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The Nature of Foreign Direct Investment in the Creative Industries

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1. Introduction

Foreign direct investment (FDI), where an enterprise in one country makes a cross-border investment in another country (OECD, 2008), is a crucial part of the global economy. A large body of empirical evidence highlights its beneficial role for a host economy through productivity, employment or broader development effects (see Bruno and Cipollina (2018) for a review of the literature). Further, firms that are associated with higher levels of FDI have been found to trade more internationally (ONS, 2017; Villar et al., 2020). There is, however, a parallel literature raising concerns about the impact that FDI can have on the host economy, as the boost to innovation and productivity may be offset by the repatriation of profits and crowding out of domestic investment (Reis, 2001), or as it can also be associated with a race-to-the-bottom of regulatory standards (Olney, 2013).

In general, just like trade flows, FDI also is subject to political intervention with countries usually trying to regulate the inflows of FDI into the economy. While restrictions are decreasing over time, their strength still varies greatly across countries and sectors as shown by the latest report by the OECD (2022). The UK, overall, maintains a quite open international outlook but this may not be enough to remain internationally attractive towards healthy and growth enhancing international investment. Indeed, policymakers have recently highlighted the importance of understanding the nature and determinants of this investment for the overall economy (DIT, 2021) and while there is already a body of evidence on UK FDI, most of these studies have predominantly focused on the manufacturing sector and, therefore, they are of diminishing relevance to the current structure of the UK economy. More recent studies have analysed service sector FDI (Jones and Wren, 2016), although this is often at an aggregated level so does not capture the underlying heterogeneity of the industries in this part of the economy.

For the creative industries, in particular, there is an absence of research on FDI, which is despite the increasing share of these industries in the UK economy (Burger, et al., 2021). Given the prevalent intangible nature of assets in the creative industries and their reliance on Intellectual Property Rights, FDI involving creative firms may be substantially different from that in other sectors. Also, it is well known that UK creative firms struggle to access financial support by traditional means and may end up chronically underfunded, which may explain why their growth may plateau at one point (Di Novo et al., 2022). In this direction, FDI can represent both an opportunity and a menace, as it can step into place to support the growth of local creative firms helping them grow or it can instead be motivated by the simple exploitation of the intangibility of creative assets and expatriate their value.

This paper has two main objectives. First, it starts adding to the very limited current evidence base by providing a first overview of the nature of inward foreign direct investment in the UK creative industries. The paper draws upon data from the Orbis Crossborder Investment database to gather information on FDI for a range of characteristics, such as project type (new, expansion, co-locations, and mergers and acquisitions), industry, home country of origin and UK regional location. While the analysis is mainly descriptive, it provides a preliminary unique snapshot on the nature and evolution of foreign direct investment in the UK creative industries. Second, based on this snapshot, the paper raises questions for a policy-relevant future research agenda.

In anticipation of some of the key findings, the UK creative industries seem attractive towards international investors. After a moderate contraction in the year of the Brexit referendum, the number of FDI projects has seen an expansion until 2019 and a drop in 2020, the year when the UK-EU Trade and Cooperation Agreement was signed, but also the year of the start of the pandemic, so that it is not possible here to disentangle the two. Compared to overall FDI, creative FDI tends to prefer Mergers and Acquisitions to new (greenfield) projects as a mode of entry. The vast majority of projects are in 'IT, Software and Computing Services', followed by 'Film, TV, Video, Radio and Photography' and 'Advertising and Marketing'. Interestingly, the United States (US) is the main country of origin for creative FDI and in these sub-sectors in particular. This is different for overall FDI (including also non-creative FDI projects), where the EU represents the main country of origin. However, this is not necessarily surprising, given the dominance of US multinationals in these specific sub-sectors.

Finally, a nuanced picture emerges with respect to the spatial distribution of FDI across the UK regions. While most projects go to London and the South East, in relation to the size of the local economy the picture is more nuanced and shows the great importance of FDI in some sub-sectors and some regions. The collected evidence raises a number of policy relevant questions that are discussed in the conclusions. For the rest of the paper, the next section provides a short, and necessarily brief, overview of the literature on FDI and the creative industries. Section 3 describes the dataset used in the analysis and Section 4 presents the descriptive analysis and extensively reports on the above mentioned evidence. Finally, as mentioned above, Section 5 gives a summary of the conclusions and raises questions for a policy-driven research agenda in the area.

