OXFORD ECONOMICS

DEVELOPING ECONOMIC INSIGHT INTO THE CREATIVE INDUSTRIES

REPORT FOR CREATIVE UK

JUNE 2021

CREATIVE INDUSTRIES FEDERATION

ABOUT OXFORD ECONOMICS

Oxford Economics was founded in 1981 as a commercial venture with Oxford University's business college to provide economic forecasting and modelling to UK companies and financial institutions expanding abroad. Since then, we have become one of the world's foremost independent global advisory firms, providing reports, forecasts, and analytical tools on more than 200 countries, 250 industrial sectors, and 7,000 cities and regions. Our best-in-class global economic and industry models and analytical tools give us an unparalleled ability to forecast external market trends and assess their economic, social, and business impact.

Headquartered in Oxford, England, with regional centres in New York, London, Frankfurt, and Singapore, Oxford Economics has offices across the globe in Belfast, Boston, Cape Town, Chicago, Dubai, Dublin, Hong Kong, Los Angeles, Melbourne, Mexico City, Milan, Paris, Philadelphia, Stockholm, Sydney, Tokyo, and Toronto. We employ 400 full-time staff, including more than 250 professional economists, industry experts and business editors—one of the largest teams of macroeconomists and thought leadership specialists. Our global team is highly skilled in a full range of research techniques and thought leadership capabilities, from econometric modelling, scenario framing, and economic impact analysis to market surveys, case studies, expert panels, and web analytics.

Oxford Economics is a key adviser to corporate, financial and government decision-makers and thought leaders. Our worldwide client base now comprises over 2,000 international organizations, including leading multinational companies and financial institutions; key government bodies and trade associations; and top universities, consultancies, and think tanks.

JUNE 2021

All data shown in tables and charts are Oxford Economics' own data, except where otherwise stated and cited in footnotes, and are copyright © Oxford Economics Ltd.

This report is confidential to the Creative UK Group and may not be published or distributed without their prior written permission.

The modelling and results presented here are based on information provided by third parties, upon which Oxford Economics has relied in producing its report and forecasts in good faith. Any subsequent revision or update of those data will affect the assessments and projections shown.

To discuss the report further please contact:

Alice Gambarin: agambarin@oxfordeconomics.com

Oxford Economics

5 Hanover Sq, 8th Floor
New York, NY 10004

Tel: +1 646-786-1879

TABLE OF CONTENTS

Executive summary 3
1. Introduction 5
2. The state of the UK creative industries before Covid-19 8
2.1 Introduction to our impact analysis 8
2.2 The direct impact of the UK creative industries 8
2.3 The indirect impact of the creative industries 13
2.4 The total economic footprint of the creative industries 14
3. UK creative industries outlook 22
3.1 The big picture 22
3.2 Outlook by creative segment 27
3.3 Outlook by region 29
4. Conclusion 35
Methodological appendix 36

EXECUTIVE SUMMARY

The creative industries are a diverse collection of businesses, workers, and freelancers across several different economic sectors. Following the UK Government Department for Digital, Culture, Media & Sport (DCMS) definition, we describe the creative industries as those "which have their origin in individual creativity, skill and talent and which have a potential for wealth and job creation through the generation and exploitation of intellectual property".

In this report, we estimate the creative industries' total contribution to the UK economy through the employment and GVA that they support directly and via their domestic supply chain.[1] We also present a short- and medium-term forecast for the sector, under both a baseline and an upside policy scenario.

> Touring around Europe is often perceived as the starting point as artist begin to build their global careers. It is very complex to deal with that level of admin and paperwork [required post-Brexit] when you are a one-man band
> **BPI**

THE CREATIVE INDUSTRIES MADE A SIGNIFICANT CONTRIBUTION TO THE UK ECONOMY BEFORE THE COVID-19 PANDEMIC…

The scale of the creative industries means that they were an important source of jobs and income before the pandemic. In 2019, the industries directly created 2.1 million jobs, based in areas right across the UK, and directly contributed £115.9 billion to UK GDP.

The creative industries made an even greater contribution when also accounting for their procurement expenditures. When including these, we estimate that the total economic footprint of the industries in 2019 supported 3.5 million jobs and £178.0 billion in GVA. The results therefore indicate that for every 10 jobs that the creative industries directly support, a further seven are supported elsewhere in the economy as a result of supply chain multiplier effects. Similarly, for every £1 that the industries contribute to the UK directly, a further £0.5 is supported through supply chain effects.

> The emergence of online platforms has facilitated international sales of UK craft
> **Crafts Council**

…BUT THE EFFECTS OF THE PANDEMIC ON THEIR GROWTH PROSPECTS WILL BE LONG LASTING

The effects of the crisis will affect the production of creative and cultural goods and services in the years to come. Estimates of the immediate damage of the pandemic on the creative industries suggest that GVA dropped from £115.9 billion in 2019 to £104.1 billion in 2020 (in 2019 prices) and an estimated 71,000 jobs were lost in that year, including employees and self-employed workers.

Covid-19 restrictions have not impacted all creative segments equally. According to our analysis, informed by DCMS data, music, performing & visual arts were the hardest hit by the pandemic in light of the protracted period of restrictions on live

[1] Throughout this report, we refer to the creative industries "gross value added" (GVA) contribution to gross domestic product (GDP). In simple terms, GVA is the sum of income generated by the industry in the form of employee compensation, business profits, and taxes on production.

performances and will not return to pre-pandemic levels within our forecast period (2021-25). Museums, galleries, and libraries were the second hardest hit segment.

Accounting for the medium-term impacts of the pandemic, under our baseline scenario, we expect that by 2025, the UK creative industries could directly create 2.2 million jobs and £127.2 billion in GVA (in 2019 prices). However, in the absence of responsive public support and recovery strategies, the downsizing of creative sectors is likely to have a negative impact on cities and regions not only in terms of jobs and revenues, but also on the levels of innovation, citizen well-being, and the vibrancy and diversity of communities. In addition, unlike more domestically focused industries, the creative sector relies heavily on a dense global calendar of events, from art fairs to international tours, which have all been severely affected not only by the pandemic but also by Brexit.

The downsizing of creative sectors is likely to have a negative impact on cities and regions not only in terms of jobs and revenues, but also on the levels of innovation, citizen well-being, and the vibrancy and diversity of communities
OECD

For this reason, and in order to maximise the creative industries' ability to contribute toward the UK's post-pandemic regeneration, government investment and support is needed. We therefore provide a high-level scenario to demonstrate the impact of increased investment on the sector's contributory potential. Under this more ambitious scenario, capital expenditure and intangible investment is projected to grow by 20% in real terms from 2019 levels (as opposed to 10% in our baseline scenario). In this scenario, we estimate that the UK creative industries direct contribution to GDP could rise to £132.1 billion (in 2019 prices) by 2025, with industry employment of 2.3 million. While our analysis does not differentiate the impact of this additional investment by region or creative segment, we believe the nine creative clusters would be major beneficiaries, both directly and indirectly.

1. INTRODUCTION

> Intellectual Property protection is extremely important in any trade deals
> **AudioUK**

Prior to the pandemic, the creative industries were among the fastest growing parts of the UK economy. Since 2011, industry GVA growth has outstripped the rest of the UK economy, with particularly notable outperformance recorded in both 2015 and 2019.[2] According to the latest DCMS statistics, in the period October 2019 to September 2020, there were 2.2 million jobs in the creative industries.[3]

A few months into the pandemic, the House of Commons DCMS Committee warned that Covid-19 presented "the biggest threat to the UK's cultural infrastructure, institutions and workforce in a generation".[4] In response to these warnings, in July 2020, the DCMS and Her Majesty's Treasury (HMT) announced £1.57 billion in funding for cultural, arts, and heritage institutions. By 11 December 2020, £1 billion worth of funding had been allocated. However, the Committee questioned whether the funding was sufficient to safeguard the sector.

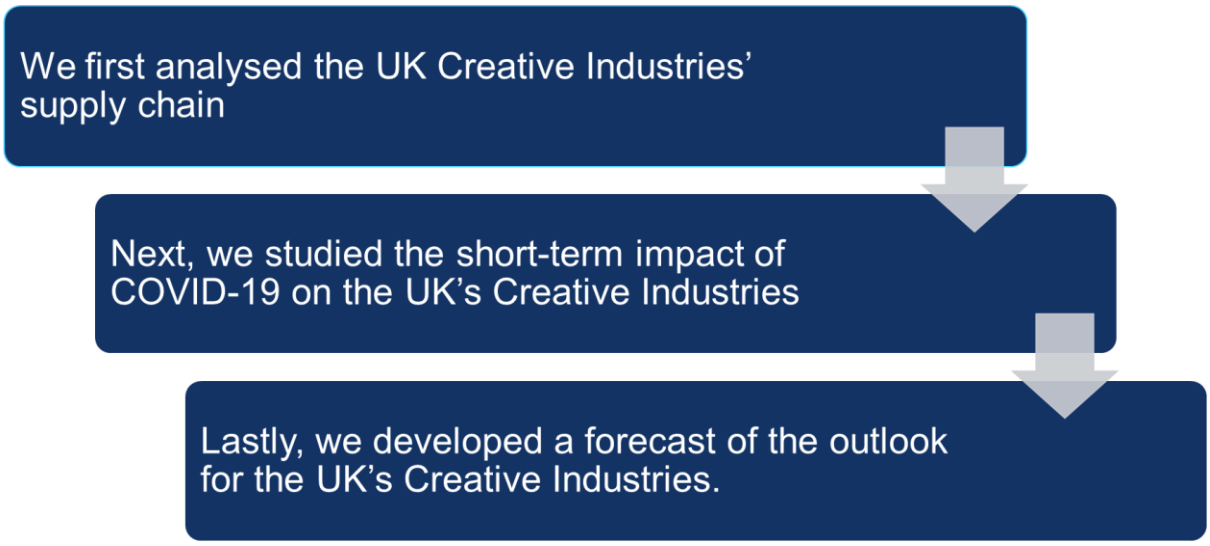
In order to contribute to the knowledge base in this space and inform policymakers of the sector's economic value, the Creative UK Group is undertaking a "State of the Nation" project, bringing together a comprehensive snapshot of the creative industries, across all regions and creative segments. To support this ambitious piece of work, Oxford Economics was commissioned to undertake economic analysis across the following areas (Fig. 1):

(1) Analysing and outlining the UK creative industries' supply chain, as part of a wider industry profiling exercise.
(2) Undertaking an economic analysis of the short-term impact of Covid-19 on the UK's creative industries, as part of a broader analysis of the current state of play.
(3) Undertaking economic forecasting on the medium-term future economic contribution of the UK's creative industries across all regions and creative sub-sectors.

This report is the result of this three-step analysis. It begins by introducing the UK creative supply chain (Chapter 2). In Chapter 3, we set out our forecast for the short- and medium-term size of the creative industries. The final section summarises the key takeaways and conclusions.

[2] DCMS Economic Estimates 2019 (provisional): Gross Value Added, Updated 19 February 2021
[3] DCMS Sector Economic Estimates: Employment Oct 2019 - Sep 2020, Published: 21 January 2021
[4] House of Commons Digital, Culture, Media and Sport Committee. Impact of COVID-19 on DCMS sectors: First Report. Published on 23 July 2020'

Fig. 1. Methodology: a three-step approach



DEFINING THE CREATIVE INDUSTRIES

In this report, we define the creative industries as relating to the following products and services:

- Advertising and marketing
- Architecture
- Crafts
- Design and designer fashion
- Film, TV, radio, and photography
- IT, software, and computer services
- Publishing
- Museums, galleries, and libraries
- Music, performing and visual arts

To estimate the economic impact of the industries' provision of the above products and services, we consider the size of the following sectors as defined under the standard industry classifications used in economic statistics:

- 3212 : Manufacture of jewellery and related articles
- 5811 : Book publishing
- 5812 : Publishing of directories and mailing lists
- 5813 : Publishing of newspapers
- 5814 : Publishing of journals and periodicals
- 5819 : Other publishing activities
- 5821 : Publishing of computer games
- 5829 : Other software publishing
- 5911 : Motion picture, video, and television programme production activities
- 5912 : Motion picture, video, and television programme post-production activities
- 5913 : Motion picture, video, and television programme distribution activities
- 5914 : Motion picture projection activities
- 5920 : Sound recording and music publishing activities
- 6010 : Radio broadcasting
- 6020 : Television programming and broadcasting activities
- 6201 : Computer programming activities
- 6202 : Computer consultancy activities
- 7021 : Public relations and communication activities
- 7111 : Architectural activities
- 7311 : Advertising agencies
- 7312 : Media representation
- 7410 : Specialised design activities
- 7420 : Photographic activities
- 7430 : Translation and interpretation activities
- 8552 : Cultural education
- 9001 : Performing arts
- 9002 : Support activities to performing arts
- 9003 : Artistic creation
- 9004 : Operation of arts facilities
- 9101 : Library and archive activities
- 9102 : Museum activities

While this definition is by no means perfectly comprehensive, it resulted from thorough and detailed consultations with interested parties, including industry organisations and partners.[5] The current definition uses the idea of “creative intensity” (the proportion of people doing creative jobs within each industry) to determine which industries should be included. If the proportion of people doing creative jobs in a particular industry is substantial, above a 30% threshold, the industries are included within the creative industries classification. The rationale is to produce a classification that provides direct estimates of employment and GVA contribution, with no double counting. The classification generated in this way can be used as a starting point for indirect estimates which include wider economic effects along the supply chain.

