adjusted) terms (Chart 4.7).

**Chart 4.7:**



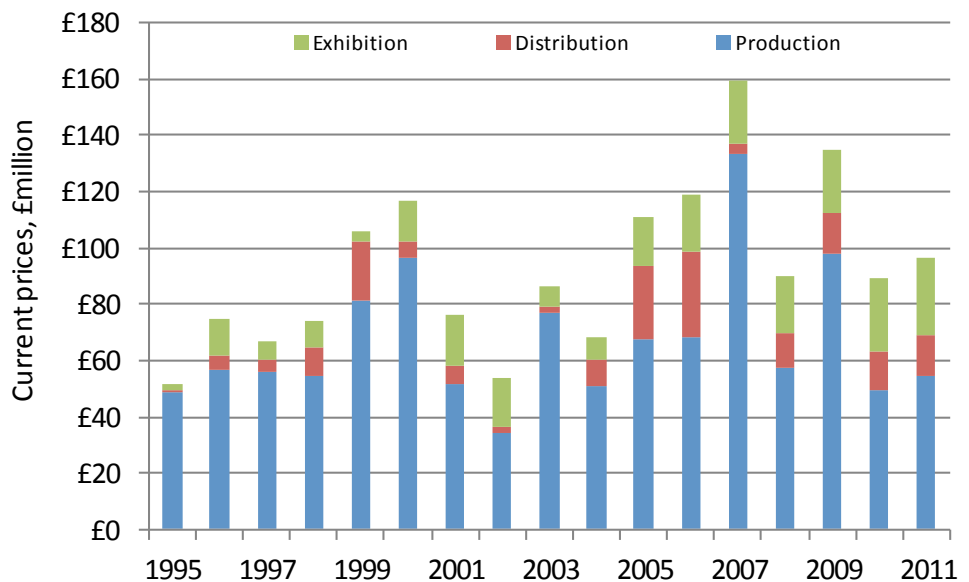
Source: CE; ABI, ABS, ONS, Oxford Economics estimates

#### 4.4 Direct investment

Across the core UK film industry, fixed capital investment is estimated to have been £96 million in 2011 (Chart 4.8). The majority (57%) of this was undertaken by the production sector, with distribution and exhibition contributing 15% and 28%, respectively. Both the size of the spend and the split by sector was little changed from the previous year.

Chart 4.8:

**Capital investment in the core UK film industry**



Source: CE/ABI/ ABS/ OE

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 £4,600 per annum, with the highest investment in the distribution sector, at £11,100 per annum. In the production (including pre- and post- production) sector, investment per FTE worker has been around £3,900 a year since 2000. This means that the core UK film industry invests more per worker than, for example, the average across the all wholesale and retail trade (£2,500 per FTE worker); all professional, scientific and technical activities (£1,900); and education (£1,400)<sup>11</sup>.

There are a number of large-scale capital investment projects recently finished or within the pipeline for the UK film industry including the £100 million investment by Warner Bros. at Leavesden, after acquiring the production studios in 2010 (this investment is likely to be captured in the 2011 and 2012 figures). A proposed major development scheme to extend studio capacity is also planned at Pinewood in order to respond to rising demand for production space following a record year in 2011 whilst in April Pinewood’s 30,000 sq ft Richard Attenborough stage officially opened. Indeed, since 2007 and up until Q2 2012 total capital investment by Pinewood has amounted to £63m. Additional stage capacity is also planned at Shepperton Studios. Future investment plans have also been highlighted by Elstree Studios which is planning to build a 30,000 sq ft studio and the production company was recently awarded a £2 million grant from the Hertfordshire Local Enterprise Partnership Board, for a job creation scheme which will develop new film and TV facilities on site.

<sup>11</sup> Using the average net capital expenditure and employment figures from Annual Business Survey over 2008/2010, available from ONS.

**Table 4.3: Investment in the core UK film industry**

Sub-sector	Net capital investment (per annum average for 2000-2011)	
	£ million	£ per FTE employee
Production	£70	£3,700
Distribution	£12	£11,100
Exhibition	£18	£6,800
Total	£100	£4,500

Source: CE; ABS; BRES; LFS; Oxford Economics estimates

## 4.5 Research and development expenditure

Firms in the core UK film industry spend money on the development of new products, processes and technologies to give themselves a competitive advantage in the fierce global market for work. In particular parts of the industry, such as visual effects and post-production, there is a premium on innovation to land major contracts with the large production studios – impressive special effects, such as 3D and computer-generated imagery, is big box office, as demonstrated by the runaway success of *Avatar*. Soho is widely acknowledged as the most important hub for visual effects production after Hollywood, and houses four of the world’s largest visual effects companies (Double Negative, Framestore, Cinesite and MPC). These companies are trusted by overseas producers and are known for their ability to take on complex sequences and indeed entire productions if needed. Much of this reputation can be traced to cutting-edge visual effects technologies developed in-house by independent firms, either individually or collaboratively. Their expertise in blockbusters such as the Harry Potter franchise, *War Horse*, *Sherlock Holmes*, *The Chronicles of Narnia*, *Inception*, *Iron Man II*, *The Dark Knight*, *Hellboy II*, *Avatar* and *Pirates of the Caribbean* seems indicative of a highly successful innovation ecosystem within the UK. The innovative firms within the sector have been identified as a key strength of the Digital and Creative Industries sector, a key emphasis in the Government’s white paper on The Plan for Growth<sup>12</sup>.

Official data sources on research and development (R&D) expenditure are not disaggregated enough sufficiently to quantify levels of spending in the film industry. Nevertheless, it is clear from speaking to individual firms that R&D spending in many parts of the film industry is very significant – whether on new technologies for film production, distribution or exhibition. We know that the largest R&D projects, involving the creation of new content platforms or new ways of working, tend to be collaborative, and can involve several key industry players as well as traversing the boundary between film and TV: the MUPPITS project, for example, which is exploring ways of sharing physical and virtual resources to improve efficiency in the post-production sector, is co-funded by the Technology Strategy Board (a government agency) and involves organisations such as the BBC, Pinewood Studios, Southampton University and a number of London post-production houses.

<sup>12</sup> *The Plan for Growth*, BIS, March 2011

## 4.6 Direct tax revenues

### 4.6.1 Contribution to the Exchequer

The core UK film industry is estimated to have contributed around £498 million in tax receipts to the Exchequer in 2011 (gross of tax relief and other fiscal support). Almost half of the tax revenues raised arise from corporation tax payments (gross of tax relief); most of the remainder is from income taxes and national insurance (Table 4.4).

**Table 4.4: Estimates of direct tax contribution from the core UK film industry, 2011**

	<b>Tax revenues (£million)</b>	<b>% of the total</b>
Income tax	110	22.0%
NI – employee	58	11.6%
NI – employer	56	11.3%
VAT	43	8.6%
Corporation tax	214	43.0%
Withholding tax	17	3.5%
<b>Total</b>	<b>498</b>	<b>100.0%</b>

Source: HM Revenue & Customs; ONS; Oxford Economics estimates  
Corporation tax (gross) is equal to the corporation tax liability without the government tax relief given under Section 42/48.

### 4.6.2 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 other public sector organisations, and from the European Union. The BFI estimates that total public funding for film was £358 million in the financial year 2010-11. Of this, the largest single contributor was HM Revenue and Customs via the UK Film Tax Relief, which at £200 million accounted for 55.9% of the total (Table 4.5).

**Table 4.5: Estimates of fiscal support to the core UK film industry, 2008-11**

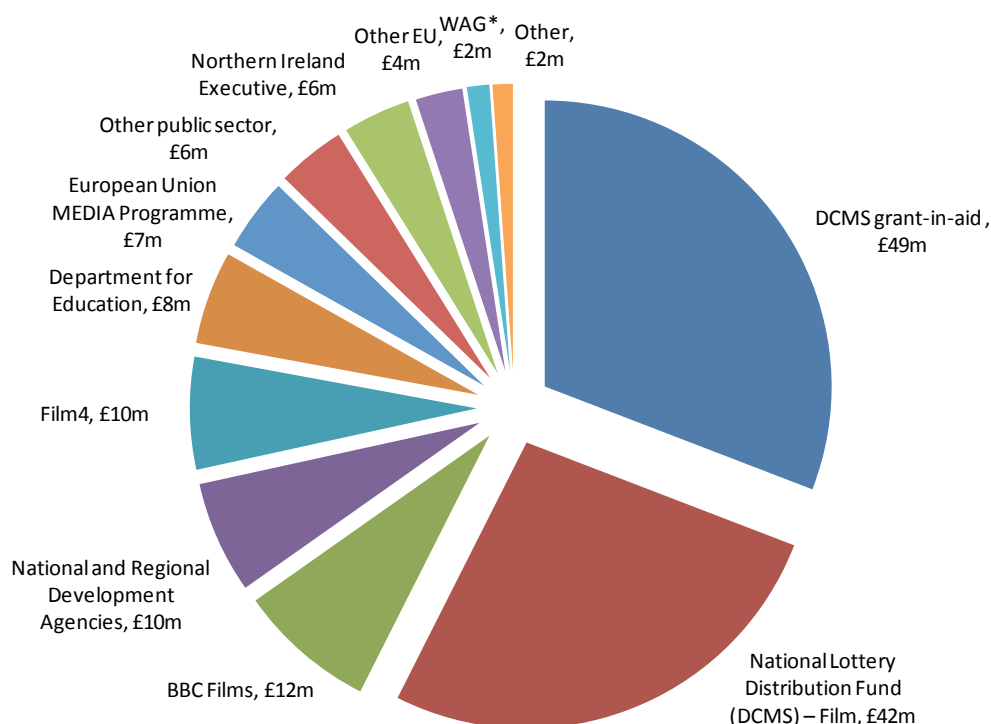
	<b>2008/09</b>	<b>2009/10</b>	<b>2010/11</b>
Total Public Funding, £million	£256	£266	£358
UK Film Tax Relief, £million	£145	£125	£200
UK Film Tax Relief, as % of total	56.6%	47.0%	55.9%

Source: BFI

Other key sources of public funding in 2010/11 were the Department for Culture, Media and Sport (DCMS) grant-in-aid to the UK Film Council and National Film and Television School (NFTS) (£49 million, 14% of the total) and the National Lottery (£42 million, 12% of the total). BBC Films contributed £12.3 million and Film4 £10 million (Chart 4.9). The European Union (EU) contributed £10.7 million, of which £6.5 million (£5.1 million in 2009/10) came from the MEDIA Programme.

**Chart 4.9:**

**Public funding for film in the UK by source, 2010/11 (excluding tax relief)**



Source: BFI  
\* WAG stands for Welsh Assembly Government

#### 4.7 Direct regional impacts

The core UK film industry is predominantly based in London, which accounts for 57.4% of total employment. This disproportionate concentration of film employment is common to most of the major film-producing countries, most notably in the US which is clustered around Hollywood, but also countries like France, whose film industry is centred to a large extent on Paris.

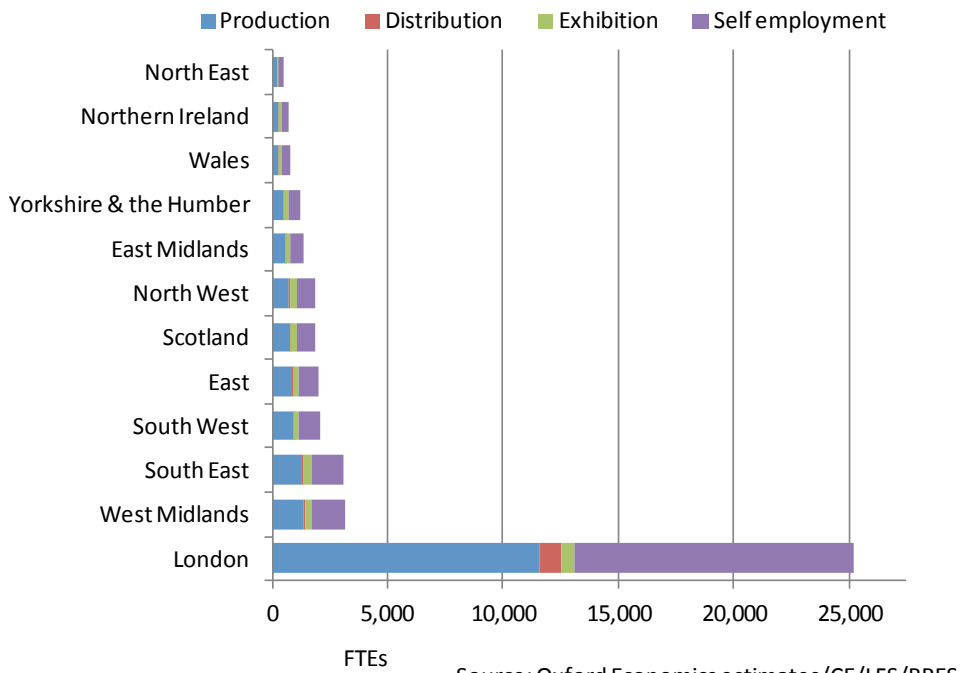
The West Midlands has the next highest share of employment at 7.2%, which reflects a very high number of employees in the production sector in 2011<sup>13</sup>. In relative terms as a proportion of total employment the core UK film industry represents 0.5% of total employment in London but across other regions accounts for a much smaller proportion, at under 0.2%. The regional distribution of total employment has changed significantly compared from the last report with some regions accounting for more of the UK total than previously including the West Midlands, the South West, the North West and Northern Ireland. This is largely driven by the latest employee data from the Business Register Employment Survey (BRES) which is also used to estimate self-employment given the inaccuracies (or lack of) data at a regional level from the LFS.

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 (for example, scenes

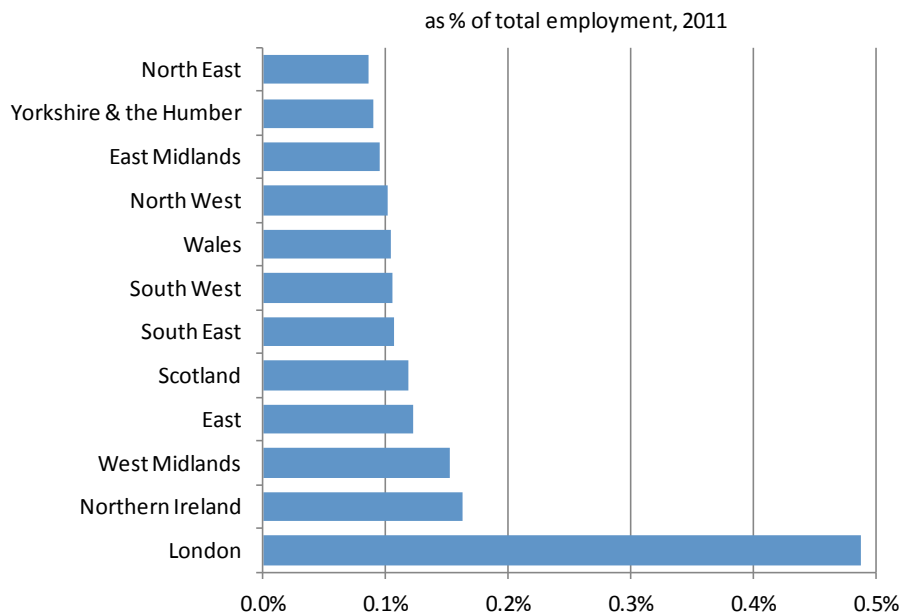
<sup>13</sup> These figures have been checked with the Office for National Statistics who investigated the figures and report that the increase is caused by a return that was not sampled in the previous year and had a higher level of employment than expected.

from *Harry Potter and the Deathly Hallows Parts 1 and 2* were filmed in Pembrokeshire, Scottish Highlands and Hertfordshire, *The Woman in Black* was filmed outside Peterborough and Colchester and *War Horse* was filmed in Devon).

**Chart 4.10:**  
**Employment in the UK film industry by region 2011**



**Chart 4.11:**  
**Employment in the UK film industry by region, 2011**  
as % of total employment, 2011



#### **Box 4.1: Film production in Northern Ireland – a new source of economic growth**

At a time when many industries in Northern Ireland are in decline and with creativity being heralded as one of the key themes of the Northern Ireland Economic Strategy, the creative industries stand out as an opportunity for continued growth and increasing global recognition.

Creative industries in Northern Ireland have been identified as a significant opportunity for wealth and job creation with quite considerable sector output growth at rates of between 5% for non-digital and 30% per annum for digital sectors.

In recent years, Belfast has increasingly become the hub for film and television production, building on the success of earlier projects including *Closing the Ring* and *Breakfast on Pluto* to large-scale productions such as *City of Ember*, *Your Highness* and TV series *Game of Thrones*. Other films that have made Northern Ireland their base include *Good Vibrations* – the biopic of Ulster punk guru Terri Hooley, who championed bands such as the Undertones. The studio offer in Northern Ireland as whole is improving all the time with significant investments (both privately and publicly funded) this year and in the pipeline, including two new sound studios in the Titanic Quarter and studio space in Banbridge. This shows the momentum and confidence that has been building in the sector, particularly due to the *Game of Thrones* effect.

Northern Ireland Screen, the government-backed lead agency in Northern Ireland for the film, television and digital content industry, administers the Screen Fund, an investment fund supporting all types of exportable film, television and screen content production in Northern Ireland. It is both a development and a production fund and is Northern Ireland Screen's primary tool in accelerating the development of the screen industry. Funding through the Screen Fund throughout the agency's new strategy 'Driving Global Growth', covering 2010-2014, is estimated to already be £13.3m (over 2010-July 2012). This support has generated an estimated total spend in the Northern Ireland economy of £82.7m over the same period, demonstrating significant return on investment (£6 for each £1 invested). The upsurge in projects within the sector is strongly linked to increased investment, aggressive marketing and government support of the creative industries and recognition that in Northern Ireland this is a growth area.

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.
- Pinewood, Shepperton & Teddington Studios (Pinewood Group) – one of the UK's and world's leading studio companies located on the outskirts of London in Buckinghamshire and Middlesex, providing studio and related services to the film and television industries. Nearly 300 independent media and production support companies are based across the three studio lots. Providing services to productions, each other and complementing the group's own facilities, this co-location of skills comes together to create a unique studio village environment. Catering for all types of shoots and all budgets, the Studios accommodate major national and international film production, filmed television, studio television recording, commercials, video games, pop promos and band rehearsals. Recent film and TV productions that have used the Studios' facilities include the 23rd James Bond



film *Skyfall*; *Snow White and the Huntsman*; *Anna Karenina*; *Prometheus*; *Les Misérables*; *Maleficent*; *Love Machine*, *The Magicians*, *Got To Dance* and *Sing If You Can*. Visit [www.pinewoodgroup.com](http://www.pinewoodgroup.com) for more information.

- Elstree and Warner Bros., 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. Leavesden studios was purchased in November 2010 by Warner Bros., which is the only Hollywood studio to own and operate its own production facility in the UK. Since the purchase, the company has invested £100 million in the re-building and expansion of the studios (due to be completed this year), which will make it one of the largest studio production facilities in Europe. Recently it was announced that BBC Studios and Post Production (a commercial subsidiary of the BBC) will be moving to Elstree Studios in spring 2013, while the BBC's Television Centre is being redeveloped.
- 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 returned to film in 2005 after a gap of many decades with the making of high-profile films such as *Notting Hill* and *Dorian Gray* and more recently *Nowhere Boy*, *St Trinians 2*, *From Time to Time* and *Gambit* (to be released later this year). It is also the base for TV shows such as the BBC's *Cranford* and *Let's Dance*. Since 2002, Ealing studios has spent approximately £25-30 million on redeveloping its studio site, an investment project which is about to come to an end with the last phase of the building due to complete soon.

The film industry is part of a wider screen industry cluster (i.e. 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 5). 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 5).