2. FDI and the Creative Industries: A Brief Review of the Literature

The size, growth and subsequent importance of the creative industries to both developed and developing economies is now widely acknowledged (UNCTAD, 2018, Easton and Bakhshi, 2021). For the UK specifically, a growing number of studies has highlighted the nature and impact of the creative industries with respect to a range of issues such as innovation (Mateos-Garcia, 2021), growth (Gutierrez-Posada, et al., 2021) and regional development (Gilmore et al., 2021).

The creative industries increasingly contribute to the international competitiveness of the economy (Fazio, 2021). With respect to the latter, recent papers have started to fill in the gap in the evidence base on international creative trade (Di Novo et al., 2020; Di Novo et al., 2021; Easton, 2021, Tether and Yu, 2022). There is, however, close to an absence of academic research and policy relevant evidence on the role and nature of foreign direct investment in the UK creative industries (Fazio, 2019).

There is a broad and extensive literature relating to the impact of FDI on host economies, in particular on productivity spillovers (see for example, Barrios et al., 2005; Newman et al., 2015), although overall conclusions on these impacts are mixed (Görg and Greenaway, 2004; Baiashvili and Gattini, 2020) and highlight the importance of the absorptive capacity of domestic firms in capturing the spillovers (Sánchez-Sellero et al., 2014). There is also well developed literature on the location determinants of inward investors (for a review of these see, Assunção et al., 2011; Nielsen et al., 2017), with a vast array of factors found to be important for the attraction of foreign investment that includes the size of markets (Jones et al., 2020), access to resources such as human capital (Kottaridi et al., 2019), the role of institutions (Fazio and Talamo, 2008; Mondolo, 2019) and agglomeration economies (Alcácer and Chung, 2014). The UK has often been the subject of studies on FDI (Hill and Munday, 1992; Stone and Peck, 1996; Driffield, 2000; Jones and Wren, 2006; Wren and Jones, 2012), although most of these relate to FDI at an aggregated manufacturing or service sector level and, hence, neglect the heterogeneity that arises within sectors and, therefore, the more nuanced aspects of FDI (Stoian and Filippaios, 2008; Li et al., 2018) in specific industries, such as the creative industries.

The few studies that have explored foreign direct investment in the creative industries have focused on the role of FDI in generating agglomeration economies and the subsequent impact on either productivity (Tao et al., 2019) or spatial concentration (Ko and Mok, 2014). This relates to the emphasis placed in the general FDI literature on agglomeration economies (Jones, 2017) where the inherent characteristics of foreign investors are more likely to result in the generation of agglomeration economies through mechanisms such as skilled labour, inter-firm linkages or knowledge spillovers (Bellak, 2004). It also relates to the general themes in the overall literature of the creative industries where these mechanisms are also emphasised in terms of generating agglomeration economies (Coll-Martínez and Arauzo-Carod, 2017) and the subsequent agglomeration of creative activities (Florida, 2002; Cruz and Teixeira, 2015).

The agglomerated spatial distribution of the creative industries in the UK is well documented with high levels of concentration in London and the South East (Gardiner and Sunley, 2020), most notably in the software and IT sectors (Bernick et al., 2017). Clusters of creative firms are, however, also present across the UK with De Propris et al. (2009) noting the clustering of publishing in the East of England and South West as well as advertising in the North West. Further, Mateos-Garcia et al. (2018) highlight concentration within regions, i.e., at a finer spatial disaggregation, most notably the cities of Manchester, Birmingham, Newcastle, Cardiff and Belfast, although growth in the creative industries is relatively lower outside the main concentration in London, and varies across regions (Gardiner and Sunley, 2020) and industries (Tether, 2019). Notably, Mateos-Garcia and Bakhshi (2016) make a link between domestic agglomerations and international linkages, measured through individuals outside of the UK involved in UK creative communities, with the European Union and the US having the greatest international involvement, but with a mixed pattern across the different UK regional clusters and the overall dominance of London for international engagement.