[5] Department for Digital, Culture, Media & Sport, "Classifying and Measuring the Creative Industries", April 2013.

2. THE STATE OF THE UK CREATIVE INDUSTRIES BEFORE COVID-19

This chapter assesses the "economic footprint" of the creative industries' day-to-day operations during 2019. The scale of the industries' employment and spending means that they support a substantial economic impact across all nations and regions of the UK. We use economic modelling to quantify this UK-wide impact, and then show how the creative industries can be a particularly important contributor to local economies regardless of their direct presence.

> Creativity is hugely valuable and investment is crucial to ensure that no young person misses out on art, culture and creativity as part of their education.
> **Arts Council England**

2.1 INTRODUCTION TO OUR IMPACT ANALYSIS

We assess the impact of the UK creative industries using a standard means of analysis called an economic impact assessment. This involves quantifying the industries' economic footprint through their:

- **Direct impact**—this encompasses the economic activity and employment supported by the creative industries' own activities in the UK.
- **Indirect impact**—this reflects the economic activity and employment supported in supply chains as the UK creative industries purchase goods and services from other domestic businesses.

This approach enables us to build a picture of the creative industries' total contribution to the UK economy across two key metrics:[6]

- **GDP**—more specifically, the creative industries "gross value added" (GVA) contribution to gross domestic product (GDP). In simple terms, GVA is the sum of income generated by the industry in the form of employee compensation, business profits, and taxes on production.
- **Employment**—total number of jobs supported by the industries' activity, including employed and self-employed workers.

The modelling upon which this report is based computes the economic footprint of the creative industries in the UK for 2019, based on the latest economic data available at the time of writing.

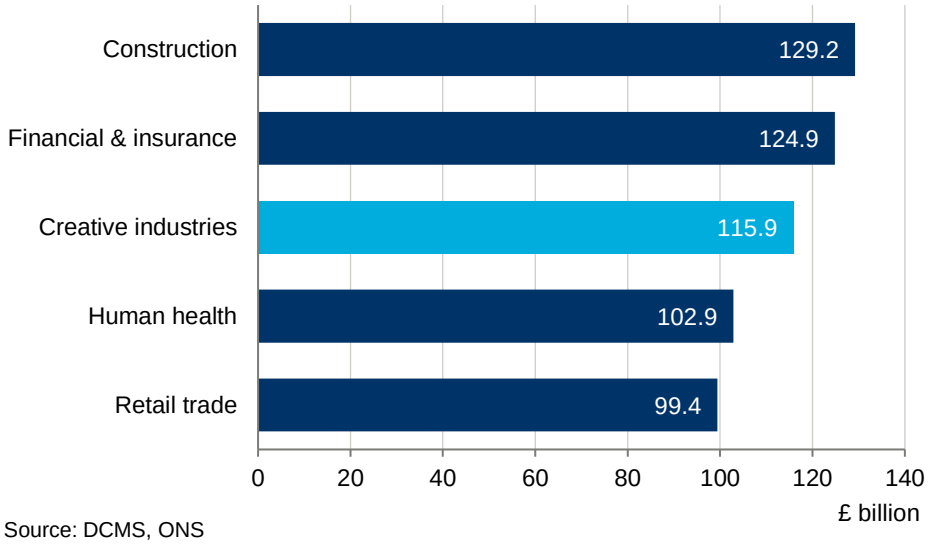
2.2 THE DIRECT IMPACT OF THE UK CREATIVE INDUSTRIES

In 2019, the creative industries directly contributed £115.9 billion to UK GDP equivalent to approximately 6% of the UK total. To give a sense of scale, this is a larger GVA contribution than the entire human health services sector, and a slightly

[6] The impact results are presented on a "gross" basis. They therefore ignore any displacement of activity from other industries. Nor do they consider what the resources currently used by the creative industries or stimulated by their expenditure could alternatively produce in their second-most productive usage. Our economic impact analysis therefore estimates the actual economic footprint of the creative industries in the UK each year but does not estimate the extent to which the size of the UK economy might differ if the creative industries did not exist.

smaller footprint than finance and insurance (Fig. 2). The actual 2019 GVA contribution is slightly above our previous estimate of £114 billion from our 2020 study "The projected economic impact of Covid-19 on the UK creative industries", suggesting the industry growth outperformed our model's predictions before the pandemic.

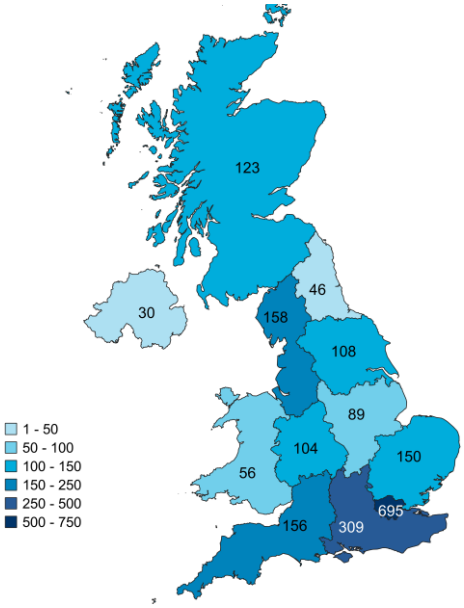
Fig. 2. Creative industries GVA in context, 2019



Source: DCMS, ONS

In that same year, UK creative industries directly created 2.1 million jobs, with the largest concentrations in London (688,000), the South East (334,000), and the East of England (166,000), as displayed in Fig. 3.

Fig. 3. Distribution of creative industries jobs by nation/region, 2019



Of the £115.9 billion direct GVA, by far the largest contribution came from creative IT, software, and computer services, at 41% of the total, which includes the publishing of computer games. Film, TV, radio, and photography contributed a further 19%. The largest component of creative employment was also the IT, software, and computer services sector, with 775,000 or 37% of the total creative industries employment—reflecting the relatively capital-intensive nature of this sector. Music, performing & visual arts and film, TV, radio, & photography employed approximately another 15% and 11% of the total, respectively.

CREATIVE INDUSTRIES AND BREXIT

What does the post-Brexit future look like for the UK's creative industries? We spoke with a group of industry experts, ranging from sub-sector trade organisations and charities to public bodies throughout the UK, to seek their views and gather insights on the major challenges the industries are facing.

Restrictions to free movement of people

In the post-Brexit era, UK performers and their support teams will be required to seek work visas and permits to tour in EU countries, and EU artists will need to do the same when touring in the UK. Talks of an exemption for artists and creators seem to have collapsed, thereby adding huge costs to tours of the continent. These not only encompass the cost of the visa itself, but more importantly the administrative cost of the workload involved to fully understand the complex set of rules and complete the necessary paperwork.

The British Phonographic Industry (BPI), the recorded music industry's trade association, stressed that touring required a vast amount of planning even before Brexit, and explained that the current Brexit-related uncertainties, compounded with the unique Covid-19 travel restrictions, are making it virtually impossible for performers to plan ahead, and this could delay the industry's recovery further. In response to this, in February 2021 an announcement was made about the possibility of establishing a new UK-wide government-funded creative industries export agency to help performers with international gigs navigate all the new visa issues caused by Brexit. Such an office might then also run other projects to support British creators looking to pursue export opportunities into new markets.

While Brexit uncertainties are mostly affecting live performances, they are also hurting creative workers across many other segments, such as musicians wanting to book recording sessions in another EU country. In the visual arts sector, for example, creative product makers used to often participate in international trade fairs to showcase their products, and movement restrictions may affect their ability to export effectively.

In addition, for some creative professions, including architecture, Brexit comes with additional challenges related to the dismantling of mutual recognition of professional qualifications. Architects from the EU who already have their qualifications recognised in the UK by the Architects Registration Board will be able to continue practising. However, those that are not yet registered will not automatically be guaranteed that their qualifications will be recognised. In addition, a pre-Brexit survey revealed that half of EU architects were considering leaving the UK due to Brexit, potentially creating serious skill shortages in the sector.

Visa regulations might deter international talent across all creative industries. The executive producer of the Akram Khan dance company said "our art form thrives on different bodies and perspectives—we invigorate ourselves by different ways of doing and seeing things. I would worry if we don't have access

to that talent." He also added "are they going to do that with football teams? That's the perfect example of what happens when you bring global talent together—[without it] the Premier League would lose its global appeal." Echoing this, the executive producer at Hofesh Shechter dance Company recently called for the length of the Tier 5 certificate of sponsorship to be extended from three months to six, and that visas for paid engagements in the UK are lengthened from the current single month.[7] Festivals Edinburgh expressed the concern that many businesses in the creative industries do not have the capacity to manage a burdensome bureaucratic system (making it more difficult to obtain visas would be detrimental to festival volunteers and temporary employees, for example) and stated that a more restrictive system of allowing EU performers into the UK could diminish the diversity of Edinburgh's festivals.[8]

Lastly, for many creative workers like musicians, artists and freelance TV producers the end of free movement within the EU could have other harmful consequences. Creative Scotland research suggests that "some of these workers may live in Scotland and work all across Europe. If they cannot move freely to the EU, then there may not be enough work to sustain them in Scotland and the nation may lose workers to London (or other UK metropolitan regions) where there is enough activity to sustain workers completely without EU travel."[9]

Restrictions to free movement of goods

When the UK was part of the European Union's customs union, goods could move freely between the country and other member states without import taxes being charged. After Brexit, EU companies sending goods to the UK need to fill out customs declaration forms, and UK buyers may also need to pay customs or import VAT charges (with many items charged at 25%), making it much more expensive to import goods. An additional problem is that buyers often have no idea of how much the eventual extra cost might be and they only find out when the item reaches the UK.

While this is very disruptive for final consumers, it is even more damaging for businesses that use imported goods as intermediate products, such as makers of jewellery. The UK Crafts Council, the national charity for craft, expects VAT charges and rules of origin to create major disruptions to its sector, especially because their products are often made assembling components from different countries and this makes both imports and exports more difficult and expensive. New rules for trading animal and plant-based products are also affecting the UK leather industry, among others, with some products now requiring a Health Certificate to cross the border between the UK and the EU.

Added to this, Crafts Council suggested EU countries' lack of preparedness for post-Brexit regulations and documentation is creating delays associated with paperwork to clear customs, further adding to supply chain disruptions. There also still seem to be major delays caused by paperwork confusion, whereby goods remain blocked with carriers or in warehouses for weeks, creating problems particularly for small enterprises.

[7] The Guardian, "Devastating, unviable, admin overload: UK stage companies count cost of Brexit", 24 February 2021.

[8] Festivals Edinburgh. (2016, October). Written evidence submitted to the House of Commons, to the Digital, Culture, Media and Sport Committee

[9] Ernst & Young LLP, "Brexit and businesses: sectoral impact analysis", January 2019.

"Several large British companies are opting to set up operations inside the EU, but this is unrealistic for many smaller operations or individuals" reported the Crafts Council. Glass artist Colin Reid has witnessed international glass suppliers he previously dealt with in Britain shifting their European operations elsewhere. Similarly, furniture designer Nell Beale, who was selling 20-25% of her products to EU customers, said "I've actually suspended EU orders until further notice and I'm considering registering my business in France as well the UK in the near future." Designer Peter Marigold reported having started the process of moving production of Formcard (a bioplastic product he produced in the UK) into the EU and added this "is going to really hurt the factory I work with here, which is a small family business that can't just move out of the UK."'[10]

In a pre-Covid survey run by the Creative Industries Policy & Evidence Centre, some UK fashion designers and retailers also reported having offshored production or having planned to move plants/ warehouses to an EU country. Some also declared having stocked up on raw materials before Brexit and having postponed investment plans such as expansion and innovation-related expenditures due to Brexit. In a recent report, Fashion Roundtable, a think tank and trade association, called for investments in new technical skills, upgrades in product quality, and entering new production phases of the value chain (such as upstream manufacturing). According to the organisation, these interventions would boost the confidence of those UK fashion designers and retailers that have seen their supply networks disrupted by new red tape, and that now need to source some production components domestically to remain internationally competitive.[11]

Free movement of goods and equipment also provided an important framework for international activity for those undertaking international touring or making arrangements for international exhibitions, according to Arts Council England research. Changes to the carnet system after Brexit could make international activity involving equipment more complex and costly. [12] In particular, tour organisers, touring companies, or sometimes the performers themselves may need to pay for a carnet to allow goods (such as instruments and electronic equipment) to move temporarily outside the country, and general haulage costs are also expected to rise significantly, according to the BPI.