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

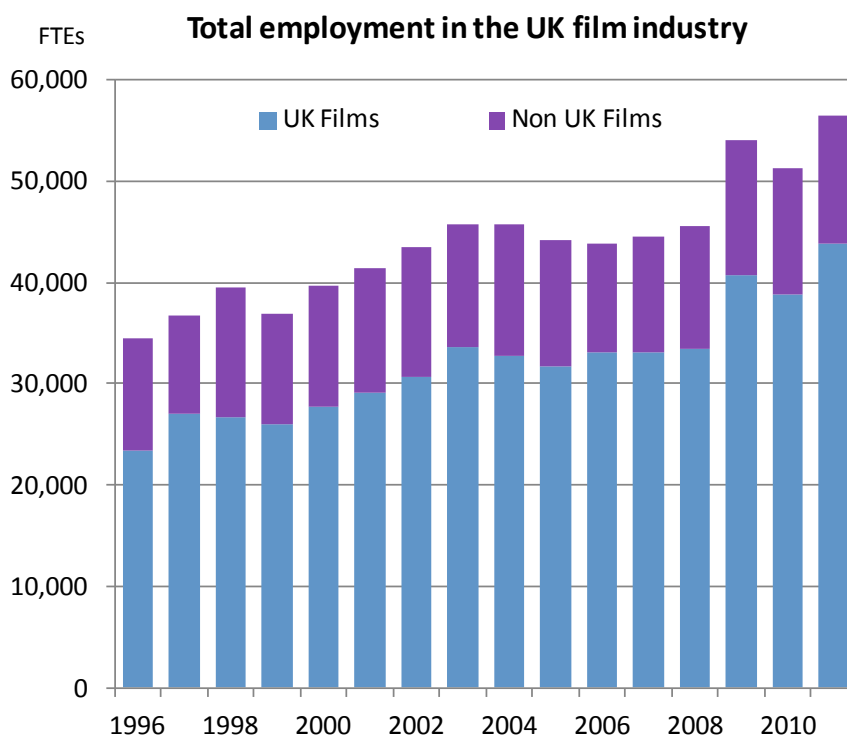
The existence of clusters boosts growth through a variety of ways. Clusters raise productivity by allowing access to specialised inputs and employees, and increase firms' capacity for innovation by diffusing technological knowledge and innovations more rapidly. They also stimulate higher rates of new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

## 4.8 Economic impact from non-UK films

The above sections provide estimates of employment and gross value added for the core UK film industry only. A further 12,500 people (FTE-basis) are directly employed in the film industry supported by the distribution and exhibition of foreign-made films<sup>14</sup>.

In 2011 the whole of the film industry in the UK (i.e. including the activity associated with the distribution/exhibition of films made abroad) employed 56,500 people (FTEs) and contributed £3.7 billion of GDP. Charts 4.12 and 4.13 illustrate the trend in employment and gross value added over the 1995-2011 period.

Chart 4.12:

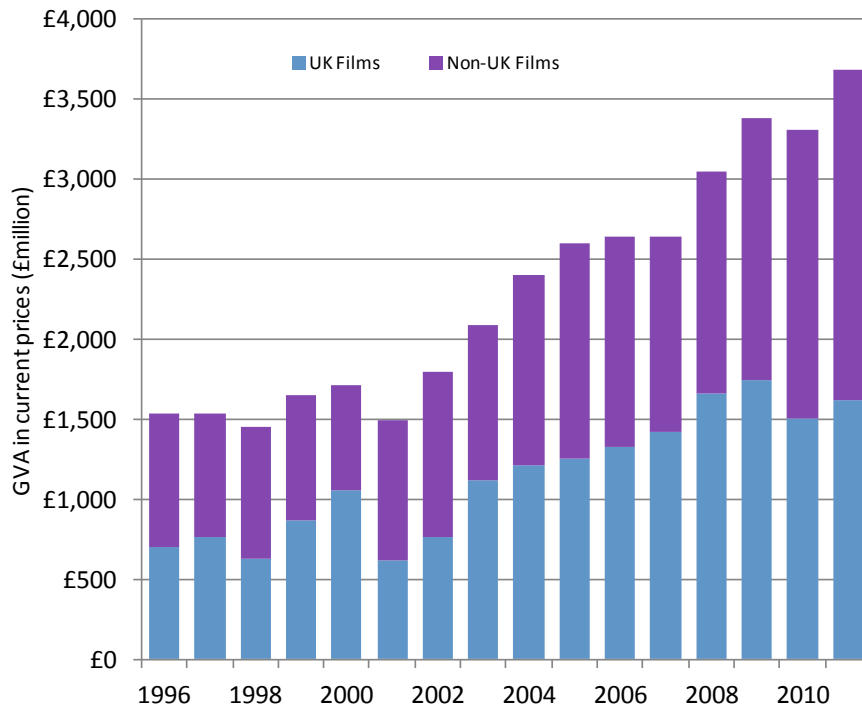


Source: CE; LFS; ABI; BRES; ONS; BFI; OE estimates

<sup>14</sup> Please note these figures differ from the employment and GVA estimates in the BFI Statistical Yearbook due to different data sources and methodology. The Business Register Employment Survey (BRES) is used rather than the Labour Force Survey for employees and the findings of the detailed survey of 400 companies in the screen industries for the Optima/CE study in 2002 is used as a baseline for employment numbers and updated for employment growth over the last nine years.

Chart 4.13:

Gross value added in the UK film industry



Source: CE; ABI, ABS, ONS, OE estimates

One of the features of foreign-led film production within the UK is its tendency to reflect cultural or economic linkages between the UK and overseas. Foreign-led production also reflects acknowledged UK strengths in specific technical fields such as Computer Generated Imaging (CGI), for example with director James Cameron contracting some key scenes in the 3D blockbuster *Avatar* – now the highest grossing film of all time – to London company Framestore.

#### 4.9 The carbon footprint of the UK film industry

In line with the greater emphasis on sustainability within wider political and social agendas across the world, the UK film industry has taken proactive steps to measure and reduce its carbon footprint.

No single UK-wide benchmarking of the film industry’s carbon footprint has been undertaken. As in our previous report, a 2009 study for Film London estimated the city’s total screen production industry’s carbon footprint at 125,000 tonnes per year, excluding international and employee travel and emissions from the sales, distribution and exhibition of films and TV shows. This was made up of 40% from studio emissions, 28% from TV and film production, 17% from location shoots and 15% from post-production activities<sup>15</sup>.

But quantifying the total amount of carbon produced is less important than developing ways to improve sustainability and reduce it. BFI has worked with a wide range of industry bodies across

<sup>15</sup> Source: *Green Screen: Helping London’s Film and TV Industry Take Action On Climate Change*, report for Film London and the Mayor of London, 2009.

the UK to develop BS8909 *Specification for a sustainability management system for film*, launched in May 2011 at the Cannes Film Festival. It provides practical guidelines to help the industry adapt the way it works in the light of climate change. Greeningfilm, a website sponsored by the BFI, describes ways in which the UK film industry can reduce its environmental impact (see Box 4.2).

There are many examples of production companies looking to implement more sustainable production practices. For instance Warner Bros. procured external assistance to lower the carbon footprint of *Sherlock Holmes: A Game of Shadows*, focusing on separating waste produced and reducing the proportion going to landfill. Pinewood and Shepperton have also developed a comprehensive Environmental Policy which has included introducing major recycling facilities to divert large amounts of waste away from landfill. The BFI has begun implementing a sustainability management system on its 'estate' (archives, film store, BFI Southbank, BFI Stephen St) and sustainability management has been taken up by a number of sector bodies, such as BAFTA, the Production Guild, the Cinema Exhibitors Association, and some large UK film productions. BFI is in the process of adopting a 'sustainability strategy' that addresses the sector as a whole, as well as its internal operations. As part of this it convenes a sector-wide sustainability working group to facilitate and encourage the adoption of sustainability management systems. In the future, it will look at pulling together data that demonstrates sector progress toward sustainability.

#### **Box 4.2: Greeningfilm – helping reduce the industry's carbon footprint**

www.greeningfilm.com, sponsored by the British Film Institute (BFI), aims to help professionals working in every part of the film industry – studios, locations, distribution, exhibition, special effects, post-production and archives – to reduce their carbon footprint, save money and make sure they're not caught unawares by new environmental legislation.

A number of firms have emerged to provide specialist sustainable management services to the film industry. One such company is Greenshoot, which manages all practical aspects of carbon reduction and waste management on feature films and was launched in 2009 by former employees of the film and advertising industry to reduce the environmental footprint of the film industry. Recent films they have worked on to improve environmental sustainability include: *Sherlock Holmes: A Game of Shadows*, the new production of *Les Misérables* and smaller scale productions such as *Gambit*. After the film has been completed producers receive a Greenshoot Environmental Report that has been compiled from the first day to the last by the co-coordinator on set, cataloguing the social, economic and environmental impact of a shoot. Experience shows that, through waste reduction and improved energy use, the carbon emissions associated with a film production can be reduced by nearly 50%.

## 4.10 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, and an increase in film exhibition. Since our last report the employment figures have been revised substantially upwards due to an increase in self employment and data revisions.

## 5 Multipliers and Linkages with other Creative Industries

### Key Points

- The core UK film industry helps to support 87,800 FTE jobs allowing for those directly employed, for those employed in its supply chain and for the jobs dependent on the spending of film industry workers.
- In total the core UK film industry supports a £3.2 billion a year contribution to UK GDP, taking into account direct, indirect and induced impacts – equivalent to 0.2% 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 £154 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 £967 million in 2011.
- The core UK film industry has synergies with a wide range of other creative industries. Writers, actors, directors and others involved in production 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.
- There are 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, computer programming and commercials.

### 5.1 Introduction

As well as the direct contribution of the core UK film industry to the economy, there are indirect impacts on employment and output through its procurement 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 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.

### 5.2 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 Optima/CE<sup>16</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. This 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 latest ONS Annual Business Survey (ABS)<sup>17</sup>. This shows that between 2008 and 2010, spending on goods and services from suppliers by the film and video production sector (SIC 59.11/1) averaged £900 million compared with the sector’s average gross value added (GVA) of £600 million. Clearly, some of these purchases will be from foreign-based suppliers, so will not contribute to UK GDP and employment, and therefore the level of UK purchases probably indicates an indirect multiplier of slightly less than 2.0. 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 suggest 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 ABS and the induced multiplier from the Oxford Economics model suggests that the multiplier for the core UK film industry is consistent with the Optima/CE estimate for the UK film industry as a whole.

Further ONS data<sup>18</sup> suggests that the film multiplier is lower than the economy average and is comparable with, for example, computer services, machine tools and motor vehicles.

**Table 5.1: Examples of output multipliers in other sectors of the UK economy, 2011**

Sector	Indirect	Induced	Total
Electricity production and distribution	2.2	1.25	2.8
Construction	2.1	1.25	2.7
Iron and steel	1.8	1.25	2.2
Motor vehicles	1.7	1.25	2.1
Sports goods and toys	1.9	1.25	2.3
Machine tools	1.6	1.25	2.0
Hotels, catering, pubs etc	1.7	1.25	2.2
Computer services	1.5	1.25	1.9
Legal activities	1.5	1.25	1.8
Education (pt)	1.4	1.25	1.8
Economy average	1.7	1.25	2.2

Source: ONS, Oxford Economics

<sup>16</sup> Source: *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>17</sup> Standard extract tables available from ONS, latest tables relate to 2010.

<sup>18</sup> The latest input output tables from ONS, published in 2011, relating to 2005 data.

### 5.3 Value added and employment

Including direct and multiplier (indirect and induced) impacts, we estimate that the core UK film industry supported around 87,800 FTE jobs in 2011 with a value added contribution to GDP of £3.2 billion. This is equivalent to just over 0.2% of UK GDP.

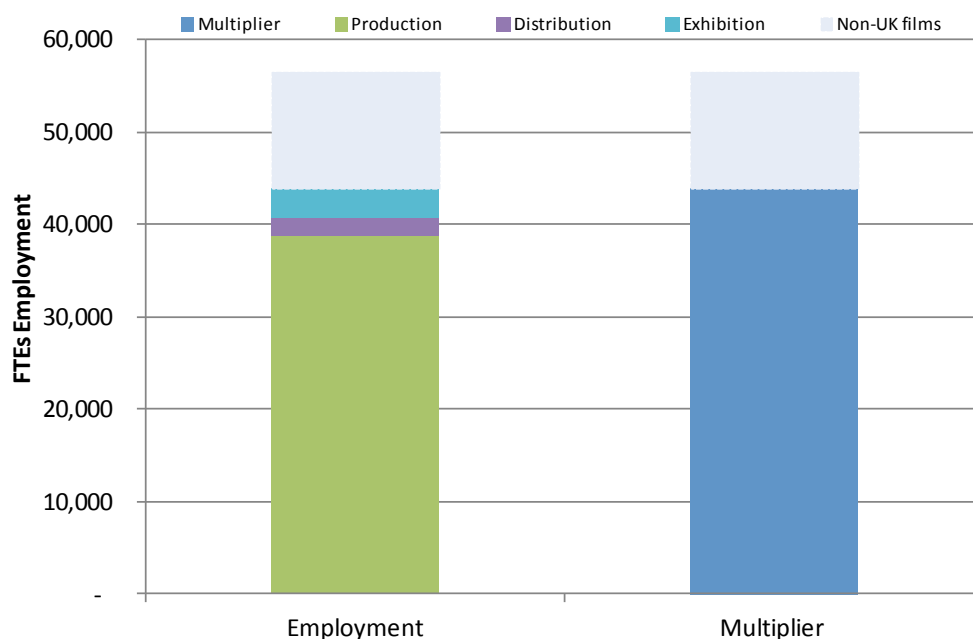
This impact comprises:

- **Direct** employment in the core UK film industry of around 43,900 FTEs in 2011, contributing value added of £1.6 billion to GDP in the UK economy.
- **Multiplier** employment in other industries of 43,900 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 wage 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 £1.6 billion in 2011.

Indirect jobs supported include those in the retail sector generated from 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 at retail and leisure outlets and their supply chains.

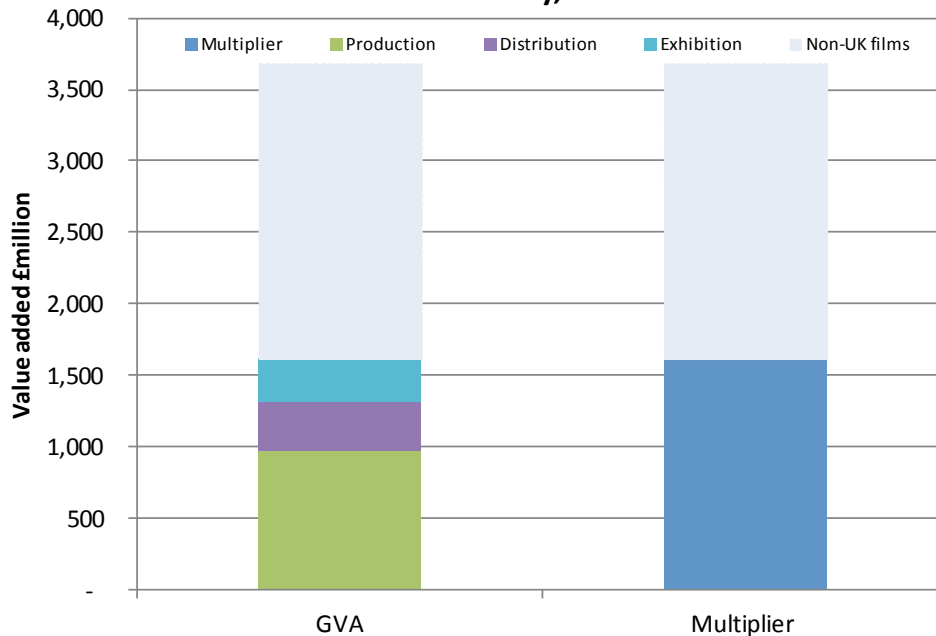
Chart 5.1:

#### Direct, indirect and induced employment in the core UK film industry, 2011



Source: CE, ABI, BRES, ONS, LFS, OE estimates

**Chart 5.2:**  
**Direct, indirect and induced gross value added in the core UK film industry, 2011**



Source: CE, ABI, BRES, ONS, LFS, OE estimates

#### 5.4 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 around 3% of the UK economy in terms of GVA and are a rapidly expanding sector<sup>19</sup>. 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 and Michael Palin have written scripts for TV and radio, as well as for the stage and for film. Not only have many successful TV series or plays been made into films – as in the case of, for example, TV’s *The Inbetweeners Movie* and the West End’s *Mamma Mia!*, *Woman in Black* and *The Phantom of the Opera* – but films represent a significant proportion of television programming and some have moved in turn to become successful stage plays, such as *Billy Elliot* and *The Lord of the Rings*. Extending the theme further, the film *Atonement*, based on the book by British author Ian McEwan, is now also to become an opera.

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

<sup>19</sup> Source: DCMS, “Creative Industries Economic Estimates”, December 2011. Please note due to changes in methodology the overall estimates of total GVA for the Creative industries sector is significantly lower than previous editions of the DCMS statistical bulletin.



revenue stream. This multi-sectoral 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 5-1 for a case study analysis of such links with other sectors).

The involvement of firms and employees in the core UK film industry in other creative activities was demonstrated in the 2005 Optima/CE report, which found that:

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

There are other synergies between the core UK film industry and other creative industries. An important example 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. These techniques include:

- **Harry Potter** – The investment generated by the Harry Potter films enabled UK visual effects company Framestore 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.
- **Avatar** – As the first major 3D film to use CGI technology, *Avatar* placed heavy demands on the global team of visual effects companies that worked to create it. The fact that action scenes needed to be shot and rendered twice – once for each eye of the viewer – led to the creation of numerous new technologies that are now being applied elsewhere. Soho-based firm The Foundry developed software called Ocula, which ensured the twin camera shots were fully compatible and which is now helping to drive development in the application of so-called 'stereoscopic imagery' across film and TV; elsewhere, stereoscopic pre-visualisation tools developed by Framestore have since enabled the firm to win contracts for new TV commercials in the US.
- **ALICE** – This high-end crowd simulation package was developed by MPC R&D following nearly three years of research and development. Initially developed to create over 150,000 rampaging soldiers for Wolfgang Petersen's *Troy*, it has been extensively developed for use on other projects. The software has cross-fertilised into MPC's commercials division where it has been used, for example, to re-create the Rio Carnival for a mobile telephone ad. MPC was able to offer the product to the UK commercials industry, at a lessened price, as both risk and R&D costs were underwritten during development for the film 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. The cutting edge VFX work undertaken for big-budget international productions such as *Avatar*, also helps raise the profile and reputation of the UK's technical screen production sector and secure spin-off benefits elsewhere.

### Box 5.1: Linkages with other sectors – a case study of the Pinewood Studios Group

The Pinewood Studios Group is a leading destination for the world's most exciting and innovative producers of creative content and the definitive production and post production facility in the UK offering over 1.5 million sq ft of studio space and facilities.

Nearly 300 independent media and production support companies are based across its three studio lots. Providing services to productions, each other and complimenting the Group's own facilities, this co-location of skills creates a unique studio village environment. The combination of facilities, skills and related production companies means that Pinewood is well placed to take advantage of the convergence now being seen between different elements of the creative industries.

Pinewood's Post production team, for example, is working on high profile film, video game and television titles and many of the techniques they employ in sound mixing are being utilised across all disciplines. Digital workflow processes and 3D technologies are also being shared.

The scale of video games, high end television and animation are coming closer to large budget films and this, in part, is reflected in the government's consultation on new fiscal incentives for these strands of the creative industries. In the HM Treasury consultation document one of the policy aims outlined is '*to create the necessary critical mass of infrastructure and skills to enable and support production*' as the industry could expect to see an extra £350 million in demand for new programming. High-end television drama in particular could need increased studio infrastructure and stages to help satisfy this new demand.

In addition, Pinewood has seen in recent years a trend for large, light entertainment television shows taking stages that have traditionally been used for film, to house complex sets and large audiences. This has led to Pinewood investing in its recently opened 30,000 sq ft Richard Attenborough Stage to accommodate both film and television production and it sees this flexibility in its infrastructure as a key differentiator.

## 5.5 Economic impact from film on TV

There were 5,570 unique film titles shown on television in the UK in 2011, including 2,013 on terrestrial, 1,475 on pay TV film channels and 3,527 on other digital film channels. There were 3.9 billion viewings of feature film across all television formats (except pay-per-view) in 2011 – over 22 times the number of cinema admissions.

The 2,221 film transmissions<sup>20</sup> (2,013 unique titles) shown on terrestrial channels in 2011 was a number virtually unchanged from 2008 and equivalent to an average of 6 films per day. In 2011, popular films shown on TV included *Indiana Jones and the Kingdom of the Crystal Skull*, *Pirates of the Caribbean: The Curse of the Black Pearl*, *Harry Potter and the Goblet of Fire* and *Mamma Mia!*. Of all films shown on terrestrial TV, 478 (22%) were UK films and 192 (8.6%) were 'recent' UK releases, defined as having been launched theatrically in the previous eight years.

Based on a model developed by Attentional, BFI estimated the value of feature film to UK broadcasters to be approximately £1.4 billion in 2011. This figure was derived from the annual revenue per channel – ie net advertising revenue for the commercial channels, subscription

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<sup>20</sup> *Film on UK Television 2011*, BFI

revenues for the pay-TV channels and the proportion of licence fee applied to television programmes on the BBC channels multiplied by the percentage of broadcast hours for feature film.

Of this £1.4 billion, around £308 million could be attributed to the core UK film industry on the basis of the proportion of films shown on TV that were UK films. However, about half of that contribution would already be 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 £154 million of GDP in 2011 by supporting the TV industry.

## 5.6 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 £469 million<sup>21</sup>. Overall, the total tax contribution – including direct, indirect and induced impacts – to the Exchequer was £967 million in 2011.

**Table 5.2: Estimates of the total tax contribution, 2011**

<b>Impact</b>	<b>£ million</b>
Direct	488
Multiplier	469
<b>Total</b>	<b>967</b>

Source: Oxford Economics estimates

## 5.7 Summary

The core UK film industry from direct and multiplier impacts are estimated to support 87,800 FTE jobs, and a value added contribution to GDP in the region of £3.2 billion.