Further aggregate and disaggregate analysis of internationalisation of the creative industries has recently focused on international trade (Di Novo et al., 2020, and Di Novo, et al 2021, Tether and Yu, 2022). Unfortunately, little is known about the patterns of creative FDI for the UK both as a whole and across its regions and creative sub-sectors. This is despite a rich history of studies examining FDI across the UK regions, although these studies have been relatively highly aggregated at both a spatial and sectoral level (Hill and Munday, 1992; Fallon and Cook, 2010). More recent attempts at disaggregation have focused on the distinction between services and manufacturing FDI (Jones and Wren, 2016) finding different location patterns between these sectors, with notably the location of service FDI being attracted to the major urban areas of the UK suggesting the importance of agglomeration economies. This paper represents a first attempt at bridging the gap in the evidence base on FDI in the creative industries, offering a disaggregate perspective in terms of mode of entry, regional and sub-sectoral distribution.

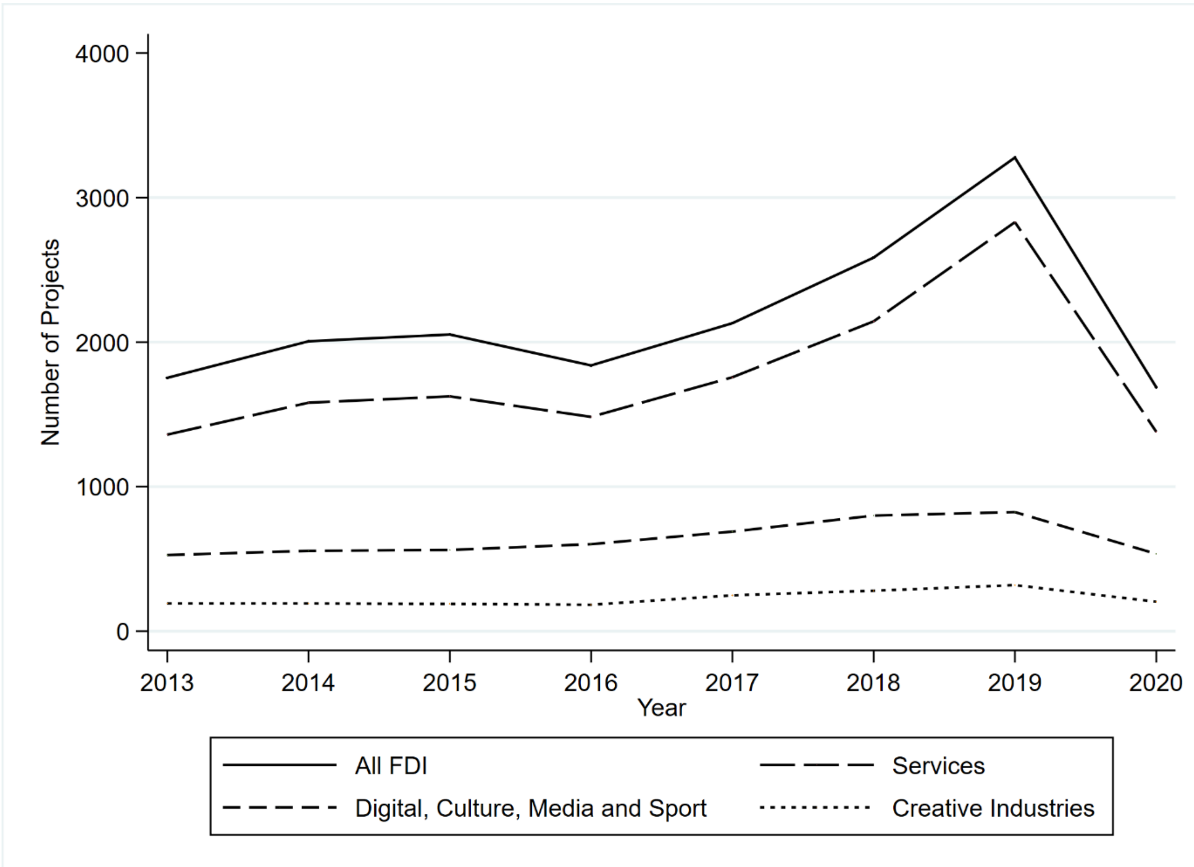
3. FDI and the Creative Industries: A Brief Review of the Literature