IP retention and protection

Some creative segments, particularly those producing digital goods, offer products with a truly global reach, and for these goods Brexit could represent an opportunity to strengthen the UK's competitive advantage vis-à-vis other global players. One example is podcast production, an industry with a very strong domestic market, but also characterised by a huge export potential thanks to global platforms like Spotify and the widespread use of the English language.

The pandemic has contributed positively to podcast demand; at the beginning of the Covid-19 outbreak (March 2020), Spotify app download data showed a spike in downloads in many countries. Goldman Sachs Research estimates that global paid streaming penetration will grow from 8% in 2019 to 21% in 2030, suggesting additional growth potential in the years to come.[13] While other Anglophone countries are seeing great demand growth for audio products, the UK might also consider expanding further,

[10] Crafts Council, "How have craft businesses been hit by Brexit?", 3 March 2021.

[11] Creative Industries Policy & Evidence Centre, "The Brexit shock in the UK's fashion and textile industry", 31 March 2021.

[12] ICM Unlimited, "Impact of Brexit on the arts and culture sector", *A report for the Arts Council England*, 2017.

[13] Goldman Sachs Equity Research, "Music in the Air: the show must go on", 14 May 2020.

potentially exploring translation into other languages for some of its most popular products. For instance, the Goldman Sachs paper cited above predicts that China and India will contribute a significantly larger share of global streaming subscribers by 2030.

A fundamental concern, however, remains the protection of Intellectual Property (IP), a cornerstone for many export-oriented creative sectors. Organisations such as the BPI and AudioUK (the trade association for professional audio production companies) stressed the fundamental importance of IP protection in any trade deals. In general, industry experts agree it is extremely important to maintain a robust and properly enforced IP regime (including copyright, EU trademarks, and designs), as well as reciprocal market access for the distribution of film and TV productions and audio-visual services, for example.

The BPI also stressed that creative industries' IP needs to be higher up in the post-Brexit trade negotiation agenda in recognition of the value it creates to the UK economy. The British Film Institute adds that "for both UK and European producers, it is incredibly important to make sure that we continue to have very robust protection for copyrighted TV and film works, for both sides of the equation".

While much can be done in this respect as part of bilateral trade deals with non-EU countries, PACT (the trade association for UK independent television, film, digital, children's and animation media companies) noted that the UK-EU Trade and Cooperation Agreement (TCA) already goes beyond WTO international obligations with regards to IP protection. For example, the TCA includes higher standards on copyright duration and rights of authors, performers, producers, and broadcasters. The UK and the EU also committed to cooperation on collective rights management for creators, to ensure that UK creators receive revenue from the use of their works in the EU and vice versa, which is particularly important for international artists.[14] Nevertheless, the BPI believes that "further guidance is required on the IP aspect of the Brexit Deal, as it is currently unclear how this will play out in practical terms".

Another important theme, especially for the video games industry, is the free flow of data between the UK and the EU. TIGA, the trade association representing the video games industry, explains that "games development requires the use of a large amount of personal and non-personal data and the free flow of such data is therefore essential to games publishing and to the operation of online games platforms." The UK and EU have agreed to facilitate the cross-border flow of data, but the TCA does not include a determination that the UK provides an adequate level of protection for personal data. TIGA considers it "important for the UK video games industry that an adequacy agreement on data protection is reached between the EU and UK."[15]

2.3 THE INDIRECT IMPACT OF THE CREATIVE INDUSTRIES

The economic impact of the creative industries extends beyond their direct contribution to the UK economy. We calculate the "indirect impact", which captures the activity stimulated by the industries' procurement from their UK supply chains.

[14] UK Parliament, "Beyond Brexit: trade in services", 2018.

[15] TIGA, "Beyond Brexit: TIGA's Priorities for a UK – EU Trade Dea", 16 June 2020.

In 2019, the creative industries spent an estimated £123.3 billion with suppliers right across the UK. This figure included all purchases of goods, materials, and services. This spending supported activity not only amongst the companies the industries purchase from, but also amongst their suppliers, their suppliers' suppliers, and so on, right down the UK supply chain. As such, the creative industries' spending impacted on a wide range of companies in different industries across the UK.

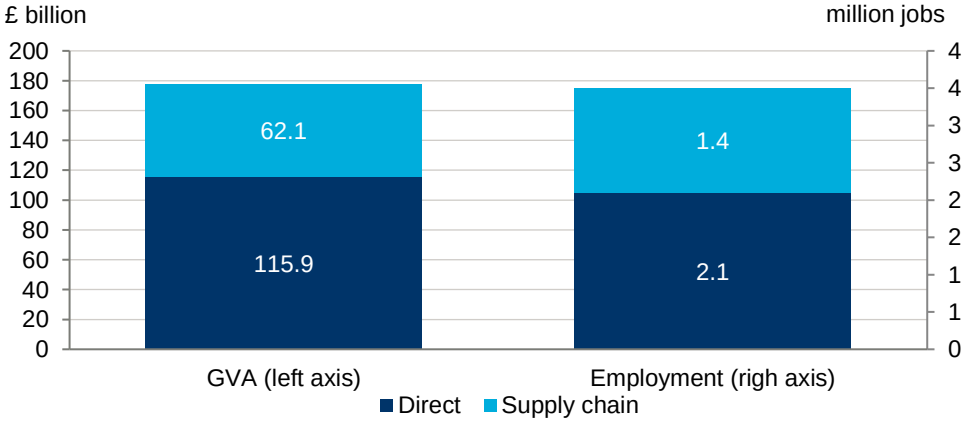
In total, we estimate that the indirect impact of the creative industries' supply chain purchases supported 1.4 million jobs and a £62.1 billion contribution to UK GDP in 2019. While the impact of Covid-19 on the industries' supply chain is not modelled, we expect suppliers to have lost many income opportunities as a consequence of the decline in creative activities. A European Parliament study suggests that, across Europe, the food and technical support suppliers for festivals, fairs, events, and exhibitions were among the hardest hit.[16]

2.4 THE TOTAL ECONOMIC FOOTPRINT OF THE CREATIVE INDUSTRIES

By bringing together the direct and indirect impacts described above we can estimate the total "economic footprint" that the creative industries support. We estimate this footprint to incorporate 3.5 million jobs and a £178.0 billion contribution to UK GDP (Fig. 4). These figures equate to 10.7% of all employment in the UK, and 9.0% of UK GVA in that year.

These results mean that for every 10 jobs that the creative industries directly create, a further seven are supported elsewhere in the economy as a result of supply chain multiplier effects. Similarly, for every £1 that the industries contribute to the UK directly, a further £0.5 is supported through supply chain effects.

Fig. 4. Direct and indirect impact of the UK creative industries, 2019



Source: Oxford Economics

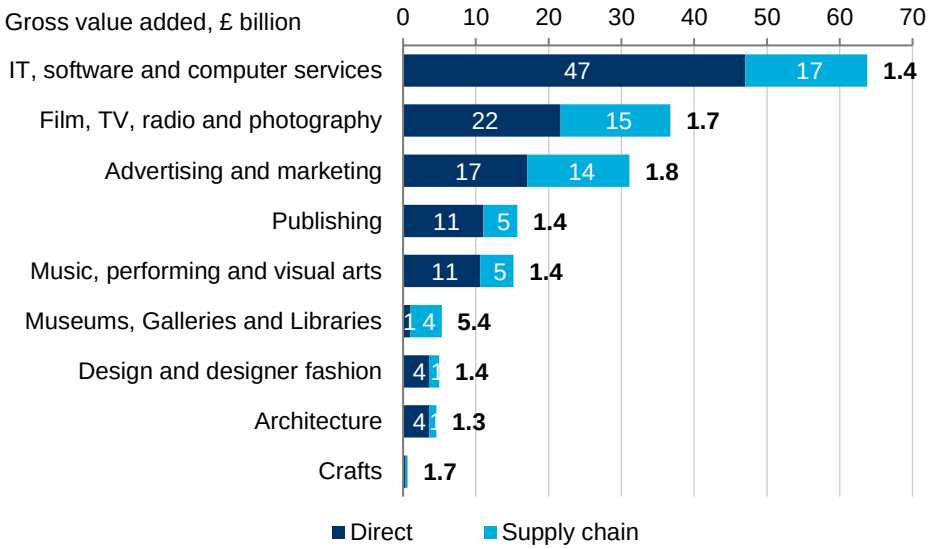
[16] IDEA Consult, Goethe-Institut, Amann S. and Heinsius J. 2021, Research for CULT Committee – Cultural and creative sectors in post-Covid-19 Europe: crisis effects and policy recommendations, European Parliament, Policy Department for Structural and Cohesion Policies, Brussels

2.4.1 Results by creative segment

Each creative segment relies on a range of non-creative suppliers for their day-to-day operations. The extent of this reliance very much depends on the nature of the good or service offered. For example, due to their predominantly non-profit nature, museums, galleries, and libraries are characterised by low direct GVA impacts (profits are an important component of gross value added, so in the absence of them, GVA is generally lower). They also rely heavily on non-creative suppliers, including for example insurance providers, suppliers of printed materials, and legal professionals. As a result of these factors, this sector is characterised by a relatively large GVA multiplier (for every £1 directly generated at museums, galleries, and libraries, their supply chain supports another £4.4 elsewhere in the UK economy, see Fig. 5).

On the other hand, architecture businesses tend to depend heavily on other architecture companies, as well as marketing services, which form part of the creative industries' direct impact. Their non-creative supply chain impact is therefore relatively smaller, with a GVA multiplier of 1.3 (for every £1 directly generated at advertising and marketing businesses, their supply chain supports another £0.3 elsewhere in the UK economy).

Fig. 5. Impact by creative segment, 2019 (multipliers in bold)



Source: Oxford Economics

2.4.2 Results by nation and region

As shown in section 2.2, the highest proportion of creative industry jobs is based in London, and so are many of the suppliers of the creative industries, from professional services to accommodation & food outlets. However, the South East, the East of England, and the West Midlands are key regions for the creative industries' supply chain (Fig. 6).

Interestingly, while London experiences the largest supply chain-induced economic impacts in absolute terms (£12.3 billion in indirect GVA), it is also the region with the lowest GVA multiplier (1.2). This means that for every £1 directly created by the creative industries themselves in London, only £0.2 are supported in the non-creative regional economy. This is because much of the London-based supply chain tends to be clustered within the creative sector itself (for example, architecture businesses purchasing London-based marketing services), which is not double counted as part of the total impact. The South East displays similar results for similar reasons.

On the other hand, non-creative services such as legal and accounting services can just as well be purchased from neighbouring nations and regions, which also have high concentrations of these sectors, and are still close enough to the purchaser's location.

> We want to build on continued success, developing our indigenous film & television companies and continuing to promote Wales as a top location for all types of production
> **Creative Wales**

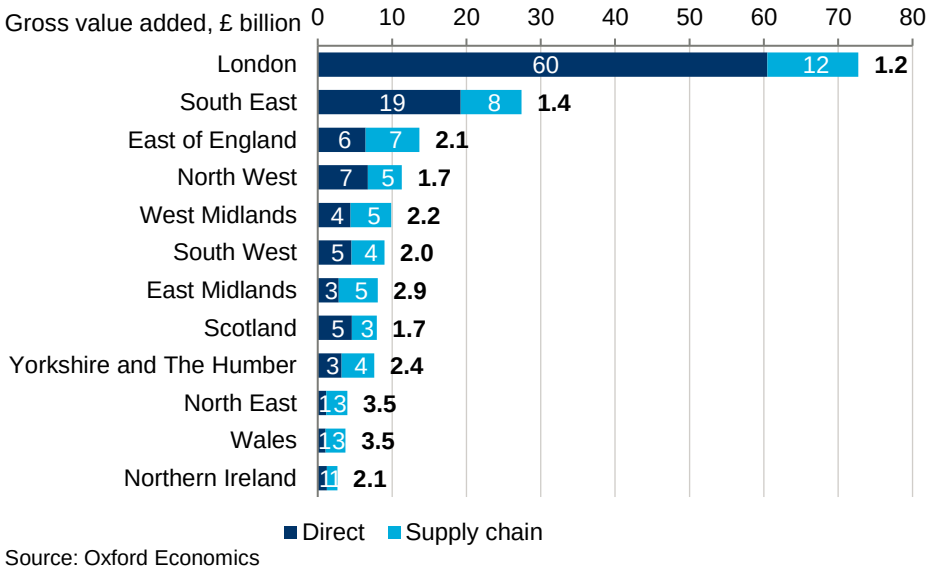
For example, despite its very small direct creative footprint, the North East benefits greatly from neighbouring region's creative businesses' purchases. The thriving local digital sector, for instance, is a major supplier to creative businesses in neighbouring North West, including for example the Manchester creative hub. This is translated into the relatively large GVA multiplier at 3.5 (for every £1 directly generated in the region, another £2.5 elsewhere in the North Eastern economy via supply chains).