The core UK film industry supports other industries 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.

<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.

## 6 Promotion and Trade

### Key Points

- The UK film industry is a significant contributor to the UK net trade position, with export earnings averaging over £1 billion a year since 2000, and they were particularly high in 2010 at £2.1 billion.
- 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.
- Despite an impressive trading record the major external markets for the UK film industry are the USA and European Union and given global trading patterns the industry must actively look at diversifying its export markets for long term sustainability.
- UK films also help to boost the demand for UK products by promoting the 'UK brand'. The growing market for product placement in UK films provides an outlet for exporters to advertise their specific products to a wide audience. The Opening Ceremony of the 2012 Olympic Games, directed by Danny Boyle, demonstrated the role film can play in showcasing UK identity. These promotional benefits are estimated to be worth around £56 million a year to UK GDP.

### 6.1 Introduction

The film industry also contributes to the UK economy through its impact on UK overseas trade. The focus on exports continues to drive the UK government's growth agenda with the aim to double exports to £1 trillion by 2020, driven by sales to high growth markets such as the BRIC countries and other developing markets. The UK's biggest export markets are Europe and the US by a large margin, which continue to experience sluggish economic growth. Increasingly products and services exported by the UK must take advantage of the booming consumer wealth and appetite for western products and brands evident in developing markets.

The film industry's impact on international trade is through 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 and, potentially, explore new emerging markets. The rest of this chapter addresses both of these points.

### 6.2 Direct UK trade in film

The film industry is a significant contributor to UK export earnings. In 2010 (the most recent data) total exports of the film industry were £2.1 billion (Chart 6.1), which was a record high and was over £630 million more than the 2009 figure and higher than exports from the television industry (£1.7 billion). And, importantly from an economic point of view, the value of film imports in 2010 was only £500 million – so UK film made a very high net contribution of £1.6 billion to the UK trade position. The average net trade contribution since 2000 is £383 million (including 2010 record figure).

The core UK film industry's share of total UK exports (at just under 0.5% in 2010) is around 0.3% higher than 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. The rise in exports seen in 2010 is exceptional and it will be interesting to see if the high exports of recent years can be sustained over the next few years.

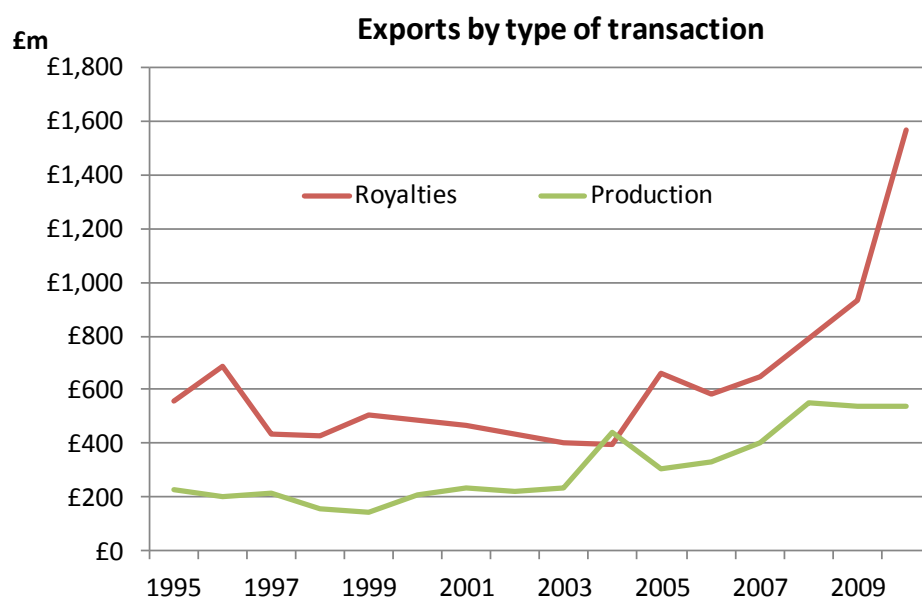
**Chart 6.1:**



Source: ONS

By far the largest contribution to UK film export earnings comes from royalties, which were £1.6 billion in 2010; whilst production revenues at £541 million are also important. There is a lack of detail around royalties which come from three main sources: higher earnings from sales of UK films, more studio royalty being attributed to the UK and more earnings on library titles.

**Chart 6.2:**



Source: ONS

### 6.2.3 International trade by market

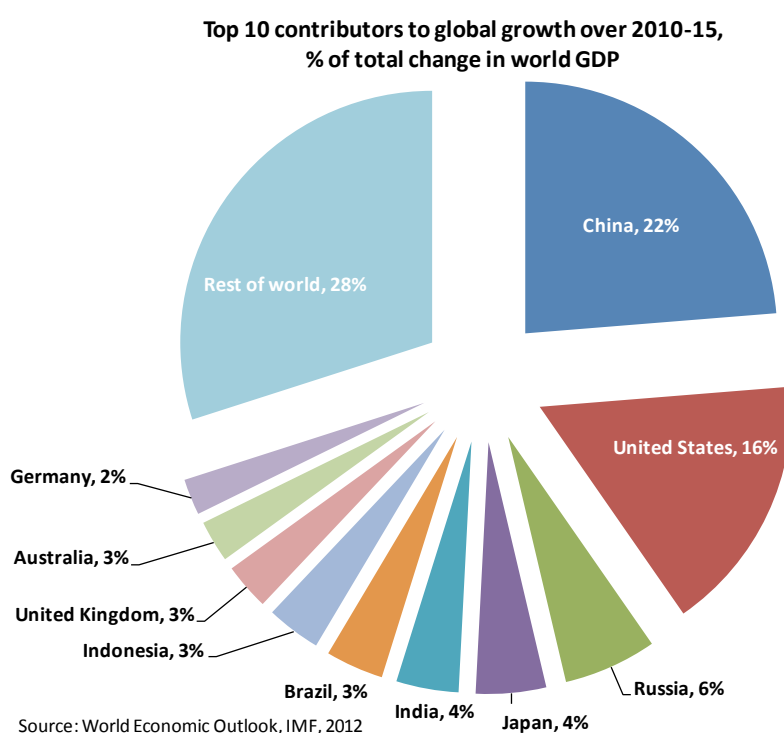
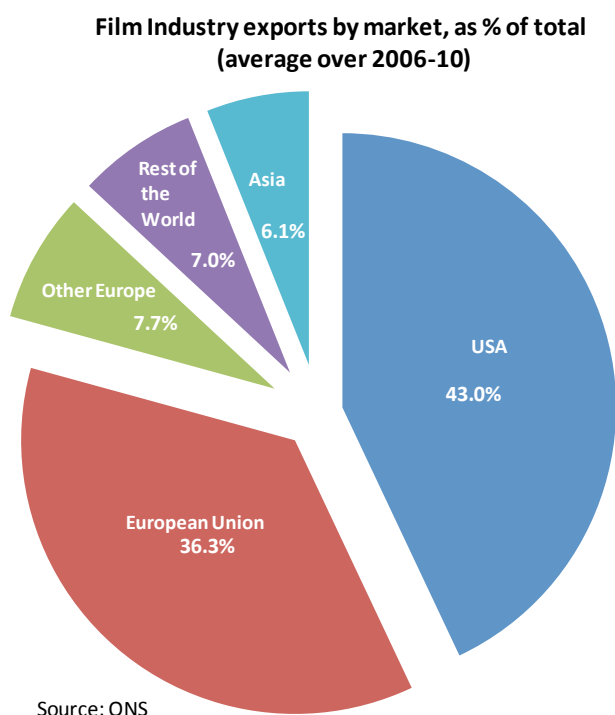
Currently the vast majority of the UK film industry's trading is with the USA and the European Union (Chart 6.3); accounting for 43% and 36.3% of total exports respectively. This contrasts to the geographical distribution of the global filmed entertainment market, which excluding the UK can be split as: EU (20%), Other Europe (4%), USA (38%), Asia (22%) and the Rest of the World (16%)<sup>22</sup>. Clearly the UK film industry's exports are underrepresented in countries outside of Europe and the USA, which partially reflects the strength of the main Asian countries (China, India, Japan and South Korea) in their own markets, and the consequent lower market shares for Hollywood and UK films.

The major emerging powers of Asia, Latin America and the Gulf have been the fastest growing in recent years and are recovering more quickly from the economic crisis than others. According to the IMF's latest World Economic Outlook<sup>23</sup> over 2010-2015 the BRIC economies alone will account for over 35% of world growth in GDP (Chart 6.4).

These numbers suggest substantial opportunities for UK film, which should look at ways to diversify and grow its export base to emerging economies to take advantage of new and rapidly growing sources of demand for its products and services.

**Chart 6.3:**

**Chart 6.4:**



The UK Creative Industries must work together to exploit emerging global opportunities presented by the digital age, as noted in a recent Global Summit for the Creative Content sector by Ed

<sup>22</sup> Using ONS and PricewaterhouseCoopers statistics (supplied by BFI)

<sup>23</sup> World Economic Outlook : Growth Resuming, Dangers Remain, April 2012

Vaizey, Minister for Culture, Communications and Creative Industries<sup>24</sup>: “[the] UK is well placed to grasp the enormous potential for growth presented by the digital age. New technology is providing people with far more ways to access and consume content when and where they want, and the UK’s creative content producers have never had greater opportunity to grow into new markets and directly reach new customers with the content they produce.”

In light of this the British Film Commission (BFC) and UK Trade & Investment (UKTI) are forming a partnership that provides an additional £400,000 to the BFC’s budget over the next two years to enable the BFC to maximise its global impact and effectively extend its remit to global territories and capitalise on potential opportunities with emerging markets, through UKTI’s existing international network.

BFI’s international strategy will be part of the organisation’s forthcoming Future Plan 2012-17 and will aim to drive forward an ambitious but realistic number of shared priorities which sustain the UK’s ability to attract inward investment films from the US and identifies a small number of priority territories where with some additional resources and collective action British film can make a greater impact.

### 6.3 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 and South Korea 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>25</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>26</sup> found evidence of country of origin effects, through their influence on perceived product quality.
- Heslop et al (2005)<sup>27</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.

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<sup>24</sup> <http://www.ukti.gov.uk/uktihome/home/item/347460.html>

<sup>25</sup> Source: 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>26</sup> Source: 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>27</sup> Source: 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.

- Arpan and Sun (2006)<sup>28</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>29</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 shaping and reinforcing notions of UK identity that may then help to underpin overseas sales of UK products. Recently on visiting Pinewood Studios, Mr Li Changchun, member of the Standing Committee of the Political Bureau of the Communist Party of China, commented that “British films are more compatible with Chinese values”.

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)<sup>30</sup>. The initiative offers support, information, advice, networking opportunities and development grants to cultural organisations in China and the UK, aiming to build long lasting relationships and to develop exciting cultural collaborations between organisations in the two countries.

For the UK, one of the most important areas to benefit from these sorts of brand effects is tourism (covered in Chapter 9). But UK exports of manufactures and other services may also benefit from a UK brand effect. Particular films can have an influence on UK trade in general – for example, one study noted how Gwyneth Paltrow in *Sliding Doors* had an impact on fashion in the 1990s<sup>31</sup>. More recently, the film *Slumdog Millionaire* has further boosted interest in the *Who Wants to be a Millionaire?* TV show, already a successful British export. The Opening Ceremony of the 2012 Olympic Games, also directed by Danny Boyle, demonstrates the role film can play in showcasing UK identity.

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. Of the top 200 worldwide grossing films over 2001-12, 12% have either been premiered or co-premiered in the UK<sup>32</sup>.

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 was set to grow

<sup>28</sup> Source: 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 3, pp 189-214.

<sup>29</sup> Source: 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.

<sup>30</sup> For further information see: <http://ctc.britishcouncil.org.cn/>

<sup>31</sup> Source: Sarah Gilligan (2001) in Engelmeier and Engelmeier, “*Fashion in Film*”.

<sup>32</sup> Source: BFI, *Top 200 Grossing films at World Box Office*.



by some 20% a year thereafter<sup>33</sup>. For example, Apple alone spent over \$24 million to appear for more than five total minutes in *Mission Impossible 4* (17% of the total cost of the film). 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. For example, in a consumer survey by the website brandchannel.com, the most positive and 'convincing' brand association within any film worldwide in 2008-09 was found to be that between *Quantum of Solace* and British sports car firm Aston Martin<sup>34</sup>.

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 £14 million extra profits in 2011. With gross trading profits across UK companies averaging about 25% of value added<sup>35</sup>, this implies additional value added of at least £56 million a year.

## 6.4 Summary

The core UK film industry is a significant contributor to the UK net trade position, with a trade surplus averaging £383 million a year since 2000. Indeed, the film industry's 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 £56 million a year.

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<sup>33</sup> Source: PQ Media, <http://www.prwebdirect.com/releases/2007/3/prweb511540.htm>

<sup>34</sup> Source: Brandchannel.com, [http://www.brandchannel.com/features\\_effect.asp?pf\\_id=489](http://www.brandchannel.com/features_effect.asp?pf_id=489)

<sup>35</sup> Source: Annual Business Inquiry, ONS.

## 7 The Impact of Film Tax Relief

### Key Points

- The Film Tax Relief is vital to sustaining the competitiveness of the core UK film industry. With the incentive in place, we expect the core UK film industry to attract between 6% and 8% of global film production over the period to 2015, with spend on inward investment productions maintaining or bettering its record 2011 level of £1 billion per year.
- The Film Tax Relief is important in putting the UK film industry on a level playing field with its global competitors, enabling it to generate the economic and cultural benefits highlighted in this report. There is broad consensus that the stability of the Film Tax Relief provides the industry confidence needed to invest in facilities and small independent film. This has been demonstrated by recent investments including capital investment of approximately £63m by Pinewood since 2007 and Pinewood Films third independent British production *Belle*.
- Without the Film Tax Relief, we estimate that the core UK film industry would be around 70% smaller, which would be equivalent to an average loss of total UK production of £600 million a year over 2012-2015, of which at least £500 million would be inward investment.
- Furthermore this loss of competitiveness would be at a cost of around £1.3 billion of lost GDP a year and about £370 million lower Exchequer revenues.

### 7.1 Introduction

With Film Tax Relief in place, 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, and subsequently by the House of Lords Select Committee on Communications when it reviewed the UK film and television industries in 2010<sup>36</sup>. Film Tax Relief was extended at the end of 2011 to 2015 following the extension of the European Commission's (EC) State Aid approval of the Government's application to extend the duration of the scheme. As noted by Film Minister Ed Vaizey, at the time of the announcement, "*Film Tax Relief is at the heart of our drive to support the production of culturally British Films within a sustainable and vibrant industry*".

The EC is currently drafting a revised Cinema Communication. At the time of writing, the draft Communication is under discussion between the European film sector, European governments and the Commission.

By March 2011, the scheme had provided a total of over £570 million of tax relief, supporting production of around 585 films<sup>37</sup>. 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.

The current Film Tax Relief came into force on 1 January 2007 and is based on an enhanced deduction from taxable income for film production companies that can be converted into a payable

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<sup>36</sup> Source: House of Lords Select Committee on Communications, *The British Film and Television Industries: Decline or Opportunity?*, 1<sup>st</sup> Report of Session 2009/10, January 2010.

<sup>37</sup> Source: Film Tax Relief: Summary of Tax Credit Claims: 2006-07 to 2010-11, HM Treasury. The latest figures available.

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, and films must pass a 'cultural test' administered by BFI on behalf of DCMS which considers the nature of the film's story, setting, characters and contribution to cultural diversity (see Section 3.2 for more details). Films can also qualify as British if they are certified under the various official UK co-production agreements: once certified, a film counts as a national film in each of the territories and may qualify for public support on the same basis as national films in that territory<sup>38</sup>.

### 7.1.1 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 10, 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.”*<sup>39</sup> 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, Film Tax Relief plays a key role in attracting large, internationally mobile productions from the USA to the UK and Europe. Competition to attract film producers to shoot films in North America and non-European destinations, and also to undertake post-production work in fields such as sound and visual effects, 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. The UK is also attractive because of its legal and business environment: we score highly on both the Corruptions Perceptions Index 2011<sup>40</sup>, ranking 16<sup>th</sup> least corrupt place in the world and on the Ease of Doing Business Index<sup>41</sup>, ranked 7<sup>th</sup>

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<sup>38</sup> At the end of 2009 the UK had seven active bilateral treaties with Australia, Canada, France, India, Jamaica, New Zealand and South Africa, as well as being a signatory to the European Convention on Cinematographic Coproduction.

<sup>39</sup> Source: HM Treasury (2005), *Reform of film tax incentives: Promoting the sustainable production of culturally British films*, July 2005.

<sup>40</sup> *Corruption Perceptions Index 2011*, Transparency International, 2011

<sup>41</sup> For further information see *Doing business in a more transparent world*, The World Bank and IFC, 2012

in the world. These advantages help ensure that the UK remains a major player in the global film industry.

But a key element is the availability of tax relief. The use of the tax system to support film production is widespread, including in individual US states and countries that benefit from lower labour and other costs, such as South Africa and New Zealand. New studio complexes are being developed around the world such as Cape Town Studios in South Africa, Docklands in Melbourne, Trump Studio City in Florida and Russia World Studios. In South Africa there have been amendments to the foreign film and television incentive scheme to support the country's growing post-production industry, aimed at attracting more filmmakers and investment into the country.

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 global locations in attracting both inward investment productions and subsequent post-production work.

The ability of fiscal support to support the European film economy is evidenced elsewhere in Europe too – for example, *The Artist* was a French film produced by French production firms and with support from French TV but it also received Belgium fiscal support for the music elements. The film has gone on to be internationally acclaimed winning five Academy Awards and showcasing the talent of both countries for filmmaking.

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

A 2008 report for the British Film Commission<sup>42</sup> helped to shed light on the relative cost competitiveness of the UK for film production against other locations around the world. This suggested that, based on a professional budgeting exercise using 2007/08 data, the Film Tax Relief made the UK a highly competitive choice for international filmmakers. Without the relief in place, the UK was more expensive than a significant number of competitors to make a high-budget film, including Ireland, Australia and South Africa. With the relief in place, however, this was no longer the case and film production in the UK was relatively competitive.

Of course, the landscape for film production budgeting is not fixed; and since 2008 the UK's competitiveness has come under new threat from a series of increasingly generous incentives offered by non-EU territories, particularly those in Canada and the US States. A similar analysis in 2012 would be likely to find the advantage provided by the UK Film Tax Relief to be smaller than in the past, given the more generous schemes now on offer elsewhere.

Repeating an exercise we undertook in the previous versions of this report, we have updated and extended the detailed modelling involved in the Olsberg/BFC study referenced above. We have extended the competitiveness comparisons by projecting the estimates of cost differentials in the 2008 study back over time and forwards to 2015 using Oxford Economics' global forecasts. In this report we focus on the US and South Africa as comparator countries.

Our projections are based on the following assumptions:

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<sup>42</sup> Source: Olsberg SPI, *A Comparison of the Production Costs of Feature Films Shot in Ten Locations Around the World*, report for the Office of the British Film Commissioner, September 2008.

- 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 sound recording industry from the US Bureau of Labour Statistics. For South Africa we have used average wages in the recreational, cultural and sporting activities sector, available from the International Labour Organisation (ILO).
- 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 South Africa, similarly we assume 90% of the budget is spent locally and 10% reflects US 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.
- The global production figures are based on a time series from IHS Screen Digest covering 1995 to 2010, which have been forecast to 2015 based on forecasts relating to the filmed entertainment market<sup>43</sup>. We assume that the UK production share to be in line with the IHS Screen Digest figures (rather than BFI figures referenced earlier) and from 2012 onwards grow in line with the UK's share of the filmed entertainment market.

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<sup>43</sup> Using PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates figures.