To examine the nature of FDI in the creative industries the Bureau van Dijk Orbis Crossborder Investment Database is utilised, which tracks and records information on daily cross-border investment. The database records new, expansion, co-location and re-location projects, but unlike other databases such as fDi Markets and the European Investment Monitor, it also records information on project deals, i.e., mergers, acquisitions and joint ventures. New projects refer to the creation of new operations, often labelled as greenfield FDI, whereas expansions involve the expansion of operations by the existing foreign investor at the same project location while co-locations relate to a project at the same site but in a different business function. The expansion and co-location projects can, therefore, be seen as re-investment projects in that these projects are undertaken after an initial investment at the current site (Jones et al., 2020). Re-location projects involve the relocation of an existing project from a different site but are relatively few in number. With regard to project deals, the majority of these involve mergers and acquisitions, and in particular acquisitions whereby the foreign investor acquires a majority stake in the domestic company.

The main sources of information for the Orbis data are online news providers (LexisNexis Moreover News Desk and Dow Jones Factiva), government data exchanges, company websites, company reports and other Bureau van Dijk products. In the case of FDI deals, it also includes information from global stock exchanges. It is advantageous over reliance on solely national governmental agencies in that the latter are less likely to fully capture smaller FDI projects (Jones and Wren, 2016), which are also likely to be more numerous in the creative industries (Fazio, 2019). It is also advantageous over other FDI collection agencies, such as fDI Markets and the European Investment Monitor, in that these do not collate information on mergers and acquisitions so that again are under representative of all FDI inflows.

The Orbis data also records information on the date of the investment, the industrial activity of the investment, the location of the foreign investor in the UK and the home country of the investor's parent company. The date of the investment relates to the announcement date when details of the investment have been formally announced and covers the period 2013 – 2020, and this allows identification of FDI in the creative industries, where these are defined in accordance with the UK Department for Digital, Culture, Media and Sport definition (DCMS, 2021).

Figure 1: FDI Projects by Year



In total, for years 2013 to 2020, the database reports details on 1,807 FDI projects in the creative industries. These are shown in Figure 1, which for comparison also presents FDI in the overall Digital, Culture, Media and Sport (DCMS) sectors, the service sector (being the dominant sector for UK inward investment) as well as total inward UK foreign direct investment. FDI in the creative industries accounts for 10 per cent of all FDI and this proportion has remained stable over time matching the increase in overall FDI from 2016 and the subsequent Covid-19 related decline in 2020. The decline in creative industries FDI has, however, been slightly less pronounced so that in 2020 FDI in the creative industries accounted for 12 per cent of total FDI. Further, creative industries FDI is a large contributor to the broader DCMS sector, accounting for over a third of this investment.

With respect to the location of the investment, details are recorded at two levels of spatial disaggregation in the UK, the highest being the NUTS 1 regional level corresponding to the nine Regions in England together with Scotland, Wales and Northern Ireland, while the smallest spatial disaggregation is at the urban level of the city or town of the investment. Information at the regional and urban level was initially known for 95% of the foreign investors in the creative industries (1,712 of the 1,807 projects/deals), but a subsequent search process that involved checking the date of the announcement of the project, name of the investor's parent company and name of investor with the Companies House Register online database, together with the investor's website and online search engines, enabled location details to be known for 1,792 of the 1,807 projects. This accounts for 99 per cent of all creative industry FDI in the period thereby giving comprehensive information on the location details of FDI in the creative industries over the period. The next section unpacks the data to give a snapshot of inward FDI into the UK creative industries.