Similarly, the Welsh creative industries are also relatively small, but the region's multiplier is large. For example, if a London-based film company decides to shoot in Wales, it might hire welsh crew through an employment agency (rather than bringing people in from London) and this supports economic activity locally. Successful shows such as Doctor Who, His Dark Materials, Hinterland, Torchwood and Sherlock were all filmed in Wales.

Among the other devolved nations, we find that, for every £1 directly created by the creative industries in Northern Ireland, another £1.1 is supported elsewhere in the national non-creative economy. This relatively large multiplier can be due to geographical reasons that make it most convenient for NI-based creators to purchase most of their intermediate goods and services locally. But this is only possible if the non-creative portion of the economy is sufficiently developed and initiatives are being implemented to ensure this is the case. For example, the Future Screens NI programme brings together the University of Ulster, Queen's University Belfast and industrial partners to expand national capabilities in digital content, VR/AR, film & TV production, and animation, all of which can directly or indirectly boost the size of the sector. The programme is a successful example of the commitment to "realise the region's levelling-up promise, supporting long-term economic and social prosperity", reports UK Research and Innovation (UKRI).

Lastly, Scotland also displays an above-average multiplier (1.7). A great example of a service that forms part of the creative industries' supply chain is education. SDI (Scottish Development International) estimates that over 175 gaming-related courses are offered across the 16 Scottish universities. Therefore, a gaming producer (based anywhere in the UK) may choose a Scottish institution to train its workforce and this could boost the non-creative economy of the region.

Fig. 6. Impact by region, 2019 (multipliers in bold)



Source: Oxford Economics

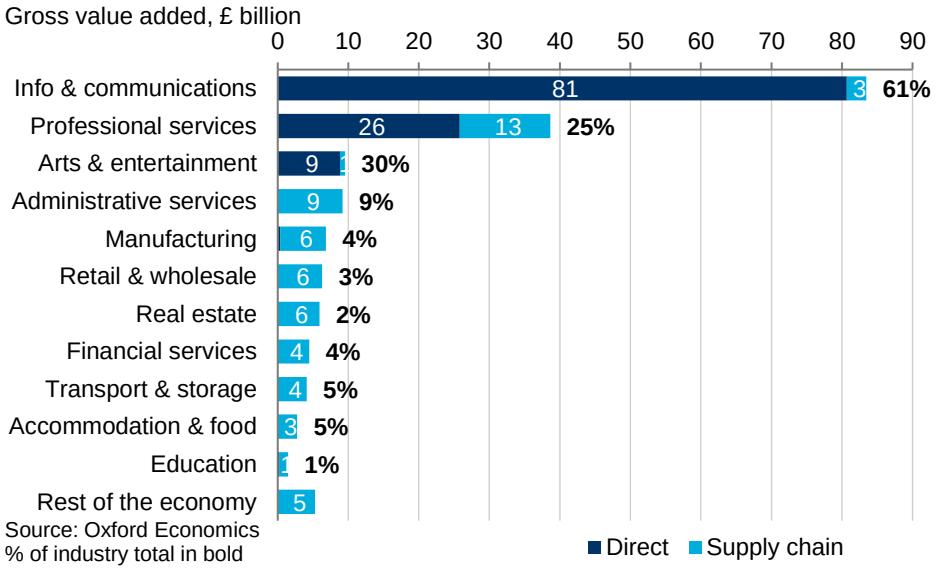
2.4.3 Results by industry

A final breakout of the impact results displays the findings by industry. As discussed in section 2.2, creative computer programming is the largest component of the creative sector, and it is included in the information and communication sector, alongside with publishing activities, motion picture, video and TV programme activities, sound recording, and broadcasting services (Fig. 7). Some 61% of the information and communication sector is directly or indirectly supported by the creative industries.

The second largest industry is professional services, which encompasses PR and communication activities, architectural services, advertising and media representation, design, photographic, and translation services. These industries form part of the direct size of the creative sector, totalling £25.8 billion in GVA. Another £12.8 billion in GVA is supported among non-creative professional services businesses, such as legal and consulting services providers. These two effects combined suggest that a quarter of all professional services GVA is directly or indirectly supported by the creative sector.

Interestingly, only about 30% of the arts and entertainment sector is supported directly or indirectly by the creative industries. This is because a large portion of the sector is made up by sport-related activities, which are neither part of the creative sector, nor form an important part of its supply chain.

Fig. 7. Sectors benefitting from creative industries' direct operations and supply chain



Source: Oxford Economics
% of industry total in bold

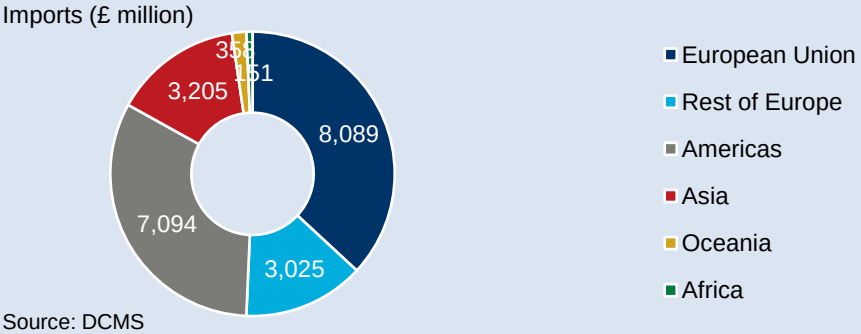
INTERNATIONAL SUPPLY CHAIN AND EXPORT OPPORTUNITIES

Imports

In 2019, the creative industries spent an estimated £123.3 billion with suppliers right across the UK and another £21.9 billion worth of goods and services were imported from elsewhere in the world. About half of this imported amount came from European countries, £8.1 billion of which from EU countries (Fig. 8). This highlights the high interdependencies and cross-border dimension of the UK creative industries' supply chain within the European Union.

Another third of the industries' imports came from the Americas; in particular, UK-based creative companies imported £6.6 billion from US suppliers, the main trade partner across most creative segments. Ireland played a major role in supplying goods and services to the advertising and design industries, while India was a key partner for the IT and computer services sector. Swiss firms mainly supplied goods and services to the publishing and IT sectors.

Fig. 8. Creative industries import of services by region, 2019



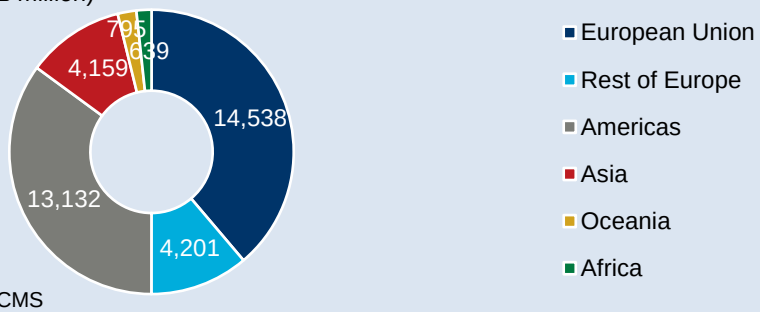
Source: DCMS

Exports

In 2019, £37.9 billion worth of **services** were exported by the UK creative industries, equivalent to 11.9% of total UK service exports in that year, an increase from 9.4% in 2015. About half of this exported amount went to European buyers, £14.5 billion of which to EU buyers (Fig. 9). Another third of the industries' exports went to American customers; in particular, UK-based creative companies exported £13.1 billion to US companies and consumers, the main recipient of creative exports across most creative segments. Germany played a major role in importing goods and services from the UK IT, software and computer services sector, the publishing industry, and the music, performing & visual arts. Ireland was a key export recipient for the advertising and marketing sector, while French firms and consumers mainly purchased services from the UK publishing industry, and music, performing & visual arts.

Fig. 9. Creative industries export of services by region, 2019

Exports (£ million)



Source: DCMS

While the above only covers services exports, the crafts sector is a major good exporting industry in the UK, with over £4.8 billion worth of **goods** exported in 2019 alone, mostly to France and Switzerland. Paintings, antiques, and sculptures are also key exported goods, with a combined value of £3.8 billion exported in 2019, mostly to the US and Hong Kong.[17] Printed books and brochures' exports were worth £1.9 billion in that same year, with the US being the main recipient. The UK is also known for world-famous video games, with one of its most notable exports being Grand Theft Auto 5, the fastest-selling video game of all time, which grossed $1 billion worldwide in its first three days.

According to sector experts, major **trade opportunities** for the post-Brexit era lie in the US (for example, AudioUK stressed the possibility to sell more podcasts and podcast-making expertise to the US in the future), Switzerland, and the Gulf states (especially for crafts, jewellery, and gem stones). For digital goods, the most promising opportunities are expected to be in markets that are just beginning to take up digital technology. For example, 5G technology can be used by the music industry to enhance production, live content distribution and audience experience. Asia and Latin America are particularly important markets for UK recorded music exports and their importance will grow further as their share of the global market increases. According to the GSA 5G Market Snapshot, countries like Mexico, Chile, Argentina, and India are all still in the process of investing in 5G.

There are also opportunities to boost UK export returns by enforcing improved IP rules through trade deals; for example, countries that do not currently recognise playing music in public as usage of

[17] The Observatory of Economic Complexity: https://oec.world/en/profile/country/gbr#trade-products

copyright could be required to start paying royalties. For instance, the Comprehensive Economic Partnership Agreement between the UK and Japan includes enhanced intellectual property protections. Similar protections are also included in the trade deals signed with Switzerland, Canada, Turkey, Singapore, South Korea, and the Southern Africa Customs Union and Mozambique (SACUM) trade bloc, among others.

A recent BPI report estimates that streaming can drive UK music exports to more than £1 billion by 2030 with Government support.[18] To achieve this target, the study calls on the Government to: renew the Music Export Growth Scheme; introduce incentives to music production in the UK; and ensure that high standards of copyright protection are enshrined in trade agreements. For the recorded music sector, key trade opportunities include Europe—with Germany, France and the Benelux playing a key role in breaking new UK talent, North America—the UK's single biggest music export territory in 2019; Asia—where new markets such as Indonesia and the Philippines are fast emerging alongside China and India; South America—particularly Brazil; and Australasia—a long-standing export market for UK acts.

New markets are also beginning to open across Africa and the Middle East. For example, in South Africa, British music is not keeping pace with international growth, possibly due to the very strong domestic or local language repertoire. "These are markets where UK artists and labels need to work hard to maximise the benefit of a rising market", according to the BPI.

All the countries referenced above have seen major services export growth over the past few years across several creative sectors, but these were the four countries that saw the largest boost:

- creative industries services exports to the US grew from £5.7 billion in 2015 to £12.2 billion in 2019 and this could grow even further provided that any agreement the UK Government enters into with the USA delivers stronger protection for the IP (especially music) it creates.
- creative industries services exports to Germany grew from £1.5 billion in 2015 to £2.4 billion in 2019 and more growth is expected as demand for streaming services grows in the country.
- creative industries services exports to the Netherlands grew from £1.2 billion in 2015 to £1.8 billion in 2019. UK acts claim their largest market share in this country, which is also regarded as a healthy starting point for touring and public appearances and is expected to continue to play this role going forward.
- creative industries services exports to France grew from £1.3 billion in 2015 to £1.9 billion in 2019 and its geographical proximity makes it a good candidate for retaining a leadership position across UK export markets.

As highlighted by the CBI (Confederation of British Industry), "the UK continues to stand out with its transparency around the way business gets conducted, the lack of corruption and limited bureaucracy—providing great certainty for foreign investors making decisions." Overall, the UK's services sector (including the creative industries) is seen as a real competitive advantage and should be considered as such in terms of the Brexit outcomes, according to the CBI.

Despite this, Deloitte reports that "the UK lags behind other European countries on tax reliefs, and there is more that could be done to incentivise foreign investment." A great success story is how the film and high-end TV tax reliefs have been highly effective in driving inward investment in all parts of

[18] BPI, "All Around the World: the Global Opportunity for British Music", 18 February 2021.

the UK. Similarly, R&D tax credits could also play a significant role in driving inward investment into the UK. Research by the consultancy OMB for DCMS suggested that 55% of all creative industries firms conducted R&D in the last year.[19] The impact of tax policy decisions on the UK's attractiveness to global businesses should therefore remain top of mind for Government, according to Deloitte.[20]

There is very little data and essentially no research on the determinants of incoming and outgoing **foreign direct investment** (FDI) in the creative industries, either at the macro or the micro level.[21] However, the economic literature suggests that a large portion of FDI is horizontal, i.e. companies invest in foreign production facilities so that they can serve customers in the foreign market.[22] Therefore, it is likely that trade agreements and FDI flows are interlinked and as the UK finalises its trade relationships post-Brexit, there is going to be a lot of readjustment between trade and FDI.