Chart 7.1

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

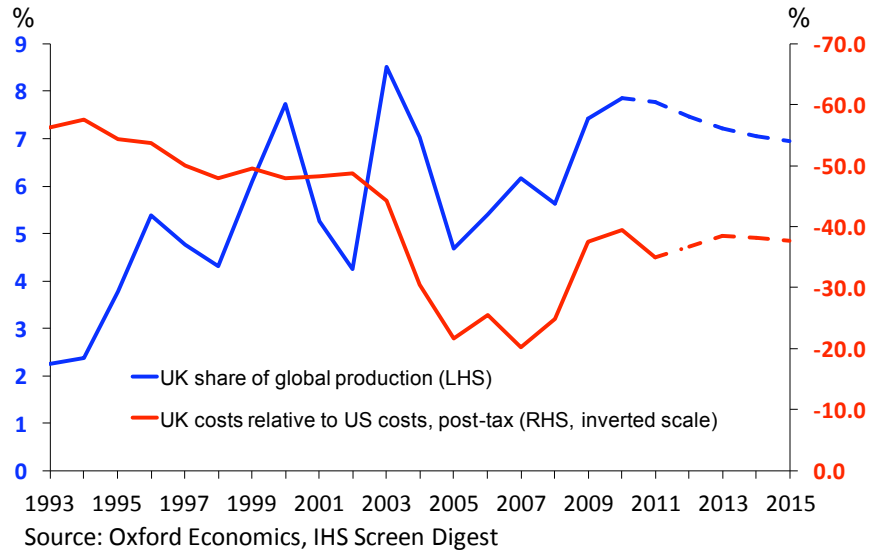
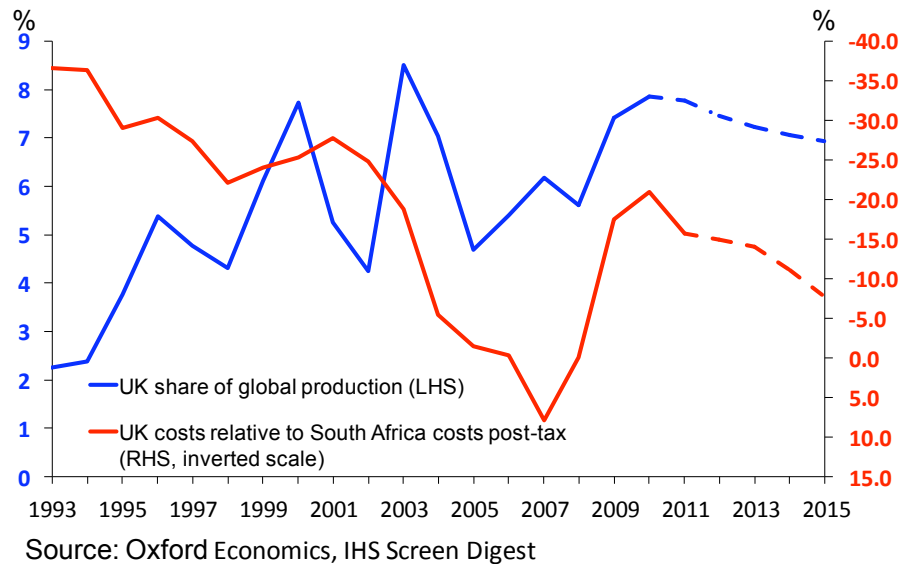


Chart 7.2

**UK-South Africa relative film costs and UK's share of global film production**



Charts 7.1 and 7.2 show the relationship between the measures of post-tax cost competitiveness we have developed and the UK's share of global IHS *Screen Digest* 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 cost 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 relief 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 tax relief via Section 42, the marked appreciation of sterling vis-à-vis the dollar and uncertainty over the future of Film Tax Relief 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.
- More recently, film production has recovered in the UK averaging 6.7% since 2005, supported by the new Film Tax Relief and also since 2008 by the weakened value of sterling, which has significantly increased the UK's cost competitiveness relative to elsewhere. Over the last three years in particular there has been a strong increase in the value of UK production; averaging £1 billion over 2008/2010 using the IHS *Screen Digest* figures (an average global production share of 7%).

In our 2009 report, we showed how the Film Tax Relief would reduce the costs of producing a film in the UK relative to those in its competitor countries. Our updated analysis shows that in 2012 UK film costs were some 38% lower than those in the US, and 15% lower than those in South Africa. Although the effect of the Film Tax Relief has continued to be strongly augmented by the depreciation of the sterling (from 2009 onwards) the recent inward investment figures would also suggest that the fiscal certainty offered by the Film Tax Relief has been important in persuading producers to invest in the UK. Our projections suggest that these favourable cost differentials could remain until at least 2015, and on this basis we expect the core UK film industry to attract around 8% of global film production over the period to 2015; with spend on inward investment productions remaining at or above its 2010 level of £1 billion per year. This should underpin a continuation of the long-term trend expansion seen in the core UK film industry, a trend reflected in the current investment plans of the UK studios we have spoken to as part of this study. Production managers have emphasised that the fiscal certainty of the tax regime is the most important factor in planning future investments in the UK which rely on the UK maintaining its competitiveness for film production. The certainty of the fiscal regime has been an important factor for recent major investments, including that by Warner Bros. at Leavesden.

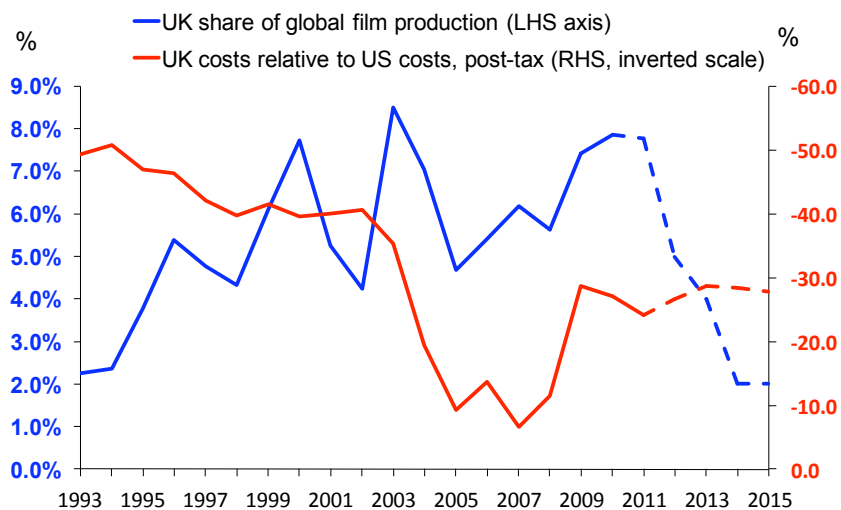
In the absence of Film Tax Relief, our analysis indicates that the UK's cost advantage vis-à-vis the US would be less than 28% up until 2015, and UK costs would be over 10% higher than those in the South Africa by 2015 (Charts 7.3 and 7.4). The cost calculations are heavily influenced by exchange rate fluctuations but the difference between the relative costs when compared to Charts 7.1 and 7.2 demonstrates the underlying influence of the Film Tax Relief in enhancing competitiveness and its important role in facilitating a successful film industry in the UK. Furthermore the UK would almost certainly lose its image as a credible film-making destination in the eyes of foreign producers if it did not attempt to match the increasingly aggressive approaches

to capturing production spend adopted by many non-EU states, particularly those in South Africa, Canada and the US, through the deployment of financial incentives.

We have assumed, based on our discussions with UK production companies, that a loss of competitiveness of this nature could reduce the UK's share of global film production by around 6 percentage points by 2015, from 8% in 2012 to 2% in 2015. That would be equivalent to an average loss of total UK production of £700 million a year over 2012-2015, of which at least £560 million would be inward investment (assuming that inward investment accounts for the same proportion of production as in 2011). Overall UK film production might be reduced by at least 71% by 2015, were the Film Tax Relief to be abolished.

Chart 7.3

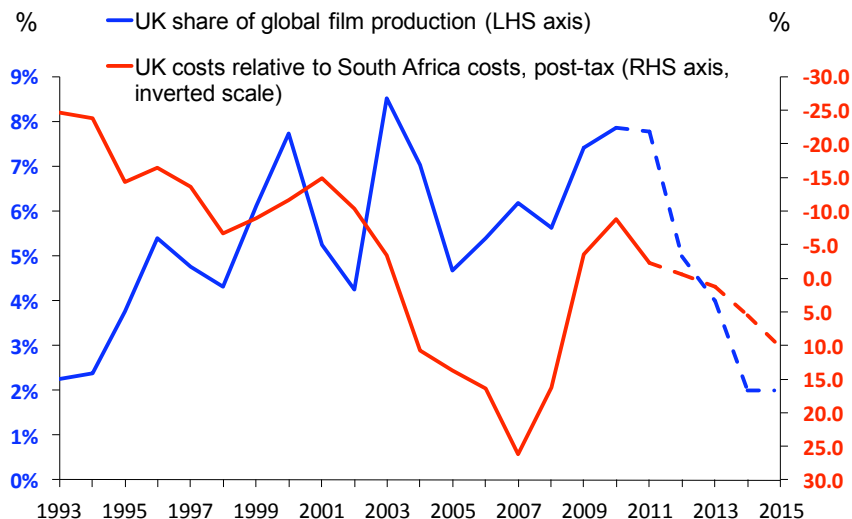
**UK-US relative film costs and UK's share of global film production - no tax credit**



Source: Oxford Economics

Chart 7.4

**UK-South Africa relative film costs and UK's share of global film production - no tax credit**



Source: Oxford Economics



### 7.3 The economic impact of Film Tax Relief

The Film Tax Relief is important given the stability it brings to the fiscal regime which facilitates long term business investment decisions. A decline in film production in the region of 71% would have substantial economic effects:

- It would reduce the direct contribution of the core UK film industry to GDP by about £1.2 billion and by £2.4 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 27,600 jobs directly and 55,200 jobs 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. This is perhaps even a conservative estimate, given the standard of living on offer in many emerging filmmaking destinations, such as Vancouver. As a result of this, UK GDP would be directly reduced by around £170 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 these impacts would result in UK GDP in the medium term reducing by around £1.4 billion a year.
- These losses in turn would reduce Exchequer tax revenues by about £430 million a year, taking account of multiplier impacts and effects on merchandising. That compares with an estimated cost of the Film Tax Relief to HM Treasury of around £114 million a year<sup>44</sup>.

### 7.4 Summary

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 non-EU countries seek to attract inward investment because of the economic and cultural benefits that the film industry generates. This level of competition is increasing, and encompasses both location filming and subsequent post-production work in fields such as sound and visual effects. The UK Film Tax Relief provides the basis for the continued growth of the core UK film industry: without it, the core UK film industry could be expected to be around 71% smaller at a cost of £1.4 billion of lost GDP a year and around £420 million of reduced Exchequer revenues.

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<sup>44</sup> Based on the average per annum payment from Treasury statistics over 2006/07 to 2010/11 (total of £570 million claims made)

## 8 Productivity – Skills, Education and Training

### Key Points

- Overall labour force productivity, as measured by GDP per full-time equivalent worker, has been rising steadily across the core UK film industry since the mid-1990s, and now stands at around £41,800.
- In the production sector, the workforce is well qualified. Some 70% of the workforce are graduates. This compares with, for example, 31% of the population of working age in the UK who are educated to degree level or above. Average gross wages in the UK production sector as a whole are around £32,500, significantly higher than the UK average across the economy of £26,100. Wages have fallen slightly over the last year which reflects the degree of wider slack in the labour market.
- Despite the relatively high graduate skills within the industry the recent research report NextGen by NESTA highlights that skill shortages affect the visual effects industry and that companies recruit international talent to cover the UK shortfall. The research highlights the importance of university courses being fit for purpose and the role that prior work experience could play in developing graduate level skills.
- As well as degree level or above skills the industry also relies on vocational and craft skills and the recent *Film Policy Review* highlighted them as a key area of focus, recommending the continued creation of apprenticeships and internships to cover craft and technical skills across the film sector.
- The level of diversity within the sector appears to be improving with a higher level of Black, Asian & Minority Ethnic (BAME) representation at 8% than across the wider Creative Media Industries (5%) but still slightly below the UK average (10%).
- There is widespread acknowledgement within the film industry itself that the skills base needs to be continually updated and developed to stay on the knowledge frontier. Indeed, boosting and updating skills in the core UK film industry was highlighted as a key priority in the Film Policy Review.

### 8.1 Introduction

This chapter looks at productivity in the core UK film industry and some of its key determinants such as the workforces' educational attainment, skills and training. As in our previous report the latest Film Production Workforce Survey (2010) undertaken by Skillset is used<sup>45</sup>, however, it should be noted from the outset that the survey approach differs significantly from previous iterations in 2005 and 2007. For instance the sample population includes employees as well as freelance crew, anyone who has said that they have worked in any capacity in the film production sector as opposed to anyone specifically on a film production crew list, and it has a wider coverage of films (including those with budgets of under £500,000). Finally, the empirical findings provide a key source of intelligence into the workforces' skills, education and training but should be treated

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<sup>45</sup> 2010 Film Production Workforce Survey, Skillset

with some caution as they are based on a sample size of 4.3% of the workforce. Therefore it should be noted throughout that comparison between 2010 findings and previous years is indicative only, direct comparison are not possible due to changes in methodology.

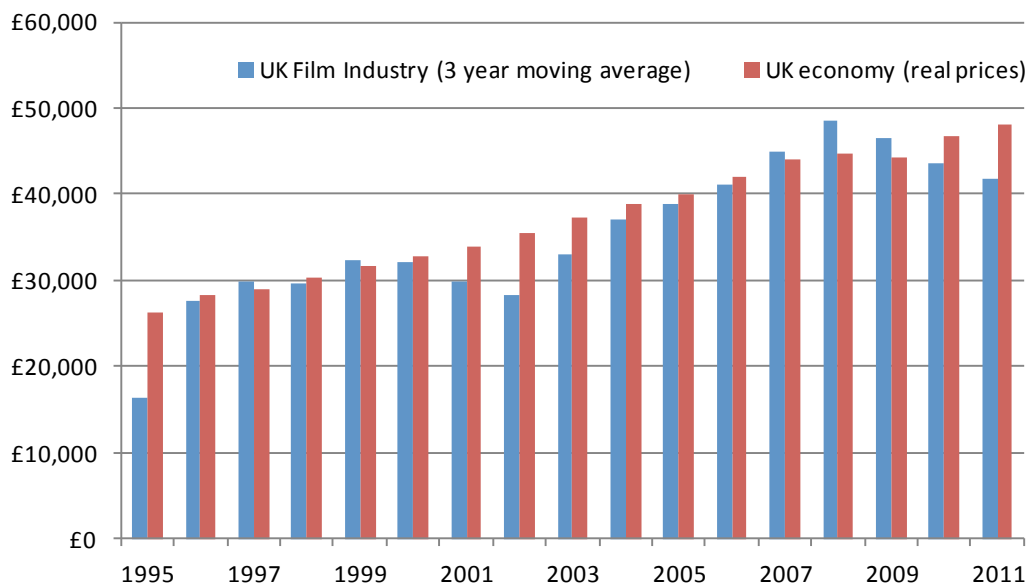
## 8.2 Productivity

Overall, there has been a clear upward trend in labour productivity across the core UK film industry since 1995, as measured in terms of GDP per FTE worker (Chart 8.1). In 2011, each employee generated around £41,800 in GDP, which was approximately 67% higher than the corresponding figure of the mid-1990s.

The fall in productivity over recent years in the core UK film industry is related to the steep rise in employment in 2009 (particularly production) and the low GDP data for 2010. As discussed in Chapter 4, this implies that the challenging macroeconomic environment may have impacted over 2009/10 with downward pressure on average wage levels and profit margins. Additionally, the rise in self-employment, which in many cases will be lower paid, especially if it is driven by start-ups unable to find paid employment, may have also contributed. In contrast the level of productivity in the UK economy has risen significantly over the last two years, due in part to labour shedding.

**Chart 8.1:**

### **Productivity levels - UK Film and UK economy average**



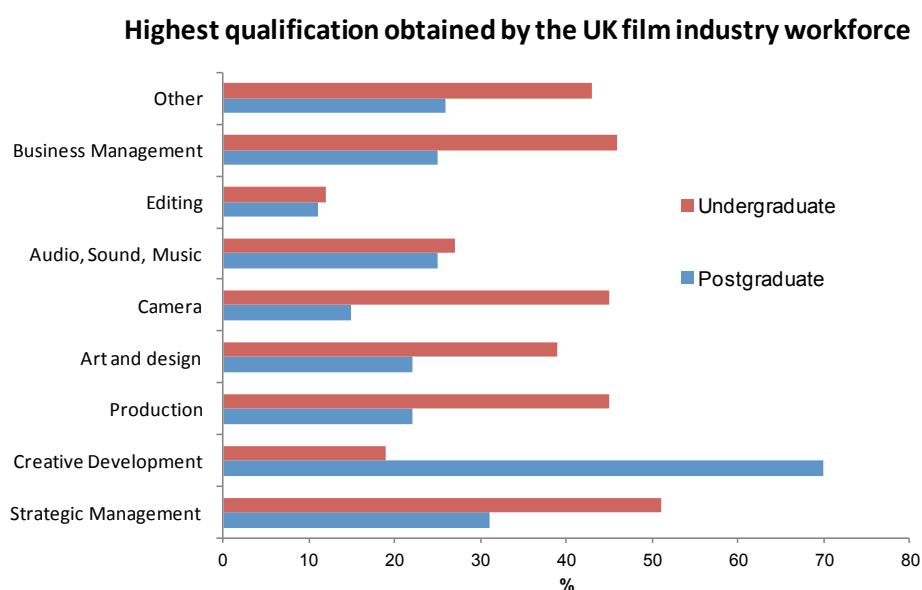
Source: CE / ABS/ ABI/ OE

### 8.3 Qualifications and demographics

A key finding from the current Skillset survey<sup>46</sup>, as well as past versions, 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:

- 70% of the workforce are university educated with either a postgraduate qualification (24%) or an undergraduate qualification (46%). This compares with, for example, 31% of the population of working age in the UK who are educated to degree level or above<sup>47</sup>.
- This rate represents a steady increase from 46% in 2005 and 56% in 2007, as recorded in the previous surveys. This is an impressive rate of growth but has been a consistent pattern from the Skillset surveys and fits with the wider UK economy, where the rate has risen from 26% in 2005 to 31% by 2010<sup>48</sup>.
- The Skillset data also suggest that a higher proportion of women are graduates than men (83% compared to 63%).

**Chart 8.2:**



Source: Skillset Film Production Workforce Survey 2010

Despite the relatively high graduate skills within the industry recent research by NESTA<sup>49</sup> highlights that skill shortages still exist in particular areas. The research reports that skill shortages are already jeopardising the visual effects industry's performance and that companies are relying on large numbers of international talent. The root cause of this shortage appears to be a mismatch between the supply and demand for new graduates in the industry, with employers reporting difficulties in filling vacancies where technical skills and wider business management skills are particularly important. Although the research only covers a sub-sector of the film industry it does

<sup>46</sup> 2010 Film Production Workforce Survey, Skillset

<sup>47</sup> Source: Annual Population Survey, NOMIS. Latest full year data is for 2010 incorporating all those employed to NVQ Level 4+.

<sup>48</sup> Source: Annual Population Survey, NOMIS.

<sup>49</sup> Nextgen, NESTA, 2011

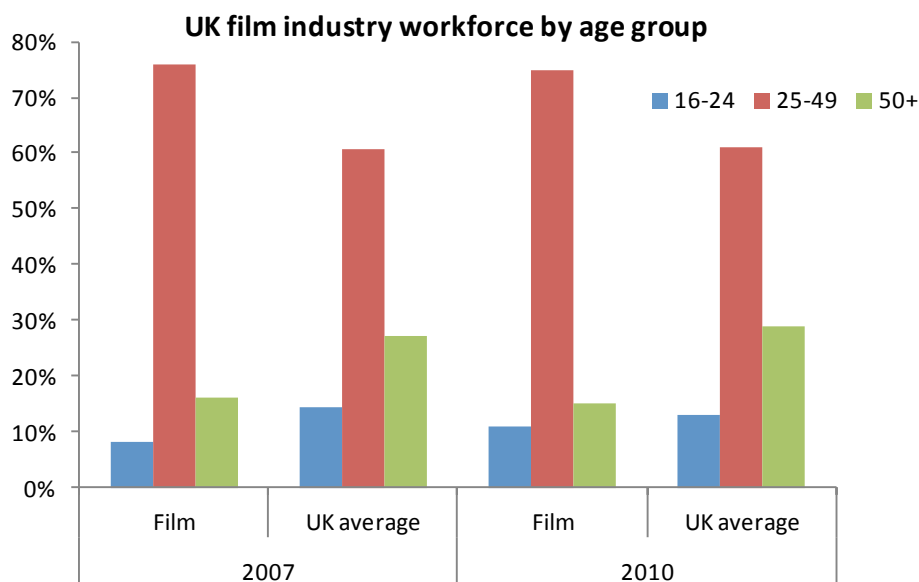
highlight the importance of university courses being fit for purpose and the role that prior work experience could play in developing graduate level skills.

The recent *Film Policy Review* also highlights technical and craft skills as a key area of focus, recommending the continued creation of apprenticeships and internships to cover craft and technical skills across the film sector. Overall the latest Film Production Survey reports that the main subjects of learning and skills development needs cited were computer skills in specific software packages (20%), specific technical or craft skills (17%), writing and copy editing (16%) and business development/commercial awareness (10%).

A number of apprenticeship schemes are being run or developed by production companies, including Pinewood, in response to industry skill needs. For example in 2009/10 Pinewood helped facilitate an apprenticeship scheme in association with Screen South and Skillset’s Film Skills Fund called ‘On The Lot’. During the year-long programme, each trainee received on-the-job training, working on major studio productions such as *Iron Man 2* and *John Carter*. They received specialist short course training and were able to gain an invaluable insight into their chosen role by shadowing some of the industry’s leading experts in the field. The trainees also benefitted from e-learning, mentoring, networking and production based training.