4. UK Inward FDI in the Creative Industries: A Description

4.1 FDI by Project Type and Industrial Activity

Table 1 shows FDI in the creative industries according to project type. It is characterised predominantly by mergers and acquisitions (M&As) and new projects, which together account for 85 per cent of creative industry FDI. The dominance of these types of FDI can also be seen for both the DCMS and service sectors, although M&As are more likely to arise in both the creative industries (53 per cent) and in the DCMS sector (46 per cent) compared to services (31 per cent) and overall FDI (37 per cent), with the opposite pattern for new FDI projects. This shows the appeal of existing UK creative firms for international investors. As discussed in the introduction, this could be a sign that international investment comes to the rescue of creative firms struggling to find the capital needed to grow domestic financial markets (see Di Novo et al., 2022). However, these could also be projects simply aiming to export the assets of firms with the high IP value and growth potential. Further investigation is needed to assess which of the two motives is behind the large share of M&As compared to new projects.

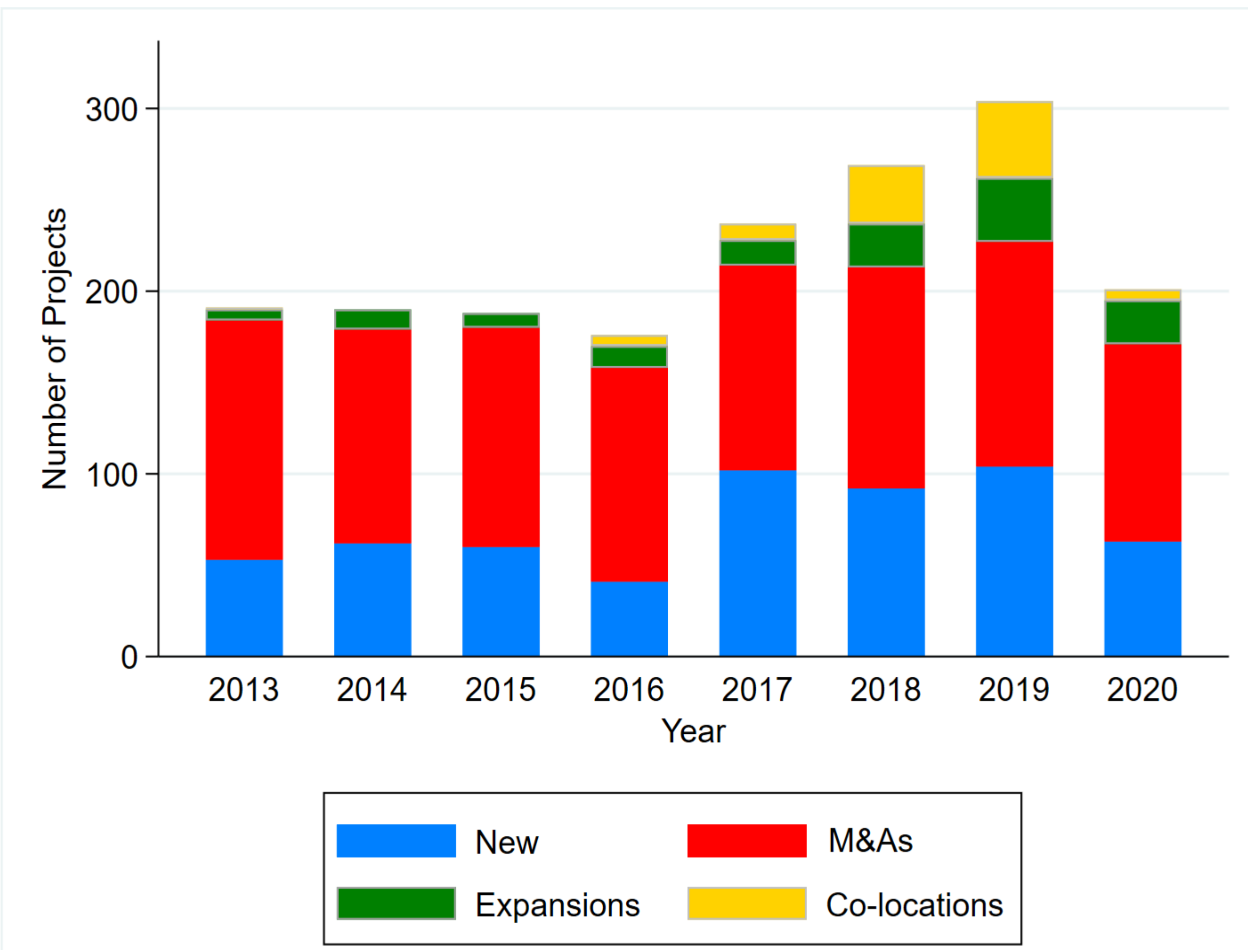
Expansion and co-location projects are much less prevalent. Yet the numbers in Table 1 allow us to see how international investors keep investing in past projects (7 per cent of projects to expand and 5 per cent of projects to co-locate). The remaining 3 per cent of creative industries FDI is accounted for by re-location projects and joint ventures that are limited in number. Figure 2 gives the breakdown of project type over the period 2013 – 2020 for the main modes of entry and again highlights the dominance of both new projects and mergers and acquisitions as the mode of entry of FDI. It also however points to the relative rise in both expansion and co-location projects over the time period, with 18 per cent of projects in the second-half of the period as re-investment projects compared to just 6 per cent in the first-half of the period, suggesting that re-investments of current foreign investors are becoming more prevalent over time. While the share of M&A seems to remain constant over time, the period after the Brexit referendum shows both an increase in new and an expansion of existing ventures. It is also worth noting a contraction in the year of the referendum, which, albeit moderate, could be due to the typical withholding of investment in the face of uncertainty.