At the same time, major **threats** to creative industries exports appear to come not only from Brexit, as previously discussed in the relevant section, but also from competitive pressure from other markets that are experiencing important growth in domestic creativity. Examples of this include recorded music (K-pop and J-pop in Korea and Japan, respectively, and Latin American music) and podcast production (with the US consolidating its leading role in the global landscape). Another threat in the digital space is IP dilution, stemming from less stringent IP protection frameworks in other countries; for example, in the US, online streaming providers can sometimes invoke safe harbour provisions to avoid liability for copyright infringements.

Another relevant threat, particularly for Northern Ireland creative businesses, relates to the Irish border. For these companies, the greatest trading potential is with the Republic, and many are reporting to be struggling to unravel what the post-Brexit era is going to look like. Despite this anecdotal evidence, post-Brexit trade between the Irish Republic and Northern Ireland boomed during the first few months of 2021 (Northern Ireland imports from the Republic grew by 30% and its exports to the Republic grew by 61% between March 2020 and March 2021). This is related with the fact that, under the EU-UK deal, Northern Ireland is to maintain regulatory alignment with the EU (essentially creating a customs border in the Irish Sea) to preserve an open border with the Republic of Ireland.

However, some experts argue these post-Brexit arrangements for the region are untenable, as they pose challenges for Northern Ireland's constitutional status as part of the UK. Indeed, the end of the Brexit transition period has seen some difficulties in trade between Northern Ireland and the rest of the UK, which in turn could enhance the sense of unionist disenfranchisement, especially if Northern Ireland is drawn closer to the Republic of Ireland's economic orbit in the aftermath of Brexit. In conclusion, the post-Brexit future of Northern Ireland remains unclear and trade relationships with either the Republic or Great Britain (or both) are likely to be affected by such uncertainties.

[19] OMB Research for DCMS, "R&D in Creative Industries Survey – 2020".

[20] Deloitte, "Power Up: UK inward investment | Key drivers of foreign investment and its value to the UK economy", 2019.

[21] Creative Industries Policy & Evidence Centre, "How internationally competitive are the creative industries?", 25 March 2019.

[22] Helpman, Elhanan, Marc J. Melitz, and Stephen R. Yeaple. 2004. "Export Versus FDI with Heterogeneous Firms." American Economic Review, 94 (1): 300-316.

3. UK CREATIVE INDUSTRIES OUTLOOK

Our economic footprint analysis provides a static viewpoint, a picture of the impact of the creative industries at one point in time. To understand the industry from a more dynamic perspective, we analysed the outlook for the sector, drawing on the Oxford Economics Global Economic Model.[23]

Covid-19 significantly impacted the UK creative industries in 2020. Lockdowns, social distancing restrictions, and supply chain disruptions affected their ability to operate, with many pausing or curbing their operations, particularly in the events sector. In this section, we present our projections for creative industries' GVA and employment over the period 2020-25.

> The government should enhance its efforts to support UK music exports by extending the successful Music Export Growth Scheme
> **BPI**

3.1 THE BIG PICTURE

3.1.1 Creative industries' GVA

Creative industries' GVA is expected to broadly follow the growth path of UK-wide GVA during 2020-22, but we project faster growth in 2023-25 under our baseline scenario (Fig. 10). We project a 2020 trough at £104.1 billion (estimated using the latest DCMS GVA statistics out to March 2021), and a relatively fast recovery reaching £127.2 billion in 2025 (in 2019 prices). Over the entire recovery period (2021-25), the industry is expected to grow 20% faster than the UK-wide economy. This implies that the creative industries are projected to grow from representing 5.9% of UK GVA in 2019 to representing 6.1% in 2025.

The 2020 data point is less dramatic than previously anticipated in our July 2020 study, mainly because of fundamental methodological differences. Our early estimates were based on responses to the Creative Industries Federation's survey (whose sample was potentially skewed towards the hardest-hit companies/ workers), while the latest forecast is based on Oxford Economics Global Economic Model. In addition, initiatives such as the £1.57 billion Culture Recovery Fund have protected the sector in 2020, supporting performing arts venues, heritage sites, independent cinemas, music venues, museums, and cultural organisations, and partly mitigating the impact of the lockdowns.

While our previous study projected a £29 billion drop in GVA from £115.9 billion between 2019 and 2020, our revised estimates expect a £12 billion drop to £104.1 billion (in 2019 prices). Both estimates are however very far from our pre-pandemic projections, which showed creative industries GVA would have reached £122 billion by the end of 2020 if the pandemic had not materialised.[24]

[23] Oxford Economics' Global Economic Model provides a rigorous and consistent structure for forecasting and testing scenarios. A globally integrated economic model covering 85 countries, it forms the foundation of all of our country, industry, and city forecasts.

[24] In our 2020 study "The projected economic impact of Covid-19 on the creative industries", we estimated that creative industries GVA would have reached £122 billion by the end of 2020 if the pandemic had not materialised.

Relaxation of Covid-19 restrictions are expected to drive a strong rebound in creative and UK-wide GVA starting from 2021. However, sectors dependent on live audiences, as well as museums and galleries, are likely to see lower attendance (at least initially) due to remaining access restrictions, regulations on social distancing, and changes in consumer behaviour.

The latest GDP data release (covering the month of April 2021) saw a strong increase as the economy began to reopen. Retail sales surged, following the reopening of non-essential shops in the middle of the month. While economic activity is recovering strongly, there is still plenty of scope for improvement in social consumption sectors such as hospitality.

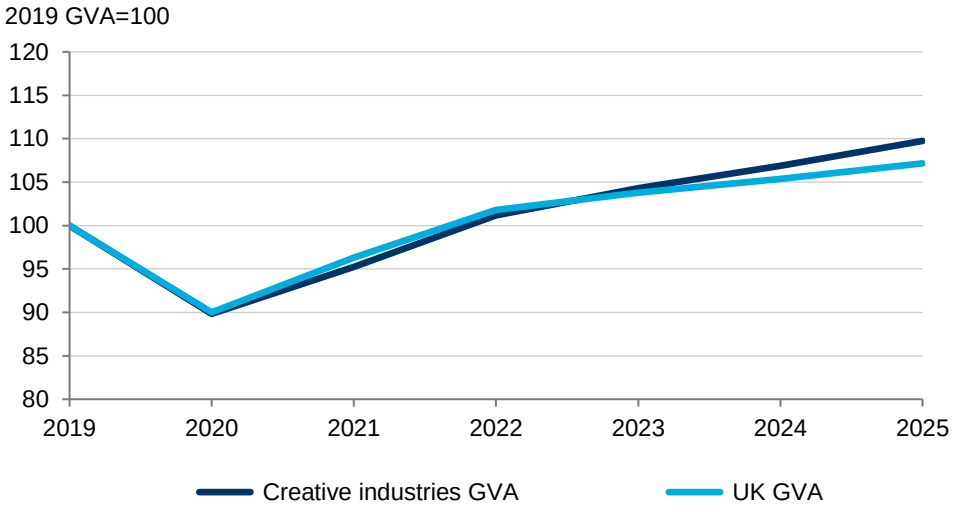
Building on this momentum, we expect May should deliver another chunky increase in GDP, as the impact of reopening indoor hospitality and entertainment venues is seen. On the other hand, the emergence of the delta variant has caused a sharp rise in Covid-19 infections in recent weeks and the lifting of remaining restrictions was delayed. Provided restrictions are not reimposed on non-essential retail, hospitality and entertainment venues, and that any delay to step four of the roadmap is relatively brief, then we believe it is unlikely to have a material impact on our forecast for 2021 GDP growth.

Despite this relative short-term optimism, the current crisis is likely to have long-lasting effects on the creative industries, as investigated further in section 3.2. According to the OECD, “the combination of investment and demand shocks, as well as an anticipated reduction of public and private funding, may cause the disappearance or significant reduction in activity of otherwise viable and valuable firms that support the sector. The impoverishment and downsizing of the cultural and creative sectors would have a negative impact on cities and regions not only in terms of direct economic and social impact but also in terms of well-being, the vibrancy of cities and communities, and cultural diversity.” [25]

While the forecast for the 2021-25 period was outside the scope of the previous study, it is likely that the sector would have grown well beyond £127.2 billion by 2025 in a scenario without the pandemic.

[25] OECD, "Culture shock: COVID-19 and the cultural and creative sectors", *OECD Policy Responses to Coronavirus (COVID-19)*, 7 September 2020.

Fig. 10. GVA projections, creative industries vs UK economy



Source: Oxford Economics

3.1.2 Creative industries' employment

The coronavirus pandemic has also exposed the inherent precarity of the **creative labour market**. First, the crisis may have resulted in a loss of skills of those creative professionals who had to abandon their creative activities and seek other jobs to make a living. For instance, according to a survey by the Musicians' Union, 34% of musicians "are considering abandoning the industry completely, because of the financial difficulties they face during the pandemic, as performance opportunities are severely curtailed".[26] Similarly, a survey of cultural sector workers launched at the start of the pandemic by Arts Council England suggests that among those who were self-employed it was quite typical to be working in other sectors as well as culture. Some respondents reported considering going full-time on their non-cultural occupation due to the pandemic.[27]

> There's a great lack of clarity [around Brexit], which combined with the risk of charges, are making it very difficult to contribute to the export market
> **Crafts Council**

In addition, the slowdown in international hiring exacerbated existing skills shortages. To give an example, in 2019, 76% of UK gaming companies reported difficulties in finding qualified staff.[28] Anecdotal evidence provided by the Crafts Council also suggests that some non-UK creative workers (particularly those born in countries not allowing for dual nationalities) are seriously considering leaving the country altogether, a pattern in line with several ONS statistics on whole economy employment.

In light of all these factors, we expect creative industries employment will decline to 2.0 million in 2020-21, although in the medium term it is expected to grow to some 2.2 million by 2025 (Fig. 11). As with GVA, in the case of employment, our previous

[26] The Guardian, "Third of British musicians may quit industry amid pandemic", 22 September 2020.
[27] This study is not publicly available.
[28] EY, "Rebuilding Europe – The cultural and creative economy before and after the COVID-19 crisis", January 2021.

estimates were a lot more pessimistic than our present estimates.[29] As discussed, this could be down to methodological changes and mitigating effects of the Culture Recovery Fund.

Our current short-term outlook is informed by a range of secondary data sources. First, the UK-wide unemployment rate continued to fall in the February-April 2021 estimate reaching 4.7%, a steady decline from the 5.1% recorded in October-December 2020. Secondly, the inducement to employers to retain staff during lockdown offered by the Coronavirus Job Retention Scheme (CJRS) likely played a reduced role in recent months—as of 30 April, provisional data showed 3.44 million jobs furloughed, down from 4.32 million at the end of March. Thirdly, HMRC estimates that in May 2021 197,000 more people were in payrolled employment when compared with April 2021. Finally, ONS numbers showed a strong increase in job vacancies in the same month, aided by the prospect of the economy reopening.

All this considered, we expect the lifting of restrictions, combined with the crutch provided by the furlough scheme (which comes to an end at the close of September), should keep a lid on unemployment in the near-term. However, the impact of the pandemic is likely to permanently impair demand in some sectors. For example, if some of the transition to working from home becomes permanent, it will mean permanently reduced demand for local consumer services in business districts, making a rise in joblessness more likely. We currently forecast peak unemployment later in 2021, and a rebound starting in 2022 for the UK labour market.

Creative industries employment is projected to slightly underperform UK-wide employment in 2020-21, but we forecast it will catch up and grow at a more sustained pace than the UK as a whole during 2022-25 under our baseline scenario (Fig. 11). Over the recovery period (2021-25), creative industries employment is projected to grow almost two times as fast as UK-wide employment. This implies that the creative industries are projected to grow from representing 6.4% of UK employment in 2019 to representing 6.5% in 2025.This is however still well below pre-pandemic growth projections for the sector.[30]

> By investing through the Culture Recovery Fund, the Government is helping to protect the cultural sector, ensuring that it can bounce back more quickly and play a vital role in the national recovery as we emerge from this crisis.
> **Arts Council England**

The reason for this short-term underperformance is to be found in the workforce composition of the sector. The UK creative industries rely heavily on freelancers, self-employed people, and micro-enterprises workers, who, even in normal times, have more precarious forms of work contracts than standard employment. The pandemic has further aggravated this precariousness, with several studies finding that younger workers, those on low incomes, and the self-employed were more

[29] Analysis of survey data suggested a potential employment drop of over 400,000 units, while our latest projections expect losses of around 71,000 jobs.
[30] As previously discussed, the forecast for the 2021-25 period was outside the scope of our 2020 previous study. However, it is likely that the sector would have grown well beyond 2.2 million jobs by 2025 in a scenario without the pandemic.