The majority of people do not enter the film industry until after they have secured a degree qualification (i.e. their early to mid-20s), and only 11% of the people working in the film industry are in the 16-24 age group compared to the UK average of 13% although this gap has narrowed since the last Skillset survey in 2007. The film industry is over-represented in the median 25-49 age group but has a much lower proportion in the 50+ age group (see Chart 8:3).

**Chart 8:3**



Source: Skillset Film Workforce Survey, 2010 and Annual Population Survey

According to the Skillset survey<sup>50</sup> the workforce is approximately two thirds male and one third female. This picture has changed little since the 2005 survey, although the 2007 survey saw a slight temporary shift towards employment of more women. In terms of ethnic representation<sup>51</sup> 8% of respondents indicated their ethnic origin as Black, Asian & Minority Ethnic (BAME), which is higher than that across the wider Creative Media Industries and that recorded in the 2007 survey (both 5%) but lower than the UK average of 10%<sup>52</sup>. It should also be noted that around half the sector is based in London in which the labour market is more ethnically diverse than across the UK as a whole. The 2012 *Film Policy Review* also highlighted that, in part due to the informality of its employment practices, the UK film industry has a tendency towards over-representation of white males and under-representation of women and people from diverse groups. Although the industry has become slightly more inclusive since the 2007 survey promoting diversity is a key challenge moving forwards and training and job opportunities must be made available to a diverse range of entrants; especially those from BAME backgrounds.

## 8.4 Wages and salaries

According to the Skillset 2010 survey, the average gross income per annum for workers in the UK film production sector was £32,500, slightly higher than the average across the Creative Media Industries of £30,550, but lower than the average income recorded in the 2007 survey, of £33,750. Average wages in the industry are significantly higher than the UK average for full-time employees of £26,100 (using the median wage)<sup>53</sup>. Occupational wages in the film industry are not fully captured in the survey but from the data available it appears the highest wages are within Strategic Management and Art & Design (Chart 8.4).

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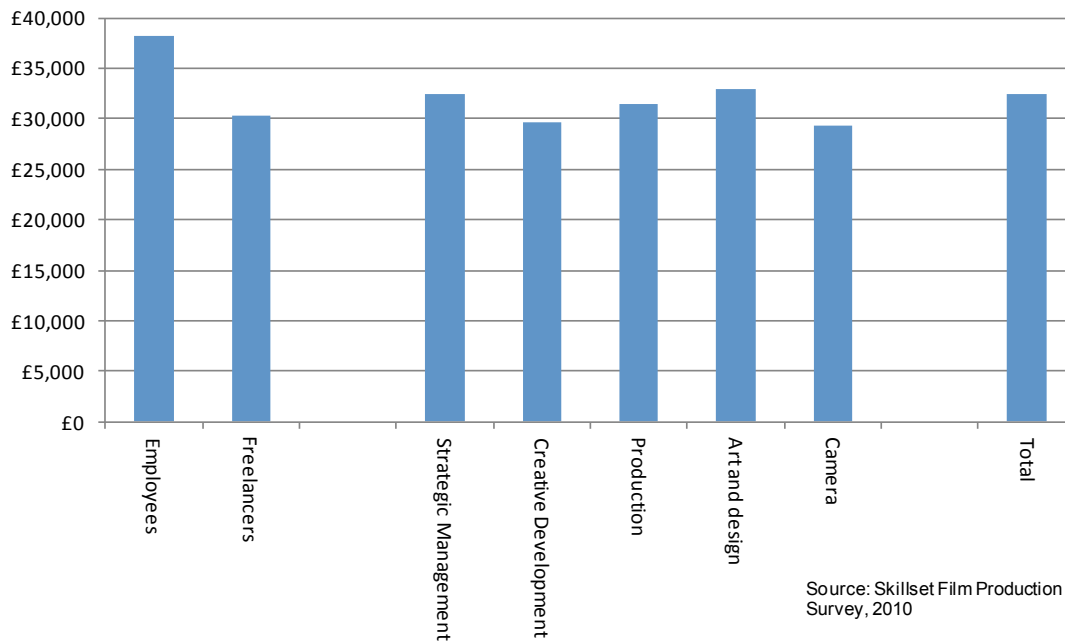
<sup>50</sup> There have been various investigations by Skillset to understand if the sample distribution (by geography, age and occupation) can explain key demographic changes (particularly diversity and gender characteristics), however, no obvious factors explain the changes but the results should still be treated with caution given the sample size and changes in methodology.

<sup>51</sup> Direct comparisons across the survey should be treated with caution given the sample size and changes in methodology.

<sup>52</sup> Using proportion of workforce of ethnic origin from the Annual Population Survey, 2011

<sup>53</sup> Source: Annual Survey of Hours and Earnings, ONS 2011

**Chart 8:4**  
**Average income in the past 12 months by key employment variables 2010**



An alternative source of salary data is the Annual Survey of Hours and Earnings, from ONS, although there are some limitations with this data as it only covers employees, production wages for film and TV combined and there are no data for distribution activities, it does provide further evidence of the substantial wage premium within the UK film industry. For example, within TV and Film production activities, median annual wages are around £37,000- £39,000 compared to £26,100 in the whole economy.

**Table 8.1: Median full time average wages in SIC 59**

	2011	2010	2009	2008
Film industry:				
5911: Motion picture, video & television programme production activities	£37,700	£38,400	£34,400	£34,300
5912: Motion picture, video & television programme post-production activities	£39,700	£37,900	n/a	£42,300
5914: Motion picture projection activities	£19,000	£16,900	£16,400	n/a
UK average	£26,100	£25,900	£25,800	£25,200

Source: Annual Survey of Hours and Earnings, Full time employee median wages, ONS, 2008/2011

Both data sources indicate that wages have fallen slightly over the last year which reflects the general stagnation of wages in the economy. 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. The latest survey does not provide any data on levels of unemployment in the sector to update previous figures however when respondents were asked why they had become freelance one of the main reasons, at 36% of all respondents, was that it 'was the only work available'. This also supports the data presented in Chapter 4 which show a rapid increase in self employment levels since 2009.

## 8.5 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 (pre-production/production/post-production) workers. 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. In fact, a significant proportion of the workforce in the Skillset survey, at 14%, was cited as working outside the UK.

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 25-49 age group and from previous data this is likely to be concentrated in the 25-35 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.

As highlighted in our previous reports there are a number of other key factors that will influence the mobility of labour in the film industry, including:

- **Higher skill levels.** 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. In our previous report we demonstrated a strong correlation between wages and qualifications<sup>54</sup>.
- **Nationality.** The core UK film industry attracts many highly skilled foreign workers to the UK, particularly in sectors such as visual effects, where firms compete internationally for the best talent and the proportion of foreign workers, estimated to be around 30%, is higher than for the audio-visual industries as a whole<sup>55</sup> (previous consultations with the leading firms in this sector suggest that workers from other EU countries, such as France and Germany, account for the majority of overseas labour).

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 film industry that these skills need to be continually updated and developed to stay at the knowledge frontier. Indeed, boosting and updating skills in the core UK film industry was highlighted as a key priority in the *Film Policy Review*<sup>56</sup>.

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<sup>54</sup> Unfortunately the data on wages by skills is no longer available in the updated Film Production workforce survey.

<sup>55</sup> Finding from previous 2009 report (average compared to that of the audio-visual industries as a whole, Source: *UK Audio-Visual Facilities Economic Report*, for UK Film Council and UKTI, 2009).

<sup>56</sup> Source: *A Future For British Film – It begins with the audience*, *A UK Film Policy Review*, DCMS, January 2012



## 8.6 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.

The current macroeconomic climate in the UK is having an effect on the core UK film industry with wages in 2011 slightly lower than previous years, although levels remain well above the UK average.

## 9 Tourism

### 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. Films can increase visitor numbers and support investment in refurbishments and expansion at specific attractions.
- While there is limited robust statistical data quantifying the value of this impact, the available evidence suggests around a tenth of UK tourism may be attributable to the impact of UK films.
- On this basis we estimate that around £2.1 billion of visitor spend a year might be attributable to UK films.
- In 2011, this additional spending is estimated to be worth £1 billion to UK GDP and £230 million to the Exchequer

### 9.1 Introduction

The phenomenon of films encouraging viewers to visit the country or site where they were shot – often labelled ‘film-induced tourism’ or ‘movie-induced tourism’ – has been widely discussed in academic literature and is now both well-documented and well-evidenced as a concept. Tourism authorities across the world are firmly 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.

Tourism, as one of the UK’s most important industries is vital to the economy and has been consistently highlighted by the Coalition government as a key contributor to the economic recovery. Besides providing £35 billion of UK GDP and 4.1%<sup>57</sup> of all jobs it generates significant exports (inbound tourism) and provides employment to many rural communities. The government aims to increase tourism numbers to Britain by 4 billion by 2015, generating £2 billion worth of extra visitor spending.

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.

### 9.2 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, which can in turn trigger investment in refurbishments and expansion at specific attractions. 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,

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<sup>57</sup> Source: *Travel & Tourism Economic Impact 2012 UK*, WTTC

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>58</sup>.

The overall impacts that film makes to tourists' choices of destination can be significant. For example, in 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.

### 9.3 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 9.1). 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 at £35 a time.

Another famous example is the Lord of the Rings trilogy which has helped promote tourism in New Zealand – which has become synonymous with Tolkien's 'Middle Earth'. According to Tourism New Zealand, the films not only showcased the country's dramatic scenery and landscapes but also helped position it as a more 'mainstream' destination for international visitors, overcoming a considerable barrier in the minds of many prospective holidaymakers. New Zealand experienced a 17% increase in visitor spend the year after the release of the first *Lord of the Rings* film in 2001, and the acclaimed trilogy is credited as playing a significant part in the 40% rise in average annual visitor numbers witnessed since the late 1990s. Tourism New Zealand, alongside tourism businesses, are now gearing up for another wave of 'Ring' fever with preliminary work underway on three movies that will form the trilogy's much anticipated prequel, *The Hobbit* (Parts 1, 2 and 3 are expected to be released in December of 2012, 2013 and 2014 respectively).

The Swedish Millennium films have promoted Stockholm as a tourism destination with tourists visiting the locations associated with the films. A recent economic impact study estimates the exposure of the Stockholm region from the films to be worth 106 million Euros, which excludes books and the impact of the American Millennium film<sup>59</sup>.

Other examples of substantial numbers of tourists visiting sites where film have been shot include the Swiss Alps, whose use for location filming in many Bollywood films has inspired more than 250,000 Indian tourists a year to visit (the main restaurant at the Jungfrauoch, the highest railway station in Europe and the top tourist attraction in Switzerland, is now an Indian curry-house); the town of Forks in Washington, USA, which has seen hotel nights increase by 1000% since the Twilight Saga; wineries in the Santa Barbara region of California, which were promoted via a detailed map of locations from the film *Sideways* that successfully increased tourist numbers by 300%<sup>60</sup>; and also Ireland, where survey research suggests that 18% of overseas tourists in 2009

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<sup>58</sup> Source: TRI, "Tourism: Keeping up with the Indiana Jones"

<sup>59</sup> Source: *The Millennium Report: Economic impact and exposure value for the Stockholm region in the Swedish Millennium feature films*, Cloudberry Communications, April 2011

<sup>60</sup> Source: MPAA, "The Economic Impact of the Motion Picture and Television Industry on the United States", April 2009.

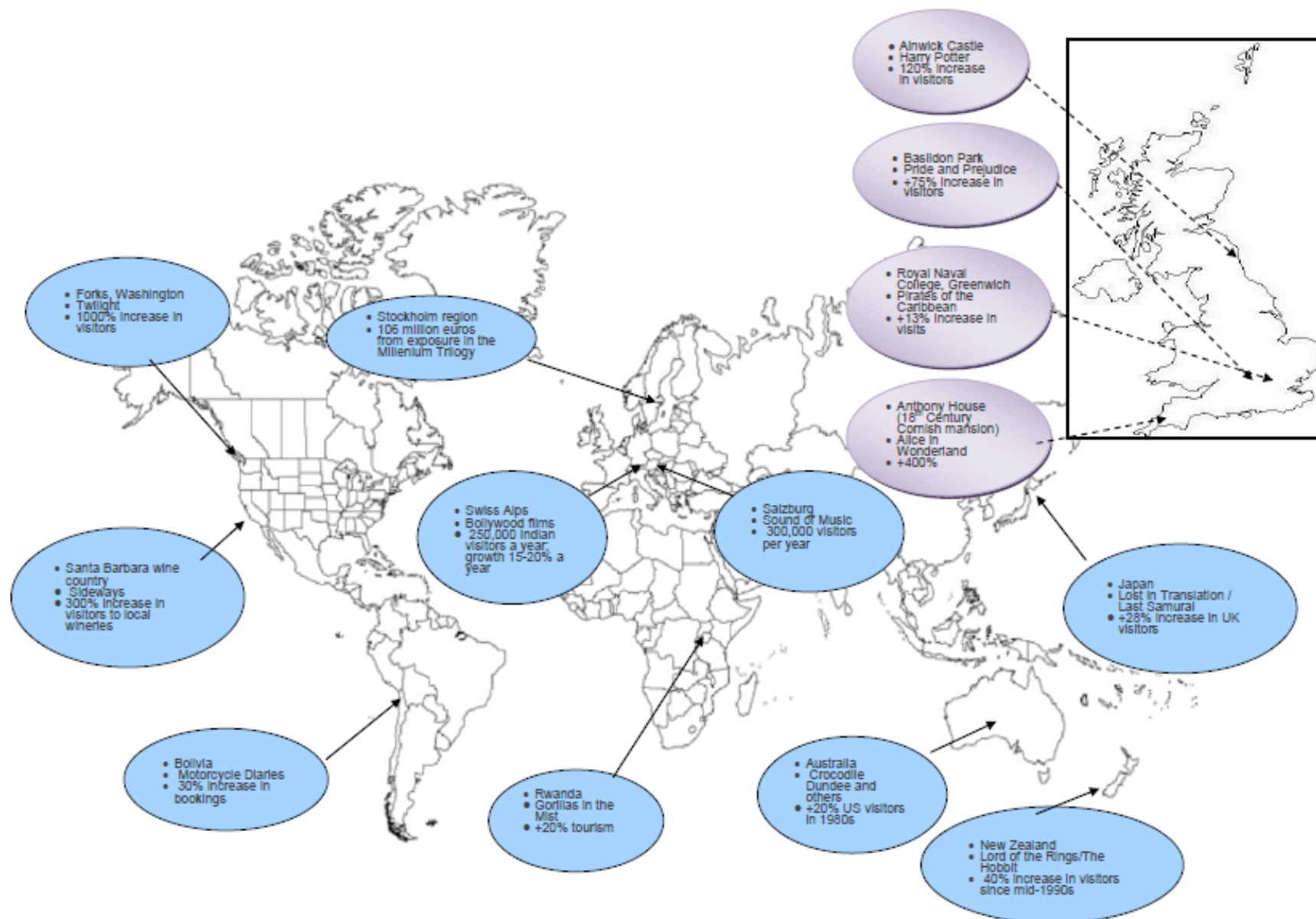
were influenced to some extent in their decision to visit by films they had seen<sup>61</sup> (indeed, the popular image of Ireland packaged and sold for many years by the Irish tourist board has been traced back to the way it was presented in iconic films such as John Ford's *The Quiet Man*).

Other global examples of the film tourism effect include Bolivia, which experienced significant increases in tourist numbers following the release of *The Motorcycle Diaries*; Australia, which saw *Crocodile Dundee* and other films boost visits to the country in the 1980s; and Japan, which benefited from the popularity of *Lost in Translation* and *The Last Samurai*.

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<sup>61</sup> Source: *Failte Ireland Visitor Attitudes Survey*

Figure 9.1: UK and global examples of the impact of films on tourism



## 9.4 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 in Northumberland saw a 120% increase in visitors following its appearance in *Harry Potter and the Philosophers Stone* and *Harry Potter and the Chamber of Secrets*. Basildon Park near Reading saw a 75% increase in visitor numbers following its use in *Pride and Prejudice*, while Chatsworth House in Derbyshire added 10% to its annual haul of 500,000 visitors following the same film. Recently, *Pirates of the Caribbean: On Stranger Tides* film led to a 13% increase in visits to the Old Royal Naval College in Greenwich and following the latest Robin Hood film total visits to Nottingham increased by 5.5%. After appearing in Tim Burton's film version of *Alice in Wonderland*, Antony House, the National Trust-run 18th century Cornish mansion, saw visitor numbers quadruple from 25,000 to nearly 100,000 in the summer of 2010.

### Box 9.1: Sizing the contribution of Harry Potter

The Harry Potter franchise has promoted UK tourism since the early instalments, *Harry Potter and the Philosopher's Stone* and *Harry Potter and the Chamber of Secrets*, released at the turn of the millennium. Warner Bros., who made the films, worked closely with Visit Britain from the outset to supply the key locations of particular scenes, which were then incorporated into Movie Maps.

This ongoing link between the franchise and UK tourism has now been enhanced significantly by the opening of the Warner Bros. Studio Tour London – The Making of Harry Potter, a behind-the-scenes look at how the film series was created. The idea for the tour originated as part of the overall investment in studio capacity at Leavesden. Although likely to appeal more to Harry Potter fans the tour actually provides an insight into filmmaking as a whole by showcasing the British artistry, technology and talent that went into making the series. The tour has been created by using the original film sets and props used in the films, which were stored and reassembled by those originally responsible.

Films such as Harry Potter have also raised the profile of the UK in the Far East; movies like *Kabhi Kushi Kabhie Gham* 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. Within the UK, films like *The Duchess*, *Pride and Prejudice* and *Brideshead Revisited* always increase interest in the many National Trust properties used for filming.

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<sup>62</sup>. It is now also commonly acknowledged that film plays a major role in shaping external perceptions and the 'brand' of individual destinations, for example in Yorkshire, whose popular image mirrors its rich history in film, from *Jane Eyre* and *The Railway Children*, which evoke its famous rolling scenery, all the way to *The Full Monty* and *The Damned United* which reflect its dominant working class culture<sup>63</sup>.

<sup>62</sup> For more evidence of the "substantial" if "diffuse" effect, see Young and Young (2008), *Measuring the Effects of Film and Television on Tourism to Screen Locations: A Theoretical and Empirical Perspective*, Journal of Travel and Tourism Marketing, June 2008

<sup>63</sup> See O'Connor, Flanagan and Gilbert (2008), *The Integration of Film-Induced Tourism and Destination Branding in Yorkshire, UK*, International Journal of Tourism Research, Vol 10, 2008.

VisitBritain, the national tourism agency, actively markets destinations in the UK on the back of appearances in popular films and increasingly, exploits the link between tourism and film using social media channels such as Twitter and Facebook. Recently the agency launched a Harry Potter app to go with the 2011 release of *Harry Potter and the Deathly Hallows: Part 2* and previously launched the British Film Locations app (2010) which helps the user find and photograph the most iconic British film locations. And the now traditional Movie Map is still extremely popular with tourists – VisitBritain currently offers maps and even multi-day travel itineraries based around *Pride and Prejudice* (Peak District, Bakewell and Stamford), *Miss Potter* (Lake District) and the James Bond films (London, Chippenham and the New Forest), while Film London offers maps for *Bridget Jones* and *Love Actually*, amongst others, as well as broader themed itineraries such as the 'South Bank Movie Trail' and the 'Bollywood Trail'. Empire magazine has also developed the Dark Knight Location Travel Guide to show fans of the Batman movies where key scenes from the film franchise were filmed, including many locations across the UK.

As a marketing tool, the Movie Maps have been hugely successful: surveys have previously shown that they turn possible visits into certainties, encourage people to visit parts of England that they had not previously considered, and generate impressive returns to investment.

Similarly, the National Trust has been a major beneficiary from film tourism, by making money from both shooting fees and increased visitors. On average, three of their properties were in use by film productions on any given day in 2010, earning the charity £5.5 million. Recognising the significant benefits associated with the film industry, the Trust has since been pro-active in publicising the use of their properties in films, having a web page dedicated to visits relating to films.

## 9.5 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 31 million overseas visitors to the UK amounted to £17.9 billion in 2011<sup>64</sup>, and this is estimated to have directly supported 183,000 jobs<sup>65</sup>. But how much of that tourism activity can be attributed to UK films?

In our previous report, we estimated the impact of UK film on tourism in 2009 could have been as much as £1.9 billion, representing approximately 12% of the value of international tourism.

This estimate was based on an appreciation of the literature including the 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, provided statistical evidence on the value of the impact of film on tourism. They examined 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 9.2. They showed that there is a statistically significant difference between the increases in visitors that a location experiences and what might have been expected by extrapolating previous trends in visitor numbers. They concluded that "...the span of movie inducement lasted for at least 4 years and increased between 40 and 50%."