Table 1: FDI by Type

Project Type	All FDI	Services	DCMS	Creative Industries
New	7,820 (45%)	7,349 (52%)	2,111 (41%)	577 (32%)
M&A	6,462 (37%)	4,421 (31%)	2,355 (47%)	949 (53%)
Expansions	1,641 (10%)	1,243 (9%)	343 (6%)	134 (7%)
Co-locations	708 (4%)	564 (4%)	186 (4%)	96 (5%)
Other	701 (4%)	583 (4%)	100 (2%)	51 (3%)
Total	17,332 (100%)	14,160 (100%)	5,095 (100%)	1,807 (100%)

Note: Other project type relates to joint ventures and re-location projects.

Figure 2: Creative Industries FDI by Project Type



Note: Creative industries FDI according to main mode of project type: New, M&As (mergers and acquistions), Expansions and Co-locations. Joint-venture and re-location projects not shown.

The breakdown of FDI by project type is also extended across the main creative industry groups, or sub-sectors, as defined by the DCMS (2021) and given in Table 2. FDI is heavily concentrated in the 'IT, Software and Computer Services' sub-sector, which accounts for 73 per cent of all creative industries FDI. In particular, while smaller in number, re-investment projects in the form of expansions and co-locations are disproportionately concentrated in the IT sub-sector with IT representing 82 and 92 per cent of their respective FDI projects. In addition, the 'Advertising and Marketing', 'Film, TV, Video, Radio and Photography' and 'Publishing' sub-sectors account for a further 21 per cent of creative industry FDI so that inward investment is overwhelmingly concentrated in just four sub-sectors. Mergers and acquisitions account for most of the investment within each of these groupings, with the exception being 'Architecture' where over half of these projects are new projects. Further, new projects are more likely to invest in 'Advertising and Marketing' compared to mergers and acquisitions (12 per cent of new projects invest in this sub-sector compared to 9 per cent of mergers and acquisitions). It is interesting that these two sectors, which are very service oriented, and whose economic valuation is less likely to be based on intangible assets, like intellectual property rights, see smaller proportions of M&A FDI and more new projects.