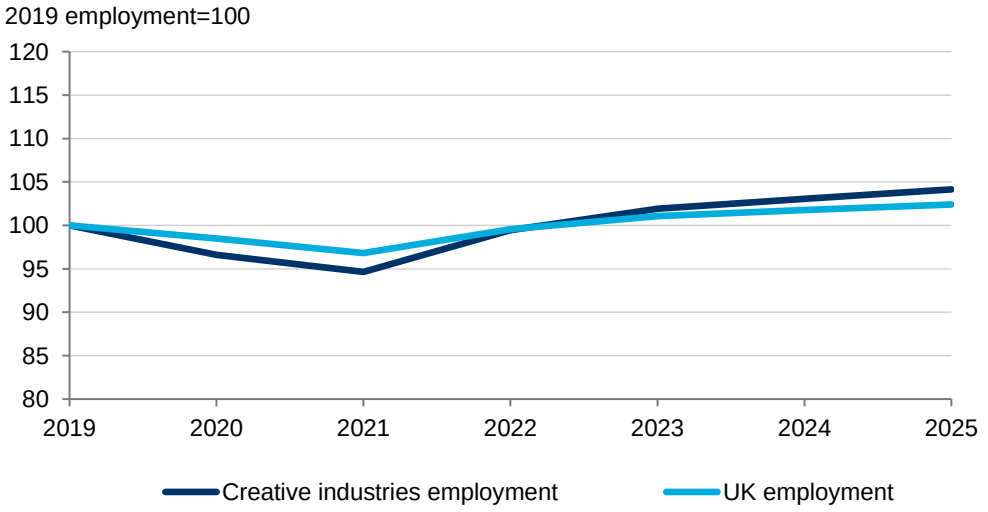
likely to have lost their job or experienced a drop in economic activity during the lockdown.[31]

Some of these workers also struggled to benefit from the government's Self-Employment Income Support Scheme, which in any case compensates only a fraction of the pre-pandemic income. Evidence of this phenomenon was found in both the surveys by the Creative Industries Federation and Arts Council England, in particular due to the status of multiple job holder of many freelancers in the culture sector.

In addition to UK-wide initiatives, the devolved administrations have also allocated additional funding to these workers. For example, in February 2021, a further £17.5 million of emergency coronavirus funding has been allocated by the Scottish Government to support creative freelancers and the events sector. Similarly, freelancers working in the cultural and creative sectors in Wales are eligible to apply for funding from a £7 million targeted fund.

In 2019, one third of the creative industries workforce was made up of self-employed workers, a ratio that is expected to decline to 30% in 2021 (600,000 jobs), and subsequently pick up and reach 32% from 2023 (687,000 jobs). Self-employment in the creative industries is projected to reach 701,000 by 2025, up from 695,000 in 2019. This shows how self-employment is a persistent characteristic of the creative labour market and further stresses the importance of supporting these jobs in these challenging times.

Fig. 11. Employment projections, creative industries vs UK economy



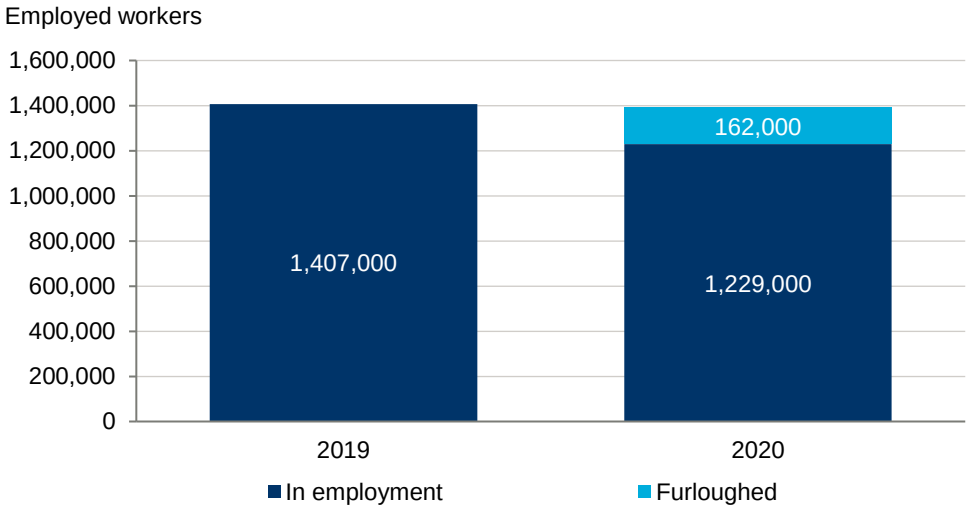
Source: Oxford Economics

As far as creative businesses' employees are concerned, as of December 2020, we estimate 162,000 were on furlough (Fig. 12). This is 12% of the total industry workforce. Another 16,000 workers who were employed in the creative sector in

[31] See for example Blundell R, Costa Dias M, Joyce R, Xu X. COVID-19 and Inequalities, Fiscal Studies, 2020; 10

2019 lost their jobs in 2020 according to our estimates. By 2025, we project nearly 1.5 million will be employed directly in the UK creative industries.

Fig. 12. Creative industries employment, 2019 and 2020[32]



Source: DCMS, Oxford Economics

3.2 OUTLOOK BY CREATIVE SEGMENT

Covid-19 restrictions have not impacted all creative segments equally. Fig. 13 provides evidence of the varying impact the pandemic has had on different creative segments. According to DCMS data for 2020, music, performing, & visual arts were the hardest hit by the pandemic in light of the protracted period of restrictions on live performances and we project they will not return to pre-pandemic levels until after 2025. Museums, galleries, and libraries were the second hardest hit segment. These two sectors are projected to grow 2-3 times as fast as the UK-wide economy in 2021 and 2022, but this will still not be sufficient to take them back to their pre-pandemic levels.

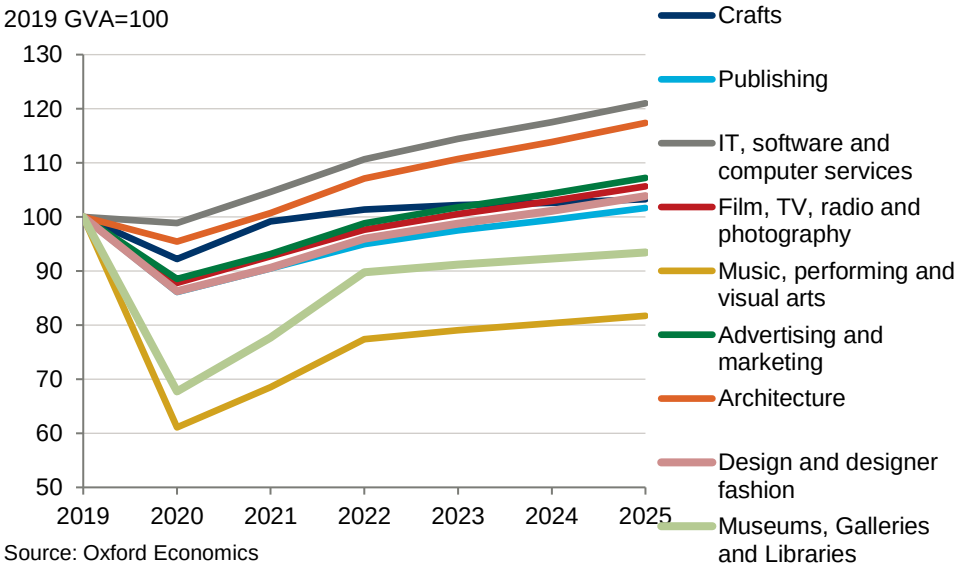
The IT & software sector (which includes video games), on the other hand, was the least impacted by the pandemic; according to UKIE, the UK market for video games reached a record £7 billion in 2020, as "homebound consumers turned to games for entertainment and as a way to virtually connect with friends and families." The sector is also projected to grow more rapidly than any other creative sector over the medium term. We expect that during the 2023-25 period, the sector will grow twice as fast as the UK economy, driving the overall growth prospects for the entire creative sector.

[32] The data for "in employment" workers are estimated as averages over the year, following the methodology adopted by the ONS Annual population survey (APS), while the furloughed share is estimated using December 2020 as a proxy for the year.

The architecture sector is also projected to follow a similar trend, as working from home becomes the “new normal” for many. Some 15% of the participants in research commissioned by the Royal Institute of British Architects (RIBA) reported wanting to improve the design of their home to help them be more productive, and 11% believe making changes to the design of their home would help them to live more harmoniously with others in the house. In light of this, we project the sector will grow twice as fast as the UK-wide economy in 2023-25.

Advertising & marketing and film & TV production are also expected to fully recover by 2023. Ad spend has already started to pick up in early 2021, after the severe dip in 2020, but it is likely to remain below-pre-pandemic levels for the immediate future. The Film and TV Production Restart Scheme, now extended until December 2021, will also continue to provide Covid-19 insurance for film and TV productions and should help the sector pick up relatively quickly as the economy reopens. During 2023-25, however, we expect the PR, communication, advertising & marketing, motion picture, video and television sectors to grow twice as fast as the UK economy.

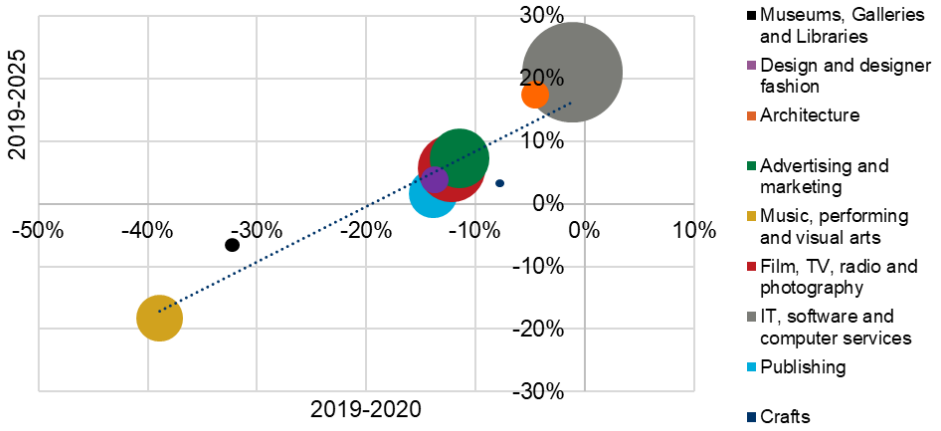
Fig. 13. Creative industries GVA by segment, 2019-25



Source: Oxford Economics

A key question facing policymakers is the extent of persistent damage that may result from the pandemic. Our analysis suggests Covid-19 could have a lasting effect over medium-term growth prospects in the creative industries. In other words, segments that experienced greater drops in 2020 (measured in terms of GVA) are projected to grow at a slower pace than those only mildly affected. This is graphically shown by the positive correlation between the 2019-20 and the 2019-25 percentage changes.

Fig. 14. Correlation between 2019-20 and 2019-25 GVA growth rates (bubble size reflects industry size as measured by GVA in 2019)



Source: Oxford Economics

3.3 OUTLOOK BY REGION

A similar story can be told for UK regions and communities up and down the country. The nations and regions that were hardest hit by the pandemic, such as the North East and Wales, are projected to lag behind in the medium term too.

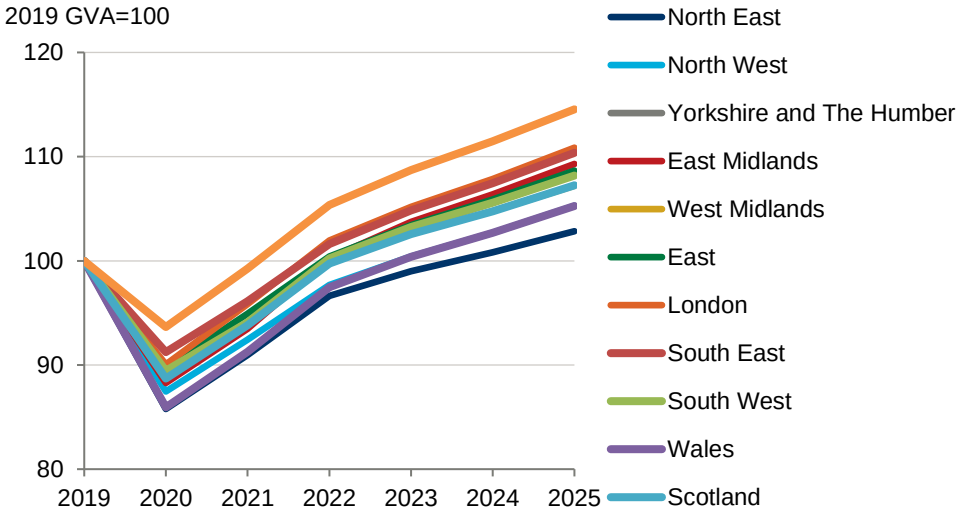
Creative industries' growth in the North East is the weakest of any region over the 2020-25 period, further depressed by the likely decline in its population expected for this period. This is in turn also associated with increasing scarcity of highly qualified individuals, which makes the challenges facing the creative industries in the region all the greater. The region also continues to struggle to move away from a high dependency on both manufacturing and the public sector, and it has a relatively weak base in terms of small entrepreneurial businesses. Wales is also one of the most manufacturing dependent parts of the UK and also has a sizeable trade dependence. These features put Wales under stress during the worldwide pandemic and are expected to drive relatively weak output growth over our forecast period.[33]

On the other hand, Northern Ireland seems to have fared relatively better during the pandemic and this is reflected in a stronger medium-term growth outlook. This finding is consistent with results by the University of Strathclyde Fraser of Allander Institute, whose estimates suggest that (after a more severe initial pandemic impact on the Northern Ireland economy in March and April 2020) the region experienced a faster recovery in comparison to the UK average.[34] As discussed previously in this report, post-Brexit trade between the Irish Republic and Northern Ireland boomed during the first few months of 2021 thanks to the fact that, under

[33] ICAEW and Oxford Economics, "Coronavirus Economic Outlook: differences between regions", 22 May 2020.
[34] Northern Ireland Assembly, "Overview of COVID-19 funding in NI and the economic implications: an update", *Paper 81/20*, 16 December 2020.

the EU-UK deal, Northern Ireland is to maintain an open border with the Republic of Ireland.