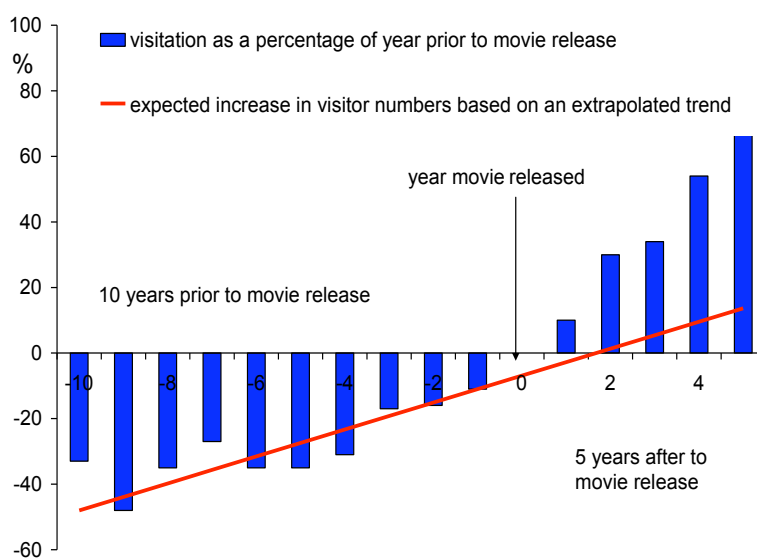
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<sup>64</sup> Source: ONS travel and tourism statistics.

<sup>65</sup> Source: *Travel & Tourism Economic Impact 2012 UK*, WTTC (based on share of overnight visits to overall tourism demand which includes domestic tourism).

Taking the anecdotal evidence and the results of Riley et al presented in Figure 9.2 perhaps suggest that the estimates of the impact of film tourism in our 2005, 2007 and 2009 reports are conservative. However, the 12 movies in the Riley et al study were 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.

**Chart 9.2: Impact of movie releases on visitation to public parks and private attractions (median of 12 sites)**



Source: Riley, Baker and Van Doren (1998)

Based on updating the results from our previous report and applying them to the latest tourism statistics, we estimate that the impact of UK film on tourism could have been as much as £2.1 billion of international visitor spending in 2011. This excludes the impact of UK film on domestic UK tourism.

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 £2.1 billion in 2011 produced a contribution of around £1 billion a year to UK GDP and £230 million to the Exchequer (including impacts on air passenger duty).

While an estimated £2.1 billion of visitor spending in the UK in 2011 may have been the result of the impact of UK films this does not necessarily mean that spending would fall by this amount if UK films were no longer made. In the first place, films might continue to be made about the UK, even if



they were no longer made in the UK. Furthermore, 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 previous reports, 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. 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. The modern-day tourist dollar is sought after by more competing locations than ever before, and with future growth in tourism spending set to be driven predominantly by the rising incomes of Asian travellers – who we already know can be heavily influenced by film locations, such as Switzerland, in their vacation decision-making – the UK is likely to need to remain highly visible to international audiences to maintain its share of the global film tourism market.

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.

## 9.6 Summary

The available evidence suggests around one in ten foreign visitors to the UK probably come as a result of seeing the country depicted in film. In 2011, as a result of their spending around 21,000 jobs were supported in the UK, contributing an additional £230 million to the Exchequer and £1 billion to GDP. With the continued success of UK films and actors at international award ceremonies such as the Oscars®, the contribution of film to tourism in the UK looks set to increase further in the coming years.

## 10 Culture

### Key Points

- In 2011, independent UK films accounted for an impressive 13.3% of the UK box office with the most successful films being *The King's Speech* and *The Inbetweeners Movie*, which have become the top two independent UK films of all time.
- Beyond quantifiable benefits indigenous film also 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 illustrate the social challenges that the country faces in the 21st century, including unemployment, prejudice and race relations, as well as positive themes such as the benefits of the UK's diverse multi-cultural population, family values and friendship.
- We estimate showing of UK films in cinemas boosts total box office revenues by around £69 million a year. This is one estimate of the private cultural value of UK film as shown in cinema.
- Sales and rental of UK films on DVD and Blu-ray earned over £310 million in 2011. If the same premium for watching UK films applies in these media, the private cultural value of watching UK film may be boosted by an additional £93 million.
- The government is now explicitly recognising the public value of culture through the Cultural Test for identifying whether a film is British.

### 10.1 Introduction

As a leading component of popular culture and a powerful means of expression and comment for filmmakers on the world around them, film has the ability to make people see things differently, question long-held perceptions and feelings, broaden knowledge and enrich lives. In a globalised and digital world, it 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 national 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.

### 10.2 Channels of impact

Film can affect a country's culture in many ways. The best films can articulate new ideas, prompting 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 viewpoints. 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.

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 recognise 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 express national identity is the main reason the government seeks to promote the production of culturally British films by providing tax relief. In describing the 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>66</sup>

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

- *The King's Speech* – overcoming disability
- *The Iron Lady* – dementia
- *Harry Brown* – vigilantism
- *We Need to Talk About Kevin* - maternal love
- *Made in Dagenham* – equal rights for women
- *Oranges and Sunshine* – adoption and migration
- *Another Year* – marriage and friendship
- *Submarine* – adolescence and parenthood
- *Shame* – sexual addiction
- *Ill Manors* – urban life and disenfranchised youth
- *Project Nim* – animal abuse and human self-deception

In 2011, independent UK films accounted for an impressive 13.3% of the UK box office with the most successful films being *The King's Speech* and *The Inbetweeners Movie*, which have become the top two independent UK films of all time (Table 10.1). The success of the independent film sector and range of films within the top 20 demonstrates that UK audiences respond to a range of

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<sup>66</sup> Source: 'Reform of film tax incentives: Promoting the sustainable production of culturally British films', HM Treasury, July 2005.

different stories and identifiable UK cultural themes. *The Inbetweeners Movie* has also proved successful at attracting a younger cinema audience to the independent film sector.

**Table 10.1: Top 20 UK independent films at the UK box office, 1990-2012  
(not inflation adjusted)**

	Film Title	UK Box office total (£ Million)	Year of release
1	The King's Speech	45.7	2011
2	The Inbetweeners Movie	45.0	2011
3	Slumdog Millionaire	31.7	2009
4	Four Weddings and a Funeral	27.8	1994
5	The Woman in Black	21.2	2012
6	The Best Exotic Marigold Hotel	20.2	2012
7	Tinker, Tailor, Soldier, Spy	14.2	2011
8	Trainspotting	12.4	1996
9	St. Trinian's	12.3	2007
10	Gosford Park	12.3	2002
11	StreetDance 3D	11.6	2010
12	Kick-Ass	11.6	2010
13	Bend it Like Beckham	11.6	2002
14	Run, Fat Boy, Run	11.0	2007
15	Kevin and Perry Go Large	10.5	2000
16	East is East	10.4	1999
17	The Iron Lady	9.6	2012
18	The Queen	9.4	2006
19	Valiant	8.5	2005
20	The Duchess	7.1	2008

Source: Rentrak, BFI RSU Analysis

### Box 10.1: Opening our Eyes: How film contributes to the culture of the UK

In July 2011, the BFI launched the report "*Opening our Eyes: How film contributes to the culture of the UK*". This survey-based report provides in-depth data on the films that really matter to the British public, why they watch them and the effect they have and demonstrates how film moves and inspires the nations of the UK, how it excites the emotions and the intellect and how it influences the shape of our lives.

The report highlights how film is central to the cultural life of the UK and one of the most powerful cultural mediums with an estimated 5 billion film viewings taking place each year. It revealed that 84% of the population were interested in film, which was valued highly in comparison to other social and leisure interests including world news (81%), restaurants (80%), the countryside (80%), pop and rock music (69%), literature (67%), politics (62%), museums (59%), pubs and

clubs (53%), watching (52%) and playing sport (51%), theatre (50%), art (46%) and celebrities (32%). More than twice as many people were more interested in film than religion (32%). Only news about the UK (88%) and television (88%) were rated as being of more interest.

It was found that those with an interest in film had a higher than average interest and involvement in other arts, entertainments and the world in general with half of respondents saying that they appreciated the artistic value of film and overall, placed film on a par with literature and classical music.

Amanda Nevill, CEO BFI said the report “proves that film is at the heart of our cultural life. Understanding, appreciating and assessing its cultural contribution is essential to a forward looking public policy and will guide our funding priorities for film. It gives us evidence of how powerful film is in today’s society, reinforcing how important access to it is and the need to continue to develop new talent and keep our industry vibrant. *Opening Our Eyes* helps us better understand our society, our history, our place in the world, our humanity and, ultimately, ourselves.”

Emotional responses indicated that regardless of watching a blockbuster or low budget independent film, people were finding meaning and value in the experiences. Overall, *The King’s Speech* was most frequently mentioned as having a personal effect on people, followed by *Schindler’s List*, *Avatar*, *Slumdog Millionaire*, *Titanic* and *The Shawshank Redemption*.

Furthermore the findings showed that film provided a unique range of entertainment experiences with people citing escapism (68%), emotional or moving (60%), excitement (59%) and thought provoking (59%) as the most overwhelming reactions. Three quarters of respondents thought that film was a good way of making people think about difficult or sensitive issues and two thirds felt that film was educational. 48% had seen films that encouraged them to find out more about the subject raised and 14% had been prompted into action related to a situation shown in the film, like joining a group or donating money.

There was strong public support for British film in general (88%), with 78% people in support of public funding for British filmmaking through the National Lottery. Half of those asked said that they were more likely to watch a film if it was British – and 86% said that they had seen a British film in the past year. Over half felt there were too few British films shown in the UK (in cinemas, on television and on other media). Respondents appreciated the realistic, honest and true to life aspect of British films and the unique British sense of humour. UK-wide, 65% of the public were keen to see more British films made that were ‘true to life’.

The top ten British films most frequently mentioned (in order) as having had a significant effect on society or attitudes in the UK were: *Trainspotting*, *The Full Monty*, *East is East*, *Billy Elliott*, *The King’s Speech*, *This is England*, *Cathy Come Home*, *Brassed Off*, *Slumdog Millionaire* and *Kidulthood*. These films have a persistent (or accumulative effect over time) due to repeated showings on TV, where they are seen by millions of people and move into the ‘national consciousness’.

*Source: Opening our eyes: How film contributes to the culture of the UK, a report for the BFI by Northern Alliance and Ipsos MediaCT, 2011.*

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 6). It has an important role to play in

attracting people to the UK and supporting inward tourism (as discussed in Chapter 9). It also attracts business, influencing levels of inward foreign direct investment.

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

In addition, the introduction of popular culture, media and/or new technologies into the communications, language and literacy curriculum has motivated and engaged children in learning. Practitioners report that it has a positive impact on children's progress in speaking, listening and literacy. Teachers who acknowledge and seek to build on children's film-related literacy skills consistently report overall gains in attainment.

Film: 21st Century Literacy was a three-year project funded through a National Lottery grant and delivered by BFI, Creative Skillset, FILMCLUB, Film Education and First Light. The Strategy aimed to strengthen film culture among young audiences across the UK, and train educators to develop a sustainable film education infrastructure. The strategy's advocacy report<sup>67</sup> reviews the literature on film and literacy and points towards a growing body of evidence that demonstrates film's ability to raise standards across the curriculum and key projects such as the Reframing Literacy programme which demonstrated significant benefits to teachers' pedagogy and students' learning.

An example of a recently completed project that worked to use film to raise standards of reading and writing is Reach the Heights, a Welsh Assembly Government initiative managed by Arts Council of Wales, aimed at reducing the number of young people in Wales aged 11-19 who are not in education, employment or training (NEET), or who are at risk of becoming so. An evaluation of the project found convincing evidence that film literacy projects can enable NEETs to recognise their potential and develop a range of soft skills and a positive attitude towards learning<sup>68</sup>.

There have been a number of successful UK sports films over recent years including *Senna*, *TT3D: Closer to the Edge*, *127 Hours* and *Fast Girls*. These have explored sporting themes and their related life issues through film and promoted the independent sector to wider audiences. The 2012 London Olympic and Paralympics Games have inspired a number of TV dramas centred on the Olympics and Paralympics while UK film director Danny Boyle's acclaimed opening ceremony has strengthened the link between film and sport.

The production of UK feature films has revived the reputation of some older filmmaking companies, as shown by the recent success of *The Woman in Black*, made by Hammer Film Productions, a production company once renowned for films within the horror genre.

The 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. This is a key justification for the Film Tax Relief in the UK.

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<sup>67</sup> Source: *Integrating Film into Education - Advocacy Report*, Film: 21st Century Literacy

<sup>68</sup> Source: *Reach the Heights Film: Programme Evaluation report*, August 2011.

### 10.3 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. BFI maintains detailed databases that allow for a comparison of the effects of country of origin on box office revenues (see Appendix A for more details).

We focus here on the subset of films released in both the UK and US between 2000 and 2011. We begin our analysis of UK filmgoers' 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 10.2 shows various points in the statistical 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 10.2 show – the typical film earns in the UK just 16% 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 to the cinema more frequently than British people (4 times a year as opposed to less than 3 times a year).

Table 10.2 also shows it is rare for a film to earn more box office revenue in the UK than in the US. In only 5% of cases<sup>69</sup> (the 95<sup>th</sup> percentile in Column 2) does a film earn more this side of the Atlantic.

But Table 10.2 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 small: in only 5% of cases has a foreign film earned more box office revenue in the UK than in the 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.

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<sup>69</sup> The cells shaded grey indicate where films earn more at the UK box office than the US box office.

**Table 10.2: Films' UK box office receipts as a proportion of its US box office receipts (2000-11)**

Selected points in the distribution of UK box office receipts for a film as a proportion of its receipts in the US	UK earnings relative to US earnings for all films	UK earnings relative to US earnings	
		Non-UK Films	UK Films
	Col.1	Col.2	Col.3
minimum	0.00	0.00	0.00
5th percentile	0.01	0.01	0.05
10th percentile	0.03	0.02	0.09
15th percentile	0.04	0.04	0.13
20th percentile	0.06	0.05	0.15
25th percentile	0.07	0.06	0.18
30th percentile	0.09	0.07	0.21
35th percentile	0.10	0.09	0.25
40th percentile	0.12	0.10	0.31
45th percentile	0.14	0.12	0.35
50th percentile (median)	0.16	0.14	0.42
55th percentile	0.18	0.15	0.55
60th percentile	0.20	0.17	0.67
65th percentile	0.24	0.20	0.85
70th percentile	0.29	0.22	1.10
75th percentile	0.36	0.27	1.45
80th percentile	0.52	0.34	2.13
85th percentile	0.79	0.49	4.26
90th percentile	1.33	0.81	6.99
95th percentile	3.49	1.71	17.21
maximum	3987.04	121.13	3987.04

Sources: BFI and Oxford Economics

\*in common currency (sterling)

\*cells shaded blue where UK box office receipts exceed US box office receipts.

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 2009 study. This is explained more fully in Appendix A.

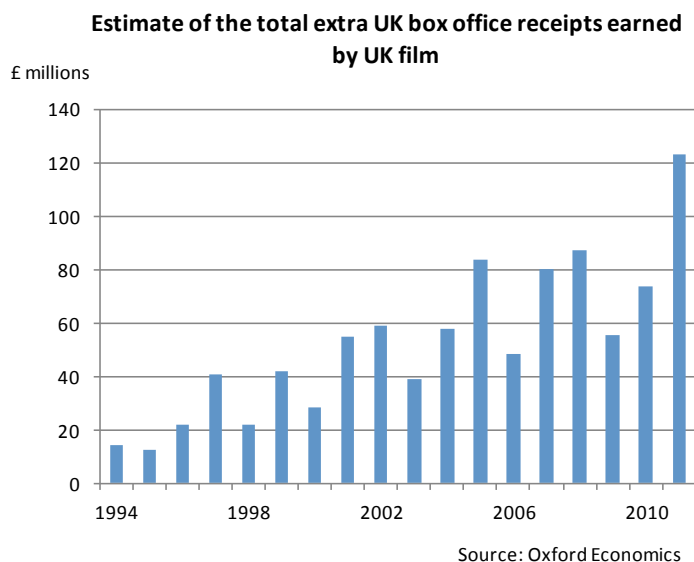


Our analysis seeks to identify whether the UK box office receipts for a film are statistically significantly higher for UK films compared with foreign films. In conducting this analysis, it is necessary to take account of the fact that films differ in popular appeal – it is difficult to be sure when 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.

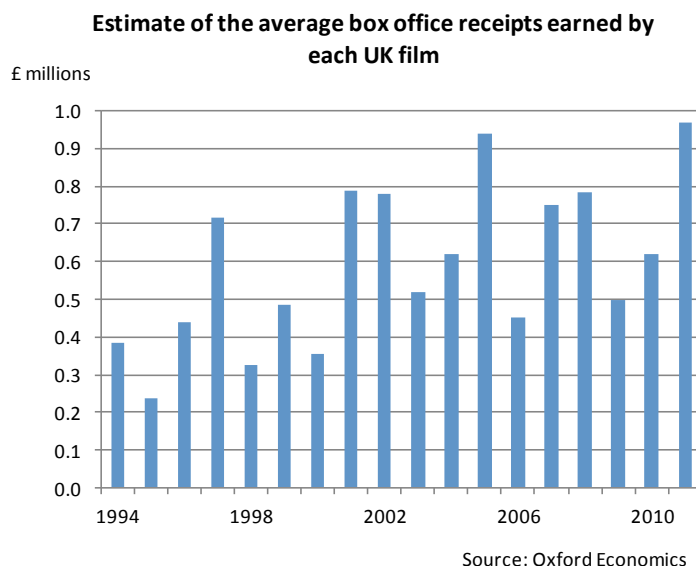
Our results suggest that a film’s box office receipts in the UK will be 30% higher than otherwise would be the case given its general appeal if it is UK-made. Most of this extra premium can be expected to reflect the ‘cultural’ value domestic cinema audiences place on seeing a UK production. So for example a film like *The King’s Speech*, which earned £45.7 million at the UK box office, is estimated to have attracted £13.7 million of those receipts because it was UK-made.

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 10.1 shows this measure of additional private cultural value of UK film ranges between £12.7 million and £123 million a year between 2000 and 2011 (given the record year for UK films box office takings in 2011). Over the eleven years as a whole, it averaged £69 million per year. This equates to an average of £702,000 per UK film since the turn of the millennium (Chart 10.2).

**Chart 10.1:**



**Chart 10.2:**



There are other implications from finding that UK films tend to earn higher box office receipts for given popular appeal. For example, the additional £69 million earned by UK films on account of being indigenous means that VAT receipts from cinema ticket sales are around £14 million higher than otherwise. Firms in distribution and exhibition pay an additional £6 million in corporation tax receipts on their extra profits from showing UK-made films. Furthermore, the extra revenue from UK films implies that employment in the film distribution and exhibition industries may be around 470 higher than if there were no indigenous films. These additional employees in distribution and exhibition pay an extra £3 million in employment taxes. In total, the distribution and exhibition of

indigenous films is estimated to earn an extra £22 million a year in tax receipts compared to showing foreign films with the same popular appeal.

After theatrical release, audiences can also see films through DVD and Blu-ray sales and rentals. In 2011, sales of DVDs and Blu-rays of feature films earned £1.2 billion, of which UK films accounted for £256 million (22%). The value of the rental market for films in 2011 was £256 million of which UK films accounted for £54 million (22%)<sup>70</sup>. If the 30% premium for UK films holds for these media, the cultural value film-watchers place on seeing a UK film is worth an additional £93 million a year. In addition, there will be cultural value associated with the showing of UK films on TV.

#### 10.4 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. The incorporation of the production, distribution and broadcasting of "*feature films that reflect cultural activity in the United Kingdom*" into the public service remit of Channel 4, via the UK's Digital Economy Act 2010, is evidence of a recognition of the cultural value of film to the UK.

Quantifying this cultural value, however, is more challenging. One common approach to establishing the total value of cultural activities is to conduct surveys that ask people directly. A traditional survey<sup>71</sup> examining public attitudes to film on TV found that 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. These findings are reinforced by the survey evidence from BFI's report *Opening our Eyes*<sup>72</sup> which highlights the centrality of film to cultural life in the UK reporting that a higher proportion of the population were interested in film compared to other popular leisure and social interests (see Box 10.1 for further details).

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:

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<sup>70</sup> Assumed to be the same as the share of film on video retail sales.