Table 2: Creative Industries Groups FDI by Project Type

Creative Industries Group	All Projects	New	M&A	Expansion	Colocation
Advertising and Marketing	162 (9%)	70 (12%)	85 (9%)	5 (4%)	0 (0%)
Architecture	47 (3%)	27 (5%)	12 (1%)	6 (4%)	2 (2%)
Crafts	3 (0.5%)	0 (0%)	3 (0.5%)	0 (0%)	0 (0%)
Design: Product, Graphic and Fashion Design	14 (1%)	3 (1%)	10 (1%)	0 (0%)	1 (1%)
Film, TV, Video, Radio and Photography	133 (7%)	49 (8%)	68 (7%)	8 (6%)	3 (3%)
IT, Software and Computer Services	1,313 (73%)	396 (69%)	679 (72%)	110 (82%)	88 (92%)
Publishing	95 (5%)	24 (4%)	61 (6%)	5 (4%)	2 (2%)
Museums, Galleries and Libraries	1 (0.5%)	0 (0%)	1 (0.5%)	0 (0%)	0 (0%)
Music, Performing and Visual Arts	39 (2%)	8 (1%)	30 (3%)	0 (0%)	0 (0%)
Total	1,807 (100%)	577 (100%)	949 (100%)	134 (100%)	96 (100%)

Note: Creative Industries Group based on UK Department for Digital, Culture, Media and Sport definition (DCMS, 2021)

Table 3: Creative Industries FDI by Project Type

Creative Industries NACE Classification	All Projects	New	M&A	Expansion	Colocation
IT, Software and Computer Services					
Computer Programming Activities	618 (34%)	191 (33%)	275 (29%)	76 (57%)	56 (58%)
Other Software Publishing	548 (30%)	179 (31%)	296 (31%)	28 (21%)	27 (28%)
Computer Consultancy Activities	138 (7%)	24 (4%)	103 (11%)	5 (4%)	4 (4%)
Other*	9 (1%)	2 (0.3%)	5 (1%)	1 (1%)	1 (1%)
Advertising and Marketing					
Advertising Agencies	115 (6%)	64 (11%)	45 (5%)	4 (3%)	0 (0%)
Public Relations and Communication Activities	46 (3%)	6 (1%)	39 (4%)	1 (1%)	0 (0%)
Other*	1 (0.1%)	0 (0%)	1 (0.1%)	0 (0%)	0 (0%)
Film, TV, Video, Radio and Photography					
Motion Picture, Video and TV Programme Production	59 (3%)	21 (4%)	29 (3%)	4 (3%)	1 (1%)
Television Programming and Broadcasting Activities	29 (2%)	12 (2%)	14 (2%)	0 (0%)	2 (2%)
Motion Picture, Video and TV Programme Post-Production	16 (1%)	8 (1%)	8 (1%)	0 (0%)	0 (0%)
Motion Picture, Video and TV Programme Distribution	10 (1%)	5 (1%)	4 (0.4%)	1 (1%)	0 (0%)
Motion Picture Projection Activities	9 (1%)	0 (0%)	7 (1%)	2 (2%)	0 (0%)
Photographic Activities	5 (0.3%)	2 (0.3%)	3 (0.3%)	0 (0%)	0 (0%)
Radio Broadcasting	3 (0.2%)	0 (0%)	3 (0.3%)	0 (1%)	0 (0%)
Other*	2 (0.1%)	1 (0.2%)	0 (0%)	1 (1%)	0 (0%)
Publishing					
Publishing of Journals and Periodicals	31 (2%)	4 (1%)	24 (3%)	1 (1%)	2 (2%)
Book Publishing	30 (2%)	7 (1%)	21 (2%)	0 (0%)	0 (0%)
Translation and Interpretation	13 (1%)	8 (1%)	3 (0.3%)	2 (2%)	0 (0%)
Publishing of Newspapers	8 (0.4%)	0 (0%)	5 (1%)	2 (2%)	0 (0%)
Other Publishing Activities	7 (0.4%)	1 (0.2%)	6 (1%)	0 (0%)	0 (0%)
Publishing of Directories and Mailing Lists	2 (0.1%)	0 (0%)	2 (0.2%)	0 (0%)	0 (0%)
Other*	4 (0.2%)	4 (1%)	0 (0%)	0 (0%)	0 (0%)
Architecture					
Architectural Activities	47 (3%)	27 (5%)	12 (1%)	6 (5%)	2 (2%)
Music, Performing and Visual Arts					
Sound Recording and Music Publishing	20 (1%)	5 (1%)	15 (2%)	0 (0%)	0 (0%)
Operation of Arts Facilities	16 (1%)	2 (0.3%)	13 (1%)	0 (0%)	0 (0%)
Sound Recording	1 (0.1%)	0 (0%)	1 (0.1%)	0 (0%)	0 (0%)
Performing Arts	2 (0.1%)	1 (0.2%)	1 (0.1%)	0 (0%)	0 (0%)
Design					
Specialised Design Activities	14 (1%)	3 (1%)	10 (1%)	0 (0%)	1 (1%)
Craft					
Manufacture of Jewellery and Related Activities	3 (0.2%)	0 (0%)	3 (0.3%)	0 (0%)	0 (0%)
Museums					
Library, Archive and Museum Activities	1 (0.1%)	0 (0%)	1 (0.1%)	0 (0%)	0 (0%)
Total	1,807 (100%)	577 (100%)	949 (100%)	134 (100%)	96 (100%)