Fig. 15. Creative industries GVA by region, 2019-25



Source: Oxford Economics

POLICY SCENARIO AND RECOMMENDATIONS

Before the pandemic, UK creative industries were considered a motor of growth in local economies, unlocking opportunities, investment, jobs, and higher productivity right across the country. To maximise the creative industries' ability to contribute toward the UK's post-pandemic social, cultural, and economic regeneration, government investment and support is needed and many domestic and international organisations have made a strong case for ambitious government investment in the aftermath of the pandemic.

For example, short-term policy recommendations by the OECD include "ensuring that public support for Covid-19 relief does not exclude creative firms and workers due to their non-traditional business models and employment contracts, and that such support reaches artists and creative professionals; investing in cultural production to help the sector rebound after the crisis; and considering tax incentives to promote investments in the sector."

The European Parliament also stressed that "reinforcing the cultural and creative sectors requires substantial public commitment and investment." For example, a European Commission research finds that these industries usually experience higher barriers to access finance and government subsidies play a particularly important role in their financing structure. In light of this, programmes such as *Invest EU* recognise the creative industries as an investment target, offering debt finance and equity instruments for the sector. In addition, the European Parliament called for a more extensive use of match funding in the creative sector, as an instrument with a large leverage effect on public investments.

Similarly, as noted by Canada Council for the Arts, "public funders will have a vital role to play in shaping the future of the arts after the pandemic." Among the Council's priorities are "increasing

investments in Indigenous arts and in the international presence of Canadian artists, boosting funding to first-time recipients, and supporting the adoption of digital technologies." In addition, the Canada Council is also increasingly looking to "convene partners from government and the private sector, and to build bridges between the creative industries and other key sectors."

The Creative Industries Policy & Evidence Centre also highlighted that there is "a huge risk that, as other sectors begin to recover from the pandemic, some parts of the creative industries will be left behind." For example, 27% of creative workers under the age of 25 left creative occupations after lockdown, compared with 14% of workers aged 25 and over. Moreover, industry representatives noted that public investment provided to date has not always reached creative workers—the actors, dancers, stage management, and many other highly skilled workers in the sector—putting the diversity and success of the wider creative industries at risk. For instance, in Scotland, Creative Industries Policy & Evidence Centre's research found that the government support schemes had not met the needs of the creative freelancers in the sample.

"There is also a significant risk that the creative industries will be re-concentrated in South East England and London, as was the case following the global financial crisis in 2008, which would reverse the trend of new creative clusters emerging in places like South Wales and North East England, and put breaks on the Government's levelling-up agenda", reported the Creative Industries Policy & Evidence Centre.

According to the Creative UK Group, three imperative areas are:

- **Investment in creative skills,** which could include allowances for young people looking to become creative freelancers or start up their own business; the extension of the government's "Opportunity Guarantee" to ensure everyone has access to creative education[35]; and the expansion of the Creative Careers Programme, targeting young people and places most impacted by the pandemic across the UK.
- **Investment in creative innovation**, which could include the extension of programmes such as the Creative Industries Fund, Creative Industries Clusters and Audience of the Future, the expansion of R&D tax reliefs to include the arts; the introduction of an "Innovation Enterprise Allowance" (for entrepreneurs out of work) and an "Innovation Employment Scheme" (to increase UK businesses' capacity).
- **Investment in creative places**, which could include the establishment of a Creative Industries Investment Bank to act as an investor in a range of creative businesses looking to grow, the upscaling of the Creative Industries Clusters and Creative Scale-Up Programmes, and the empowerment of local and national leaders to drive cultural recovery, regeneration and growth.

In this box, we provide a high-level scenario to demonstrate the impact of increased investment on the sector's growth and contributory potential. We focus on two kinds of investment: intangible investment (intellectual property including, software, artistic originals, R&D, design, organisational capital, training, and branding) and capital investment projects (including building or renovating libraries and museums

[35] For example, the Opportunity Guarantee in Northern Ireland features work experience placements of 13 weeks, a guaranteed interview for a job or apprenticeship when the placement ends, which can lead to a job offer after the placement ends. Calls for wider adoption of such initiatives have been raised from stakeholders across industry sectors and charities across the country, as exemplified in a letter to the Sunday Times available at: https://www.impetus.org.uk/opportunity-guarantee-call-to-prime-minister

across the country). We refer to the sum of these two components as the total investment in the creative industries. We start by creating a baseline forecast for total investment that is consistent with our projections for industry GVA presented in Chapter 3. We then simulate the impact of a more generous investment profile in the creative industries (the upside policy scenario) on the economic footprint of the creative industries, as measured by its contribution to UK GDP and employment.

Specifically, our model works as follows. First, we used official statistics to estimate the value of the creative industries capital stock (tangible and intangible) up to the end of 2020. This is the accumulated value of assets operated by the creative sector, allowing for past investment flows and depreciation. To generate our baseline forecast to 2025, we assumed that the capital to output ratio will remain stable in the medium term. Under our upside policy scenario, we assumed a given percentage uplift in baseline investment consistent with increased government and private support. Lastly, we used this uplifted investment to estimate the associated increase in creative industries GVA and employment in 2025.

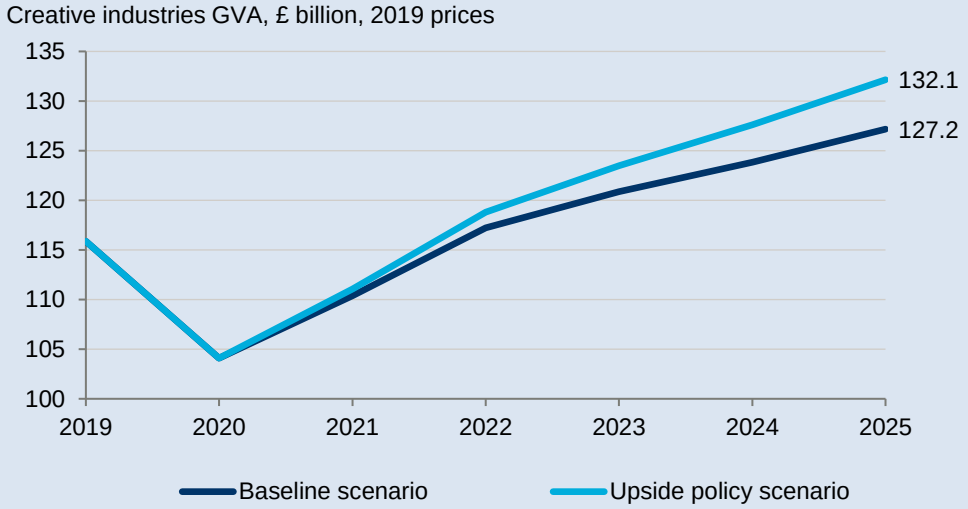
As of 2018, creative industries invested a total of £27.2 billion in intangible and physical assets, including both private and public investment. We estimate that this investment grew to £29.3 billion in 2019 and then dropped to £26.3 billion in 2020 due to the pandemic. Going forward, under our base case scenario, we expect this investment will reach £32.1 billion annually by 2025 (in 2019 prices), a 10% real term increase from 2019 levels. As explained, this figure is consistent with a creative industries GVA contribution of £127.2 billion and 2.2 million jobs in that same year, which is our baseline forecast. In other words, we expect that in 2025 creative industries investment will amount to £32.1 billion and this will enable a GVA contribution of £127.2 billion and 2.2 million jobs in the sector.

Under a more ambitious scenario, which we call the upside policy scenario, creative industries' capital expenditure and intangible investment is assumed to reach £34.9 billion in 2025 (in 2019 prices), a 20% real term increase from 2019 levels, and £2.8 billion more than in the baseline scenario. In this scenario, our modelling implies that the UK creative industries direct contribution to GDP would rise to £132.1 billion by 2025 with industry employment of 2.3 million. In other words, by investing an extra £2.8 billion in 2025, an additional £5.0 billion GVA contribution could be directly generated by the industries in that year and 86,000 jobs could be added in these sectors alone in the same period.

Under this scenario, over the entire recovery period (2021-25), the industry is expected to grow 36% faster than the UK-wide economy (4.9% p.a. on average vs 3.6% p.a. on average). To put this growth in context, the creative industries grew by an average of 4.1% p.a. between 2010 and 2019. This implies that under this scenario the creative industries are projected to grow from representing 5.9% of UK GVA in 2019 to representing 6.3% in 2025.

In employment terms, over 2021-25, creative industries are projected to grow nearly three times (2.7) as fast as UK-wide employment (2.3% p.a. vs 0.8% p.a.). To put this growth in context, the creative industries grew by an average of 2.4% p.a. over the last three years before the pandemic (2016-19). This implies that under the upside scenario the creative industries are projected to grow from representing 6.4% of UK employment in 2019 to representing 6.8% in 2025.

Fig. 16. Creative industries GVA, baseline vs upside policy scenario



Source: Oxford Economics

While our analysis does not differentiate the impact of this additional investment by region or creative segment, we believe the nine creative clusters would be major beneficiaries, both directly and indirectly.[36] By protecting local cultural infrastructure, creative clusters are able to attract greater direct investment in the long term, thereby empowering creative individuals, organisations, and places throughout the UK. It is therefore likely that a relatively large portion of the additional investment under the upside policy scenario would be directed to these regions. As noted by UK Research and Innovation (UKRI), the creative industries clusters programme can "play a pivotal role in unlocking the innovation and economic potential of regions".

Northern Ireland's Future Screens is an example of these efforts. The programme aims to deliver nation-wide expert technical skills, opportunity and growth across film and broadcast, animation, games, and immersive technologies. The UK Government is also working in collaboration with the Welsh Government on the Yr Egin project (Creative Digital Cluster), a purpose-built facility with auditorium, professional post-production facilities, and spaces for networking and community activities, which has already created 100 jobs and attracted 17 private sector companies to the site.

Other successful examples include the London Creative Enterprise Zones, which have helped local areas with accessing inward investment and enabling new and affordable workspaces for creatives. In addition, analysis by the Creative Industries Policy & Evidence Centre also suggests that investment in programmes such as *Creative Scale-Up* to support microclusters may be useful both in terms of the Government's levelling-up agenda, and the creative industries' recovery from Covid-19.

As part of this study, we have sought the views of a number of sector experts on how best the government could support their industries in practice. This is not meant to be a comprehensive list of policy interventions, but rather a selection of initiatives suggested by the sample of experts we consulted.

- Many creative segments call for the introduction of (or the expansion of existing) **tax relief schemes**, which have previously proven their worth in sectors like film production. In

particular, both the audio and recorded music production sectors project that such policy interventions could not only stimulate major inward investments and provide stimulus for the sectors themselves, but also produce net benefits for the HM Treasury and the economy more widely. The Crafts Council calls for tax credits on shipping costs and VAT reductions/ suspensions for attendance to trade fairs as helpful tools to ease the struggle faced by many creators as they navigate the post-Brexit trade world.

- Public funding for ad hoc **skill development and training** is needed more than ever, especially at a time when it is becoming increasingly difficult to "import" talent. In order to fully support the boom in audio production, AudioUK stresses the importance of expanding government skills funding to support training programmes for audio professionals. Currently much of the funding is only available to screen-based industries, as that provided through ScreenSkills for example. This is partly due to the audiovisual-only remit of many of the funding bodies involved. Industry experts also called for stopping the proposed cut to arts education courses, explaining that having the opportunity to experience culture is incredibly beneficial for mental health, especially at a young age. The proposal devalues and deprioritises creative education, starting in schools through to higher education. The increasing emphasis on courses that offer strong economic returns, without recognising wider value of creativity and culture, needs to be reversed, writes the Creative Industries Policy & Evidence Centre.
- Supporting creative companies to **boost their exports** could be a powerful recovery tool, as exemplified by successful programmes such as the Music Export Growth Scheme (MEGS), funded by the Department for International Trade (DIT) and run by the BPI. Since launching in 2014, hundreds of independent artists have been backed in their overseas touring and promotion, boosting exports by £46.5 million—a return of £12 for every pound invested. In addition, the pandemic has shown the importance of cultivating digital channels as an innovative tool to boost exports, and government support in the digital space could provide further assistance to accelerate foreign sales. This has been particularly relevant in the visual arts sector during the pandemic, with trial-and-return mechanisms creating incentives to purchase, for example, sculptures with the option of returning the product if not fully satisfied.
- Many audience-based sectors call for the **relaxation of inbound tourism restrictions** as soon as it is safe to do so. As explained by the Arts Council England, some theatres and museums depend heavily on incoming visitors and therefore eventual border re-opening will provide a much-needed relief for a sector that was so badly hit by Covid-19. It will also be important to minimise the impact of Brexit on incoming tourism to support the sector.