<sup>71</sup> Public Attitude to Film on TV, Commissioned by the UK Film Council from Ominas

<sup>72</sup> *Opening our Eyes* report, BFI, July 2011

- The BBC is a similar institution to the core UK film industry in that it provides a key outlet for UK-originated cultural content. The Corporation undertook a contingent valuation study<sup>73</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.
- Another contingent valuation study looked at the benefits that the Australian community derived from having the mandatory transmission of Australian-originated programmes on their television stations. The Australian system requires that 55% of airtime on television between 6.00am and midnight be locally produced. This therefore provides another test of the cultural valuation people place on domestic audiovisual media. The study found widespread positive views about the likely cultural benefits of Australian film and television. By contrast, the view that Australian films and television were of higher quality was less widely held. Hence, there was some evidence of discrimination between the value people placed on national-originated culture in principle and that that was actually delivered. Some 65% of respondents approved of the level of expenditure committed to supply Australian programming, with only 15% wanting a decrease. The mean and median values placed on Australian television output broadly equated to its current costs.
- Other studies of domestic television have found equally supportive results. A contingent valuation analysis on Irish Public Service Broadcasting found that the annual willingness to pay for the Irish public service broadcaster significantly exceeded the current fee. Another study, undertaken to value the Canadian Broadcasting Corporation, 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.

## 10.5 Summary

Our estimates suggest that, on average, the presence of UK films boost UK cinemas' box office receipts by nearly £69 million a year over-and-above the level we would expect if all films shown were foreign made. This is equivalent to 6.1% of UK cinemas' total gross box office receipts in 2011. 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 private cultural value of UK film could increase to around £93 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.

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<sup>73</sup> Source: 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 for Culture, Media and Sport, September 2006.

# 11 Merchandising

## Key Points

- The commercial opportunities from film merchandising are numerous and growing – from traditional DVD, book and toy sales through to video games, music downloads, Blu-ray discs and the rapid growth of smart phone and tablet apps.
- Turnover from merchandise associated with UK films but outside the film industry - predominately in the retail sector - was about £336 million in 2011. This was lower than the 2009 figure largely due to the decline in DVD sales and computer/video games.
- DVD sales of UK films generated additional revenues (above those already counted as part of the sector's direct GDP contribution) of about £115 million, DVD rentals about £41 million, soundtrack CDs about £10 million and sales of related computer/video games about £70 million.
- These sales supported about 6,300 jobs in 2011, contributed £228 million to UK GDP and £103 million to the Exchequer.

## 11.1 Introduction

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 the film financially viable and enhance the contribution that the film industry makes to the UK economy. Films also interest the biggest retail, hotel and restaurant chains who appreciate their potential as marketing tools: for instance both McDonalds and Burger King introduce new toys as part of their children's meals to coincide with film releases.

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.

## 11.2 DVDs and Blu-rays

The film industry earns more through sales and rentals of DVDs and other types of 'video', such as Blu-ray, 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 and Blu-ray 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 now buys a similar number of DVDs or Blu-rays as they buy cinema tickets. Cinema admissions in 2011 averaged 2.8 per head of the population, whereas film DVD or Blu-ray purchases averaged 2.4 per head<sup>74</sup>.

The overall retail market for DVDs and Blu-rays was worth approximately £1.7 billion in 2011<sup>75</sup> (87% of it DVDs and much of the remainder Blu-rays, which typically retail at a higher price). Within this figure, sales of film DVDs and Blu-rays accounted for £1.2 billion. UK films accounted for approximately 22% of DVD and Blu-ray film sales, so the value of combined video sales of UK films was about £256 million in 2011. Of the top ten best-selling DVD and Blu-ray films in 2011 the top 7 were UK-qualifying, representing either independent or collaborative UK feature film productions and demonstrating the commercial of the national industry (Table 11.1).

**Table 11.1: Top 10 films in 2011 (DVD/video retail) in the UK**

Rank	Title	UK qualifying?
1	Harry Potter & The Deathly Hallows Part 1	Yes
2	Harry Potter & The Deathly Hallows Part 2	Yes
3	The Inbetweeners Movie	Yes
4	The King's Speech	Yes
5	Pirates Of The Caribbean: On Stranger Tides	Yes
6	Paul	Yes
7	Transformers: Dark of the Moon	No
8	The Hangover Part II	No
9	Bridesmaids	No
10	Inception	Yes

Source: BFI

A proportion of DVD and Blu-ray sales revenue is already captured in our estimates of the direct contribution of the core UK film industry. We estimate that around 55% of sales are counted already in the direct impact, so this means that additional merchandise sales in the retail sector amounted to about £115 million in 2011.

DVDs of films also generate significant economic activity through the rental market, although this is now in fairly rapid decline with the growth of multi-channel television, copyright theft and infringement and in particular the falling cost of retail DVDs. From a peak of £476 million in 2002, the total rental market was estimated to be worth £274 million in 2011<sup>76</sup>. The most popular over-the-counter rental during the year was the film *Unknown*, with *The King's Speech* the most popular online rental. Overall, films accounted for 89.8% of the DVD rental market (£246million), and BFI estimates that UK films account for around 22% of the film rental market (£54m).

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

<sup>74</sup> Based on 171.6 million admissions and 152 million units of film on video sales, BFI.

<sup>75</sup> Figures supplied by BFI using Screen Digest information.

<sup>76</sup> Note that since the last report the video rental data has been substantially revised upwards by Screen Digest/BVA (as supplied by BFI), including the 2009 figure for the total video rental market of £295m compared to £221m reported previously. Overall the trend is one of falling video rental revenues.

low turnover/high margin business, whereas retail is a high turnover (derived from high footfall) but low margin business. A rental outlet is also likely to account for a proportionately greater part of the total cost involved in getting the product to market. Additional costs include information technology and administration systems to keep track of DVDs rented (likely to have risen with the growth in online rental purchases subsequently delivered by post) and a significant amount of shop space to keep a wide selection of DVDs available.

Deducting one-quarter of revenues, and using the 22% share for UK films in rentals, implies that additional merchandise rental sales from UK films amounted to about £41 million in 2011.

Taken together, the combination of both retail and rental of DVDs of UK films in 2011 generated additional sales revenue of £156 million (above that already counted as direct contribution to GDP). In terms of value added, this implies a contribution to UK GDP of around £111 million, and the activity associated with this is estimated to have employed around 3,000 people.

### 11.3 Music and soundtracks

Music is inextricably associated with film: leading international artists have always been in heavy demand to write and perform signature tracks for individual productions, and in some cases – perhaps most famously with stars like Céline Dion (*Titanic*) and Bryan Adams (*Robin Hood: Prince of Thieves*) – their careers have become closely associated with the hit songs they produced. There is also a strong demand from consumers to own soundtracks as pieces of film-related merchandise, even when the songs are not necessarily unique to the film: in the UK, the *Mamma Mia!* soundtrack, featuring cast members such as Pierce Brosnan and Meryl Streep performing well-known ABBA songs from the film, achieved triple platinum<sup>77</sup> status within a year of going on sale in 2008.

Overall, sales of original-film soundtracks make up a relatively small part of the market for recorded music. But since 113 million albums were sold in the UK in 2011 (hard copy and download sales combined)<sup>78</sup>, this still amounts to an appreciable level of spending – at £0.9 billion in total, assuming an average retail price of £8. The market share of film soundtracks amongst all album sales varies from year to year, peaking of course when a popular song appears on the soundtrack of a blockbuster film. In 2009 we estimated that sales of UK film soundtracks were worth £10 million, which was considered conservative given the considerable impact of single film soundtracks such as *Mamma Mia!*.

But the commercial relationship between film and music goes beyond the traditional soundtrack. In the age of the download, single sales have now consistently outstripped album sales since 2009 (178 million versus 113 million in the UK in 2011<sup>78</sup>) and this creates new opportunities for marketing film music outside of soundtracks. For example, one of the most popular and successful singles of the 2000s, Take That's million-selling hit *Rule The World*, was written for the major UK-US film *Stardust* and was used heavily to promote the film (as well as featuring in its closing credits) despite not appearing on the official soundtrack album. This song alone would have added almost another £1 million to the total for UK film-related music sales.

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<sup>77</sup> Triple platinum refers to a certification by the RIAA (Recording Industry Association of America) which recognises the level of sales of a particular album reading one million units.

<sup>78</sup> Source: BPI.

## 11.4 Books

There are a number of ways in which book sales can be influenced by films. In many cases, of course, films re-tell the story of a book, providing an immediate link between the two media, with obvious examples among major films including the Harry Potter series, based on the novels of JK Rowling and The Lord of the Rings trilogy and (soon to be released as a feature film) *The Hobbit*, based on the books by JRR Tolkien. Following the release of *War Horse* earlier this year more copies of the book were sold in the UK in a fortnight than were sold worldwide in the 25 years after it was first published<sup>79</sup>. Other novels, adapted for film that received a chart boost in 2011 include David Nicholls' *One Day* and Kathryn Stockett's *The Help*. Table 11.2 below shows the importance of film adaptations to the bestselling books of 2011, with most published earlier than the film.

**Table 11.2: Bestselling fiction books of 2011**

Title	Volume	Value, £ million
One Day	935,355	£5.2
A Tiny Bit Marvellous	413,800	£2.0
Room	402,108	£2.2
The Help	383,467	£2.0
The Girl with the Dragon Tattoo: Millennium Trilogy	329,389	£1.6
The Confession	314,471	£1.6
The Girl Who Kicked the Hornets' Nest: Millennium Trilogy	311,529	£1.5
The Girl Who Played with Fire: Millennium Trilogy	288,706	£1.4
The Brightest Star in the Sky	277,947	£1.4
A Game of Thrones: Book 1 of a Song of Ice and Fire	255,726	£1.5

Source: Bookscan, 2011

\*blue shading denotes a book that has been made into a film.

In these sorts of cases, the films have almost certainly inspired additional sales of the books. But they were often 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 Brad Pitt film *Seven Years in Tibet* on the various real-life stories (including that of the same name) by Austrian adventurer Heinrich Harrer; and possibly also the classic works of authors such as Jane Austen, the Brontë sisters and Beatrix Potter, for which big-budget remakes involving stars like Keira Knightley (eg on *Pride and Prejudice*) can draw a new younger audience to the originals.

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, or telling additional stories about the characters.

<sup>79</sup> Source: *War Horse film boosts book sales*, BBC, January 2012

## 11.5 Video games and phone and tablet apps

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 8). 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 one-way. Big-budget films like *Prince of Persia* and *Tomb Raider*, for example, started out as video games. 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 video game software in 2011 totalled £1.4 billion<sup>80</sup>. A 2008 report by Oxford Economics on the UK games development industry estimated that the sector supported a total of almost 30,000 jobs (including 10,000 game developers) and over £1 billion in GDP<sup>81</sup>. The market share of games inspired by UK films varies significantly from year to year – for example, it will be much higher in a year when a James Bond and/or Harry Potter game is released – but in previous years it has been around 5%. Applying this broad estimate to the 2011 UK video games market would imply sales of about £70 million.

The widespread use of smart phones continues to create a sizeable market for downloadable applications which further broadens the potential for film-related electronic merchandising. For example, the Chasing Salander iPhone app lets customers dive deeper into Stieg Larson's *The Girl With The Dragon Tattoo*, and the rest of the Millenium crime novel series. The app retails at \$0.99 in the US with 14 scenes telling the untold story of a hitman hunting for protagonist Lisbeth Salander. It features 30 minutes of narration of a specially commissioned script, as well as photographs, maps, and hidden facts.

## 11.6 Toys and 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 and tax revenues derived from the merchandising of toys and models will benefit the UK economy.

In our last report we found that toys and models made under licences to a marketed entertainment product (such as animated films and children's TV shows) represent over a quarter of all sales. The Disney/Pixar film franchise *Cars* brings in \$2 billion annually, with more than 300 toys released for *Cars 2*. Well established toy brands such as Lego also have film related merchandise, such as figures related to the Harry Potter and Pirates of the Caribbean franchises. Although many films with the largest toy franchises are US-made films, with the majority of profits accruing to their

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<sup>80</sup> Source: *Strong quarter four sees 2011 video games sales up on forecasts*, the Association for UK Interactive Entertainment (UKIE).

<sup>81</sup> Source: *The Economic Contribution of the UK Games Development Industry*, Oxford Economics, October 2008



American producers, there will also be some financial benefit to UK retailers and licensees from each sale made in the UK.

## 11.7 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 – or souvenir ranges produced under license to a particular film. Warner Brothers, for instance, offer almost a hundred different clothing and accessory products (such as T-shirts, hats, bags and neckties) in their online store's Harry Potter range.

## 11.8 Brand associations

Aside from the merchandise specifically produced for a film, many companies selling other well-known products and services will often sign deals to use films for limited-time promotional purposes. These might involve competitions themed on the movie, free gifts on the collection of tokens saved from the product, or simply the reproduction of imagery from the film on the product packaging. Such 'brand associations' may be formed after particular products were featured directly within the film itself (see the section on product placement in Chapter 6), or simply, perhaps more often, because the film has been popular with the product's target audience and the association is therefore considered to offer a potential sales boost.

Successful marketing associations have recently been formed between car-maker Volvo and the film *The Twilight Saga: New Moon*, (the cars were driven by characters in the film, and an online competition to win one was entered by some 300,000 people); the children's cereal Shreddies and the film *Fantastic Mr Fox* (coupons from cereal packs can be exchanged for the original Roald Dahl Book); and the dog food Pedigree Chum with the film *Marley and Me* (the target audience of course being dog owners having seen the film). The Savoy hotel in London was promoted in *Sherlock Holmes: A Game of Shadows*.

So a successful UK core film industry can also help to boost sales of UK products and services through brand association effects exploited by limited-time sales promotions (closely linked to promoting UK exports, discussed in Chapter 6).

## 11.9 The overall value of merchandising

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

But it is also possible to look at the value of sales generated through merchandising from the other end of the process, so to speak. Since major film companies have merchandising divisions whose aim is to generate revenues through licensing others to sell products related to their films, it is also possible to get an impression of the value of merchandising through its importance to the film 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>82</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 and Blu-rays, 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 11.3) that through these forms of merchandising UK films generated sales of £336 million in 2011, and value added of £228 million. The employment associated with this contribution to GDP amounted to around 6,300 jobs, and £103 million of extra tax revenues were generated through additional VAT, income tax, national insurance contributions and corporation tax.

**Table 11.3: The value of UK film merchandising in 2011**

	<b>Sales</b>	<b>GVA</b>	<b>Employment</b>	<b>Taxes</b>
	<b>(£ million)</b>	<b>(£ million)</b>	<b>(‘000s)</b>	<b>(£ million)</b>
Video/DVD sales	115	76	2.1	34
Video/DVD rental	41	35	0.9	14
Soundtracks	10	6	0.2	4
Computer/video games	70	47	1.3	21
Other merchandise	100	65	1.8	30
<b>Total</b>	<b>336</b>	<b>228</b>	<b>6.3</b>	<b>103</b>

Source: Oxford Economics estimates

## 11.10 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 £228 million to UK GDP in 2011.

<sup>82</sup> Source: NPD License Tracker.

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 £52 million to UK GDP in 2011.

## 12 Video-on-Demand and Digital Copyright Protection

### Key Points

- Video-on-Demand, whether accessed through TV or online delivery channels, is likely to replace the DVD rental market for films and a significant proportion of the film DVD sales market within the next five years.
- It is likely that the UK film VoD market, worth around £166 million in 2011, will expand quickly and significantly over the coming years as new services are rolled out to consumers. Globally, the market is forecast to reach \$18 billion by 2016, with online VoD set to grow by 21% per annum and reach \$11 billion from \$4.3 billion today.
- Much of this potential, however, depends on successfully implementing measures to combat audio-visual copyright theft and infringement.

The rapid technological change in the creative industries presents both huge opportunities and challenges for the film sector. As noted in the *Film Policy Review 'digital technologies create the possibility of a paradigm shift in the creative and commercial potential of film'*<sup>83</sup>. The sector's future will depend in many ways on its ability to react to, manage and exploit these changes, and succeeding in its efforts to reconcile the many emerging forms of content distribution and consumption with robust means of securing and appropriating the associated revenue streams.

In this chapter we consider two of the most important ongoing issues in the UK and indeed global film industries: the opportunities surrounding Video-on-Demand (VoD) and other aspects of new market development, and the threats to exploiting the commercial potential of these arising from the truly global problem of audio-visual copyright theft and infringement.

### 12.1 Video-on-Demand

#### 12.1.1 UK Market

Video-on-Demand brings films direct to television and computer screens - and increasingly to mobile devices such as iPhones - whenever the consumer wishes to view them. The VoD market for films in the UK still remains relatively small with IHS Screen Digest figures suggesting that in 2011 the TV-based VoD market was worth £114 million and the online VoD market around £52 million. Overall at 3.8% of the total UK video entertainment market the VoD market remains small<sup>84</sup>. However revenues have been growing consistently and are forecast to reach £252 million by 2015.

Assuming that UK films account for the same proportion of total VoD film revenues (22%) as they did DVD and Blu-ray sales then the value of VoD sales of UK films was £36.4 million in 2011. A proportion of VoD sales revenue is already captured in the estimates of the direct contribution of the core UK film industry therefore we estimate that around 55% of sales are counted already in the direct impact, resulting in additional VoD sales in the retail sector amounting to £16.4 million in 2011.

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<sup>83</sup> Source: *A Future For British Film – It begins with the audience, A UK Film Policy Review*, DCMS, January 2012 (quoting John Adams, Professor of Film & Screen Media Practice, at the University of Bristol)

<sup>84</sup> Using total UK film entertainment figure of £3.8 billion in 2010 (Source: *Statistical Yearbook 2011*, BFI)

**Table 12.1: VoD Market in the UK (Revenues) for Movies, £million**

	2010	2011	2015f
TV based VoD	£107.3	£113.9	£163.6
Online based VoD	£39.1	£51.8	£89.2
Total value of VoD	£146.4	£165.7	£252.8

Source: IHS Screen Digest

Virgin Media and Sky are the market leaders in television-based VoD with over 13 million subscribers between them. Virgin Media TV subscribers are able to access a VoD service (a system which streams content in real time from a server to the viewer) while Sky satellite subscribers are able to access a push VoD service, offering films which can be stored on personal video recorders (PVRs) through the Sky Anytime service. The BT Vision IPTV service (717,000 subscribers) offers true-VoD access to its film catalogue. For digital terrestrial television (DTT) viewers, Picturebox via Top-Up TV Anytime offers a limited number of titles available through a compatible Freeview+ PVR.

While television-based providers are increasingly adding online VoD services to their offers, online 'over-the-top' VoD providers LoveFilm and Netflix are competing to become the dominant player in this growing market and, backed by considerable acquisitions budgets, are building up large libraries of content.

Online VoD services in the UK employ four basic types of business model:

- Rental VoD – one-off rental, also known as download to rent (DTR);
- Retail or download-to-own (DTO) or electronic-sell-through (EST);
- Subscription VoD (SVoD) – unlimited access to content for a fixed monthly sum; and
- Free/advert-supported VoD.

Although the VoD market remains small, there are signs of increasing consumer engagement. In *Opening our Eyes*<sup>85</sup>, the recent report on the UK public's views on the cultural contribution of film, one in 10 of the UK sample watched a film downloaded or streamed from the internet at least once a week, and just over one in five (23%) did so at least once a month. In terms of portable device consumption, 5% watched a film on a mobile device at least once a week, and 11% did so at least monthly.

Similarly, a recent study into the value of video entertainment<sup>86</sup> which examined future prospects for the industry reported that all industry observers agree that the increasing use of the internet to access media content through internet-connected TVs, set-top boxes and/or mobile devices will be a key issue in future years. The key question is how a potentially huge market will actually convert to paid-for video usage. The timeliness and flexibility of digital delivery are the key selling points

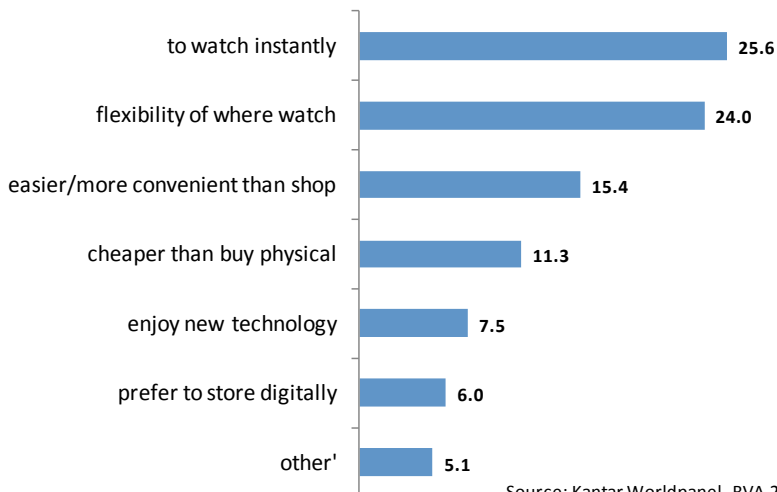
<sup>85</sup> Source: *Opening our eyes: How film contributes to the culture of the UK, a report for the BFI by Northern Alliance and Ipsos MediaCT, 2011*

<sup>86</sup> Source: *Value of video entertainment*, Oxford Economics, undertaken on behalf of BVA, June 2011

and will fit well with an environment in which users become accustomed to expecting instantaneous communications and interactive responses to consumer demand. These expectations have also been reinforced by live stream tools such as Facebook and YouTube. As indicated below the top three reasons provided by consumers for viewing digital video content reflect characteristics associated with instantaneous delivery and flexibility (Chart 12.1).

**Chart 12.1:**

**Reasons why people watch paid-for-digital content (as % of total)**



Source: Kantar Worldpanel, BVA 2011 Yearbook

Note: Relates to all paid for digital content

### 12.1.2 Future prospects for VoD

The global market for VoD is growing rapidly. Using figures from PwC/Wilkofsky Gruen Associates, the total electronic home market (which is consistent with Screen Digest’s TV based and online VoD) is forecast to reach \$18 billion by 2016 (Table 12.2), with over-the-top/streaming (online VoD)<sup>87</sup> set to grow by 21% per annum and reach \$11 billion from \$4.3 billion today (overtaking spending by TV subscriptions in 2012). This growth will be boosted by growth in digital cable and telephone company TV subscription services and the availability of content on tablets and other devices as well as Internet-connected TVs.

<sup>87</sup> Whose filmed entertainment content is accessed via a broadband or wireless Internet connection and can be viewed on a PC, a TV, a tablet, or any other device and which bypasses TV subscription providers

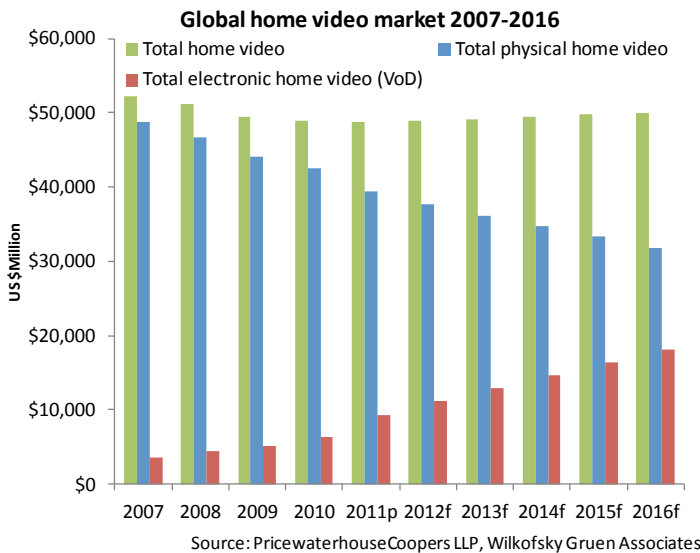
**Table 12.2: Global market size (revenues)**

	2010	2016	CAGR
	\$bn	\$bn	
Physical market (rentals and sell through)	39.4	31.8	-4.2%
Total electronic home video market	9.3	18	14.2%
<i>of which:</i>			
Electronic spending through TV subscription	5.0	7.0	6.8%
Over-the-top/ streaming	4.3	11.0	21.0%
Total home video spending	48.7	49.9	0.5%

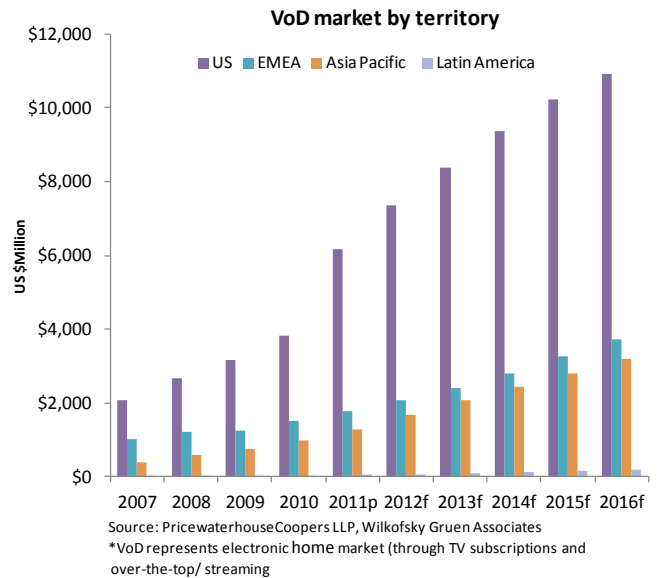
Source: PricewaterhouseCoopers LLP, Wilkofsky Gruen Associates. Electronic home market is consistent with Screen Digest’s total VoD sector (TV and online).

The majority of this growth will be within the US, where the total VoD market is set to reach over \$10 billion by 2016, followed by EMEA and Asia Pacific (Chart 12.3). Although piracy will continue to hold down spending, particularly in Asia Pacific and Latin America as well as a number of countries in EMEA (discussed below in Section 12.2).

**Chart 12.2:**



**Chart 12.3:**



The top ten growth markets over 2011-16 for TV based on-demand movie revenue are detailed below (Table 12.3). The very high revenue forecast for South Korea is likely to be linked to smart TVs (internet enabled) which are forecast to make up 47% of the growth in online movie transactions as soon as 2015, and 80% of new units being shipped from South Korea will be smart

models<sup>88</sup>. Given South Korea's problems with piracy related to physical forms of video content this also demonstrates how VoD can be commercially viable by providing online content via convenient and easy to use forms of technology.

**Table 12.3: Top 10 forecast markets for TV based on-demand movie revenue, 2011-2016**

	<b>Country</b>	<b>Growth over 2011/2016, \$ millions</b>
1	USA	287.2
2	South Korea	156.4
3	Germany	133.3
4	France	117.0
5	Canada	97.8
6	UK	88.8
7	Belgium	79.5
8	Brazil	76.5
9	Netherlands	44.3
10	Switzerland	37.6
	World	1,041.5

Source: IHS Screen Digest

Over the coming years it will be critical for the UK film industry to ensure it is tapped into the growing VoD markets to ensure future VoD revenue streams can compensate for falling physical format revenue streams.

If the UK is to seize the market opportunities it is important to ensure that infrastructure is indeed capable of handling complex and multi-platform consumer needs as and when these arise in the near future. Other issues to be addressed over the coming years include improving delivery to the television screen, enhancing the user interface, finding price points that work for both the industry and the consumer and increasing the size of VoD film catalogues so that a wider choice of material is available. In terms of specific initiatives, internet-enabled TVs, in particular, are emerging as an important feature of the future, with manufacturers negotiating deals with ISPs and content providers to offer viewers "widgets" and apps for popular services, including BBC iPlayer, YouTube and LOVEFiLM.

<sup>88</sup> For more discussion see:

[http://afr.com/p/technology/viewers\\_get\\_their\\_heads\\_in\\_the\\_cloud\\_EhXSwm7DDxvrpQyZUKqIDN](http://afr.com/p/technology/viewers_get_their_heads_in_the_cloud_EhXSwm7DDxvrpQyZUKqIDN)



### Box 12.1: Rapid technological change transforming how films are promoted and exhibited

The internet continues to transform how films are promoted and exhibited through the generation of more and more internet-only content types, representing new ways to communicate such as social networking sites and user-generated content.

The emergence of key social domains, namely Facebook, YouTube and Twitter has influenced the film industry dramatically by providing new promotional avenues and creating new opportunities for exhibition. For instance nearly two-thirds of internet users in the UK are on Facebook which is driving a great deal of other web traffic (including for films and videos), through links posted by members.

There are many examples of how these new types of communication can be harnessed in the film industry. For instance social media helps form closer connections between fans and film products whilst promotional tools such as viral alternate reality campaigns<sup>89</sup> as illustrated recently by *The Dark Knight Rises* build significant awareness of new films (during and after final production). The original Swedish version of *The Girl with the Dragon Tattoo* had an innovative social media campaign around blogging whilst the distributors of *The Hunger Games* also created separate Facebook pages for each area of the Hunger Games story. For the forthcoming film, *Paranormal Activity 4*, the studio is working with Facebook for what it calls the "Want It" campaign, allowing fans to request a premiere in their hometown, anywhere in the world; the 25 cities with the most voting activity will get it first.

Production companies are increasingly starting their digital marketing strategies earlier through a mix of channels and using micro interactions that have multiple social media channels each appealing to a subset of the intended audience. Social media channels allow studios to know who their audience is and what they like and don't like whilst an engaged 'social audience' can become advocates of a film and spread the word.

As highlighted by a recent report by Ofcom<sup>90</sup> there are two key market developments in communications that are continuing to transform the effect of the internet on consumer behaviour and industry structures – the use of smart phones (two in every five adults now own a smart phone) and that more revenue is generated by internet advertising than by any other sector (30% of the total). These two drivers along with the continued growth of social media will transform the way that films and videos are consumed in the future.

## 12.2 Digital Copyright Theft and Infringement

Unlocking the economic potential of VoD for the UK film industry (and indeed other industries) will also be assisted by the development of effective methods to tackle copyright theft and infringement. A recent study of infringing use of the Internet reports that while the vast majority of video streaming is legitimate, 5.3% is copyrighted content and streamed illegitimately, 1.4% of all

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<sup>89</sup> Viral marketing, viral advertising, or marketing buzz are buzzwords referring to marketing techniques that use pre-existing social networks and other technologies to produce increases in brand awareness or to achieve other marketing objectives (such as product sales) through self-replicating viral processes. Viral marketing may take the form of video clips, interactive Flash games, advergames, ebooks, brandable software, images, text messages, email messages, or web pages

<sup>90</sup> The Communications Market, Ofcom, 2012

internet traffic<sup>91</sup>. Succeeding in this area is almost certain to require a co-ordinated joint effort between content producers, distributors and the providers of TV and online viewing platforms.

Theft of copyright and/or intellectual property occurs and damages the core UK film industry in a number of ways. It is estimated that illegal streams and downloads account for around 40% of the global film industry's copyright theft and infringement problem<sup>92</sup> and with the UK having a similar level of internet connectivity to other developed nations; its own rate of online copyright abuse is likely to be similar. A 2009 study estimated that the UK's £530 million of lost audio-visual industry revenues through copyright abuse are comprised of around £90 million from physical counterfeit products, £235 million from illegal digital file sharing and a combined £205 million from secondary market effects across both forms of activity. The most recent industry survey shows that the £0.5 billion annual financial impact on the audiovisual sector has not changed since then<sup>93</sup>.

Based on a recent UK-wide survey<sup>94</sup>, legal downloads represent just 1% of all film viewings (including DVDs, VoD etc) which is less than the reported volume of peer-to-peer (P2P) file-sharing (2.5%) and file-sharing via cyberlockers or file-hosting services (1.1%). In all 16% of respondents said they had watched films via P2P sharing and 11% via cyberlockers although 17% said they had legally downloaded film content.

There have been numerous academic studies examining the impact of lost revenues to retailers or production companies due to the existence of piracy and ineffective copyright law enforcement. For example:

- Vany and Watts (2007)<sup>95</sup> undertake a direct quantitative analysis of a first run theatrical release in the UK, US, Spain and Argentina with its pirated competitor which was available two weeks before opening in theatres. They find a clear revenue loss to cinema exhibitors, including a direct loss in US theatrical revenue over a 14-week run of between \$30-50 million.
- Khouja and Rajagopalan (2008)<sup>96</sup> find no evidence that so-called 'beneficial' copyright infringement – in the form of network externalities – that has sometimes been discussed in the software industry applies to either the film or music industries.
- Walls (2008)<sup>97</sup> undertakes a 26-nation cross-country quantitative analysis of film theft, and finds that the cost of enforcing legal contracts is a statistically significant dependent variable – that is, the less effective are copyright laws, the greater the theft and infringement problem.

A regularly quoted study that estimated the current and potential economic impacts from copyright theft and infringement in the audio-visual industries was the 2010 report for the International

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<sup>91</sup> Source: *Technical report: An Estimate of Infringing Use of the Internet*, Envisional Ltd, January 2011

<sup>92</sup> Source: MPAA, cited in IFPI Digital Music Report 2010.

<sup>93</sup> Source: *Value of video entertainment*, Oxford Economics on behalf of BVA, 2011

<sup>94</sup> Source: *Portrayal vs. Betrayal: An investigation of diverse and mainstream film audiences*, UK Film Council and Harris Interactive, April 2011

<sup>95</sup> Source: A. De Vany and W. D. Walls. (2007), *Estimating the Effects of Movie Piracy on Box Office Revenues*, Review of Industrial Organisation, Vol 30, pp291-301.

<sup>96</sup> Source: Khouja, M. and Rajagopalan, H. (2008), *Can Piracy Lead to Higher Prices in the Movie and Motion Picture Industries?*, Journal of the Operational Research Society, January 2008.

<sup>97</sup> Source: Walls, W. (2008), *Cross-Country Analysis of Movie Piracy*, Applied Economics, Vol 40, Issue 5.

Chamber of Commerce<sup>98</sup>. This study suggests that across Europe in 2008, physical and digital copyright abuse combined cost the creative industries €10 billion in retail revenue and 185,000 jobs – by 2015, the cumulative effects could be as much as €240 billion and 1.2 million jobs, the report authors said, under a continuation of current trends and in the absence of significant policy changes. As a result, the report called copyright theft and infringement “a major threat to the EU’s economic performance” and said that “stemming the rising tide of digital piracy should be at the top of the agenda of policymakers in the EU and elsewhere”. In the UK, a total of €1.4 billion (around £1.3 billion) in revenue was said to have been lost to copyright abuse in 2008 (including software); of this, around €670 million (£610 million) was lost in direct commercial revenues from audiovisual products, including €308 million (£280 million) in films.

The lost film revenues are broken down across product type in Table 12.4 below. Based on the typical proportion of DVD film sales that are UK films (around 20-25%), this would imply a direct retail revenue loss of around £70 million to the core UK film industry in 2008.

**Table 12.4: Total revenue loss due to counterfeit and copyright infringed audiovisual products in the UK film industry (€million)**

	Digital copyright theft and infringement	Physical counterfeit products	Total combined impact
Theatrical	32	40	73
DVD sales	112	35	146
DVD rental	-	11	11
Official download	-	-	-
VoD/pay-per-view	74	2	77
TV	1	1	2
<b>Total film</b>	<b>219</b>	<b>89</b>	<b>308</b>

Source: TERA Consultants, March 2010

These losses were said to have cost the UK a total of 30,400 direct and indirect jobs across the creative industries – a figure which would include almost 14,000 direct and indirect jobs in the film industry, based on the share of lost revenue as shown above. However it should be highlighted that since this study’s publication there has been some scepticism over the methodology used including that it did not allow for leakage out of the domestic economy to foreign (mainly US) producers in its final GDP and job estimates<sup>99</sup>.

A 2009 Oxford Economics study<sup>100</sup> looked at the potential economic benefits to the UK audio-visual industries of implementing measures to tackle the estimated £500-600 million worth of copyright theft and infringement occurring every year. The report found that successful implementation of these measures could add around £615 million in revenues to all industries across the UK economy, through direct and multiplier effects, creating over £300 million in GDP, an additional

<sup>98</sup> Source: TERA Consultants, *Building a Digital Economy: The Importance of Saving Jobs in the EU’s Creative Industries*, report for the International Chamber of Commerce, March 2010.

<sup>99</sup> For further discussion see Piracy and Jobs in Europe – A Note on the BASCAP/TERA Study, SSRC.

<sup>100</sup> Source: Oxford Economics, *Economic Impact of Legislative Reform to Reduce Audio-Visual Piracy*, report for BVA, March 2009.

8,000 jobs, and £155 million in taxes to government. More generally, the study found that effective measures to combat audio-visual copyright theft and infringement would:

- **Create many jobs across numerous sectors of the UK economy, not just the audio-visual industries** – other sectors standing to gain include a variety of financial and business services (such as market research, advertising, accountancy, research and development, financial management and legal services); transport and communications; wholesale and retail; and hotels
- **Benefit the UK film industry and UK filmgoers in a variety of ways** – for example through generating an additional £40 million per year for every high-grossing production targeted by copyright theft and infringement (often UK/US co-productions), and an additional £50 million per year for cinema exhibitors, which could be reinvested to upgrade and refurbish existing cinemas, rollout new technologies such as digital and 3D, and prevent adverse community impacts caused by the loss of local cinemas.

Of course, the effect of audio-visual copyright theft and infringement on the core UK film industry is not limited to the distribution of counterfeit films – it will also be damaged by pirate copies of soundtracks, other film-related music, and video games. The knock-on impacts of a loss in revenue in any of these industries may also be felt in terms of reduced investment in new technologies, such as 3D or motion capture, and by a reduction in the number of new titles being released.

The UK's Digital Economy Act 2010 and its measures aimed at reducing online infringement of copyright are welcome but implementation of sections 3-16 dealing with copyright infringement was delayed by a judicial review of the Act. Ofcom is now moving ahead with the public consultations and the notifications to the European Commission which are necessary prior to the provisions on copyright coming into force. Ed Vaizey, Minister for Culture, said in August 2011: *"It is essential that businesses have the right tools to protect their hard work and investment in the digital age. Our creative industries must be able to protect their products and the Digital Economy Act will help them do that."*

### 12.3 Summary

The film industry's future will depend in many ways on its ability to react to, manage and exploit the rapid technological changes taking place. An important aspect of this will be succeeding in its efforts to reconcile the many emerging forms of content distribution and consumption with robust means of securing and appropriating the associated revenue streams. The global opportunity is large with the VoD industry forecast to reach \$18 billion by 2016, with online VoD set to grow by 21% per annum and reach \$11 billion from \$4.3 billion today (and overtaking TV based VoD by 2012).

## 13 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, supply chain and induced impacts and the contribution to UK tourism, trade and merchandise sales, we estimate that the core UK film industry in total:

- Supported 117,400 jobs in the UK in 2011.
- Contributed over £4.6 billion to UK GDP in 2011.
- Contributed over £1.3 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 75% of the total, with the remainder of the contribution accounted for by wider impacts such as tourism, trade and merchandising.

**Table 13 1: Summary of the economic contribution of the core UK film industry**

Channel of impact	Total contribution to UK GDP in 2011, £m	Total contribution to Exchequer revenues in 2011, £m	Employment impact in 2011
Direct	£1,600	£500	43,900
Multiplier (indirect and induced plus TV)	£1,600	£470	43,900
Total - Direct & Multiplier	£3,200	£970	87,800
British film box office effect	£100	£20	500
Tourism	£1,000	£230	21,000
Promotion/trade	£100	£20	1,500
Merchandising	£200	£110	6,600
<b>Total</b>	<b>£4,600</b>	<b>£1,300</b>	<b>117,400</b>

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. £m = £ million. GDP and employment figures are rounded to the nearest 100 and tax figures to the nearest 10.

Production spend on inward investment films accounted for 80% of total UK production spend in 2011. 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 94,400 jobs, contributing about £3.7 billion to UK GDP and £1 billion to Exchequer revenues (gross of tax relief and other fiscal support).

## Appendix A: Econometric analysis of the cultural value of UK film

To estimate the private cultural value of UK film, we used data from the BFI's database containing 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

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

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:

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

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

The objective of this system of equations is to 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>101</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 not statistically significant and we therefore dropped them from the final specification.

Our preferred equation is shown below. The 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

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<sup>101</sup> Source: Robertson, T, (2003), *Advertising effectiveness in UK film distribution*

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 (January 2000 to February 2012)

Dependent Variable:  $\log(BO_{jUK})$

	Coefficient	Std. Error	t-Statistic	Prob.
$\alpha$	-6.5	0.3	-21.9	0.0
$\beta$	0.3	0.1	5.9	0.0
$\delta$	0.3	0.0	23.3	0.0
$\gamma$	2.0	0.1	30.5	0.0
$\lambda$	0.6	0.0	34.3	0.0

where:

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

Observations: 2582 films

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R-squared	0.79	Mean dependent var	13.23
Adjusted R-squared	0.79	S.D. dependent var	2.39
S.E. of regression	1.10	Sum squared resid	3091.65
Durbin-Watson stat	1.90		

## Appendix B: About Oxford Economics

Oxford Economics – formerly Oxford Economic Forecasting – was founded in 1981 to provide independent forecasting and analysis tailored to the needs of economists and planners in government and business. It is now one of the world’s leading providers of economic analysis, advice and models, with over 300 clients including:

- International organisations
- Government departments in many countries
- Central banks around the world
- A large number of multinational blue-chip companies.

Oxford Economics commands a high degree of professional and technical expertise, both in its own staff of over 70 professionals based in Oxford, London, New York, Paris, the UAE, Singapore, Belfast and Philadelphia, and through its close links with Oxford University and a range of partner institutions in Europe and the US.

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- International macroeconomic, sectoral and regional forecasts – with country briefing reports covering 190 countries; detailed projections for 85 sectors; and forecasts for local areas throughout the EU and cities in Asia.
- Bespoke econometric modelling – building detailed forecasting and simulation models and training clients’ staff to use them to support budget planning and policy decision-making.
- Detailed market analysis – translating our economic forecasts into forecasts for market segments and providing advice on market opportunities.
- Briefings for ministers, senior officials and executives – both presentations and tailored written reports on key economic issues.
- Outsourced economics support – providing on-call advice, data, modelling, briefing and policy advice.
- Economic impact assessments – analysing the economic and social contribution of particular sectors, investment projects or tax proposals.





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