An important perspective shared by many of the experts we consulted is that what the creative industries need now is a range of investment measures to drive stronger growth going forward, as opposed to further emergency relief packages to fill a short-term financial gap. The only slight exception to this could be a government-sponsored insurance scheme for festivals, which would cover coronavirus-related cancellations (private insurers do not presently cover such instances). In the absence of this, industry experts suggest festivals face huge financial losses and risk bankruptcy in the event of a last-minute cancellation.

[36] Creative Industries Cluster Programme https://creativeindustriesclusters.com/

4. CONCLUSION

> The US is already very dominant in podcasting so to counter that and grow our own industry we need to rebalance that
> **AudioUK**

The UK has one of the largest creative industries sectors in the world. UK creativity has a strong reputation for originality and its products attract major inward investments. The creative industries also play a sizeable and important role in supporting the UK's competitive advantage and driving growth and innovation.

However, prolonged restrictions on public life and the closure of many cultural activities during the Covid-19 pandemic affected the UK cultural ecosystem profoundly. The pandemic hit the industry at a time when the country was already facing Brexit uncertainties and after a decade-long period of austerity, which involved severe cuts of local cultural services. The combination of these factors made the industry especially vulnerable to the recent crisis.

This report highlights the economic contribution that the industry made in the pre-pandemic period, supporting 2.1 million jobs and a £115.9 billion contribution to GDP directly in 2019, equivalent to 6.4% of total employment and 5.9% of gross value added. Across the direct impact and the industry's supply chains, the UK creative industry supported total employment of 3.5 million and a GDP contribution of £178.0 billion.

This impact could grow further if the industries will be able to tap some of the post-Brexit trade opportunities lying ahead in countries such as the US, Switzerland, Gulf states, and markets that are just beginning to take up digital technology. At the same time, major threats to creative industries growth come from Brexit, but also from competitive pressure from other markets that are experiencing important growth in domestic creativity.

When the pandemic hit in early 2020, all the trade opportunities were put on hold and all the threats were amplified, with the short-term prospects for the industry changing dramatically. Creative industries GVA is estimated to have dropped from £115.9 billion in 2019 to £104.1 billion in 2020 (in 2019 prices) and some 71,000 jobs were lost in that year alone. Under our baseline scenario, we expect that by 2025, the creative industries could directly create 2.2 million jobs and £127.2 billion in GVA (in 2019 prices).

Above and beyond this baseline forecast, we also simulate a scenario to demonstrate the impact of increased investment on the sector's contributory potential. Under this more ambitious scenario, capital expenditure and intangible investment could grow by 20% in real terms from 2019 levels (as opposed to 10% growth in our baseline scenario). In this scenario, we estimate that the UK creative industries direct contribution to GDP could rise to £132.1 billion (in 2019 prices) by 2025, with industry employment of 2.3 million.

In conclusion, this report provides important insights into the creative industries across all UK nations and regions and shows the sector's potential for growth in GVA and jobs. We are hopeful that this research will help to evidence the pivotal role the creative industries could play in fuelling the UK's economy in the post-pandemic world.

METHODOLOGICAL APPENDIX

OUR APPROACH TO ESTIMATING THE ECONOMIC FOOTPRINT OF THE CREATIVE INDUSTRIES

The direct contribution of the creative industries is drawn directly from DCMS data. Only employment is available at the 31 SIC code level for 2019, but not GVA. GVA is available for the nine creative segments. We used Annual Business Survey (ABS) data (from 2018) to convert the nine DCMS sector into the 31 SIC codes for GVA. We then used ABS data to work out the ratio between "Total purchases of goods, materials, and services" and GVA. We then mapped each of the 31 SIC codes to the closest sector in the UK input-output (IO) table.

By doing so, we could first break out the intermediate consumption between domestic and imports. For the domestic share we used the spending pattern provided in the domestic IO table in combination with the ABS, which provides detail about the actual composition of procurement expenditure by 4-digit SIC code.

This spending inevitably included some procurement from businesses belonging to the creative industries. We used ABS turnover data to estimate the size of the 31 creative SIC codes as a share of the broader IO table SIC code. After subtracting these amounts, we used the UK-wide IO model to estimate the supply chain impact for each of the 31 sectors.

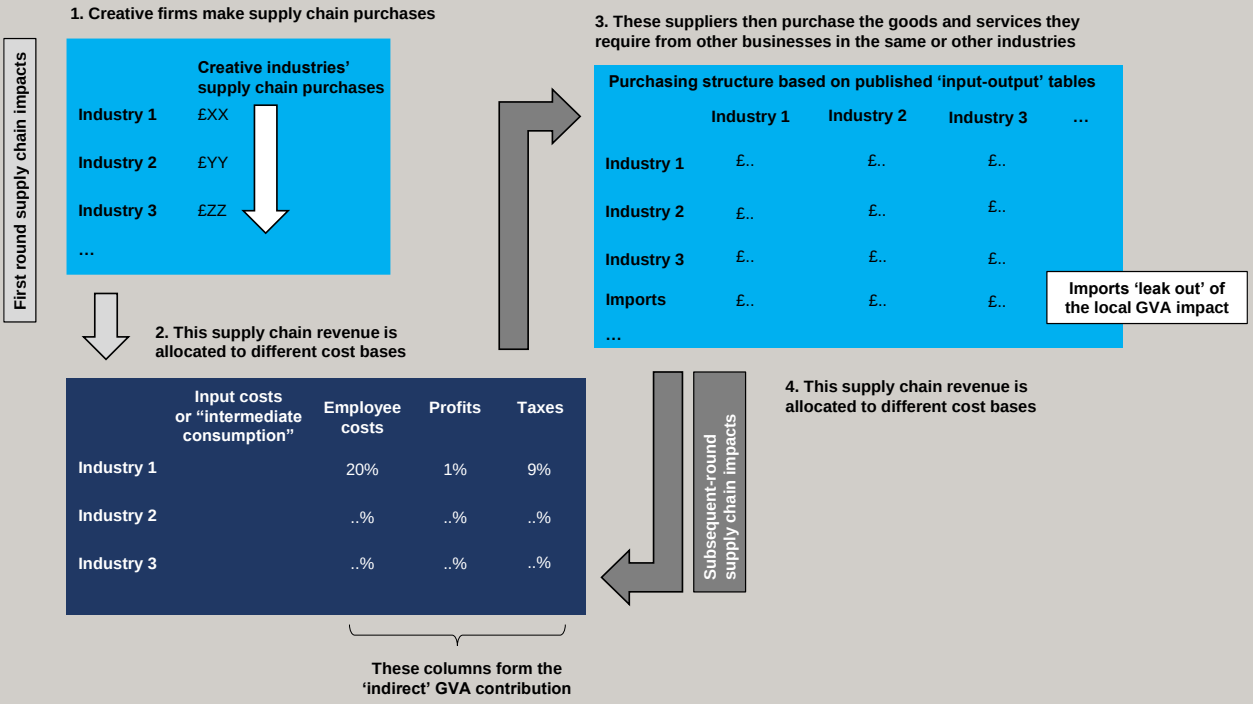
We had no information about the region of the industry's supply chain, and therefore we used data on the location of the direct operations to improve estimates of the location of the supply chain (i.e., firms are more likely to purchase from a local firm).

To estimate the impact of the creative industries' supply chain expenditures on the economy, we inputted the expenditures into a model based on UK IO tables published by the ONS.

The UK input-output tables set out the goods and services that UK industries purchase from one another in order to produce their output (as well as their purchases from abroad). In essence, the tables show who buys what from whom. Using details of these linkages from the input-output tables, Oxford Economics constructed a bespoke UK impact model to trace out the intermediate consumption impacts attributable to the creative industries (this is known as the Leontief manipulation).

Oxford Economics' impact model quantifies all rounds of subsequent purchases along the supply chain. These transactions are translated into GDP contributions using UK-specific ratios of GVA to gross output, sourced from the UK input-output table. Once we had obtained results for output and GVA, we estimated employment using productivity estimates.

Fig. 17. A stylised Input-Output table structure



OUR APPROACH TO FORECASTING THE SIZE OF THE CREATIVE INDUSTRIES

Baseline forecast

Macroeconomic data and forecasts (i.e., GVA and employment) for the UK as a whole are the starting point for the analysis of the performance and outlook for individual industries. This is developed through an input-output modelling framework, which shows how each industry reacts to changes in final demand (such as consumer spending) and intermediate demand from other industries.

Forecasts for gross value added by industry and by region are produced in three stages:

- For 'export industries' (such as IT, software, and computer services), forecasts are produced by a set of equations that take account of the historical relationship between growth in that industry in each region compared with the respective UK-wide average (a 'shift-share' approach). For regions that have an internationally driven business services sector, the equations for business services also incorporate international investment cycles, thereby directly linking the performance of the region to the global economy.
- Equations for public services activity (including cultural education) adopt a similar 'shift-share' structure to the export industries, with the addition of population to reflect the fact that the delivery of front-line public services tends to happen where people live.
- The final group of industries (including performing arts and museums) are those that are predominately supported by local demand from the export industries and public sector, so these are modelled against the performance of these industries. This allows us to incorporate the notion of local multiplier effects (e.g., strong business services will have a positive knock-on effect to the leisure sectors).

Forecasts for workplace-based employment by industry and by region are produced by equations that combine trends in labour productivity with the GVA forecasts.

It should be noted that the DCMS has recently published creative industries employment estimates relative to the period October 2019 to September 2020. The release suggested a slight increase in the number of creative industries jobs between 2019 and 2020, a rather counterintuitive finding. When consulted, the DCMS explained they do not have a clear explanation for this finding yet. They however kindly provided us with possible explanations for this phenomenon:

- the first thing they noted is that the UK adopted various support packages, including the furlough scheme, which has meant that Covid-19 did not (initially at least) lead to a huge spike in unemployment (and, correspondingly, a drop in number of jobs).
- secondly, they believe that an important factor to explain the job increase relates to how the survey they use for the estimates (the ONS Annual Population Survey, or APS) was weighted to provide estimates for the whole population (weighted results are what DCMS publishes). In essence, the APS and its sister survey (the ONS Labour Force Survey, or LFS) make certain assumptions about population growth. These were potentially not applicable during 2020 (when the population may have fallen due to non-UK nationals leaving the country) and using these assumptions has therefore led to the surveys potentially overweighting people (particularly UK nationals with jobs). An additional possibility is that the survey struggled to pick up certain subsamples of the population (e.g. non-UK nationals), having become a telephone-only survey during the pandemic (rather than face-to-face).

Several attempts to look at these issues are being pursued by the ONS using HMRC data, but it is worth noting that the above points are currently just hypotheses and more analysis is needed to get to the bottom of it. ONS currently advise against the use of Labour Force Survey data for estimation of employment levels, as these data require re-weighting to account for population changes, and the effects of changing survey mode. ONS plans to release revised datasets in mid-August 2021, at which point the DCMS will revise the October 2019 – September 2020 DCMS Employment release. Following this recommendation, we decided to re-estimate the 2020 data point using Oxford Economics' models.

OXFORD
ECONOMICS

Global headquarters
Oxford Economics Ltd
Abbey House
121 St Aldates
Oxford, OX1 1HB
UK
Tel: +44 (0)1865 268900

London
4 Millbank
London, SW1P 3JA
UK
Tel: +44 (0)203 910 8000

Frankfurt
Marienstr. 15
60329 Frankfurt am Main
Germany
Tel: +49 69 96 758 658

New York
5 Hanover Square, 8th Floor
New York, NY 10004
USA
Tel: +1 (646) 786 1879

Singapore
6 Battery Road
#38-05
Singapore 049909
Tel: +65 6850 0110

Europe, Middle East and Africa

Oxford
London
Belfast
Dublin
Frankfurt
Paris
Milan
Stockholm
Cape Town
Dubai

Americas

New York
Philadelphia
Boston
Chicago
Los Angeles
Toronto
Mexico City

Asia Pacific

Singapore
Hong Kong
Tokyo
Sydney
Melbourne

Email:
mailbox@oxfordeconomics.com

Website:
www.oxfordeconomics.com

Further contact details:
www.oxfordeconomics.com/
about-us/worldwide-offices