A further indication of the concentrated nature of FDI is shown in Table 3 giving a breakdown at the four-digit level of industrial classification. Within the IT sub-sector, Computer Programming and Software Publishing account for over 90 per cent of this activity, which is the same for new, expansion and co-location projects and in the latter case of the re-investments this amounts to roughly 80 per cent of all FDI re-investment projects. Merger and acquisition projects also have significant investment in Computer Consultancy Activities indicating takeover activity arising across this sub-sector. Outside of the IT sub-sector, investment in 'Advertising and Marketing' relates mainly to Advertising Agencies, in particular for new projects, but extends into 'Public Relations and Communication Activities' for mergers and acquisitions. A less concentrated pattern emerges within the 'Film, TV, Video, Radio and Photography' and 'Publishing' sub-sectors where FDI arises in a range of industries, although notable industries include 'Motion Picture, Video and TV Programme Production' and for mergers and acquisitions 'Publishing of Journals and Periodicals'. Finally, 'Architectural Activities' are a feature of new project inward investment.

4.2 FDI by Source and Home Country Location

The location of inward investment is explored in Table 4, which in the first part of the table is broken down by global region of origin and in the second part by host region at the NUTS 1 level. Table 4 shows that North America and Europe account for the vast majority of inward FDI in the creative industries, which is similar to the pattern of inward investment in the DCMS sector with over 50 per cent of FDI originating in North America and 30 per cent from Europe. It does however contrast with the overall pattern of inward FDI in the UK, where Europe is the dominant investor, with nearly half of all FDI, followed by North America. This evidence is interesting and lends itself to a tentative preliminary interpretation and future investigation. We know from the literature that FDI and trade are linked (see Helpman, 2006). The higher proportion of EU projects compared to U.S. projects for overall FDI inflows could be due to the strong integration of UK and EU value chains developed over the several decades of membership and due, among other things, to geographical proximity. Indeed, overall FDI projects likely include many in manufacturing sectors and due to the vertical integration of production between the UK and the EU (vertical FDI). Economic integration also boosts FDI projects in the services sectors, as firms try to bypass service trade restrictions (horizontal FDI). The higher proportion of U.S. projects compared to the EU for the creative industries and DCMS sectors could be due to a number of reasons, including the U.S. dominance in areas like Information Technology (software and IT services, in particular), Entertainment and Media.

Table 4: Creative Industries FDI by Location

Location	All FDI	Services	DCMS	Creative Industries
(a) Origin				
North America	6,249 (37%)	5,285 (38%)	2,556 (51%)	949 (53%)
Europe	7,971 (47%)	6,488 (46%)	1,598 (32%)	588 (33%)
Far East and South Asia	1,453 (8%)	1,054 (8%)	436 (9%)	132 (7%)
Rest of the World	1,429 (8%)	1,176 (8%)	443 (9%)	133 (7%)
Total	17,102 (100%)	14,003 (100%)	5,033 (100%)	1,802 (100%)
(b) UK Region				
London	6,503 (40%)	5,884 (44%)	2,651 (54%)	975 (54%)
South East	2,070 (13%)	1,687 (13%)	603 (12%)	219 (12%)
East	857 (5%)	640 (5%)	182 (4%)	67 (4%)
South West	730 (5%)	598 (4%)	179 (4%)	74 (4%)
West Midlands	1,037 (6%)	780 (6%)	187 (4%)	65 (4%)
East Midlands	693 (4%)	517 (4%)	74 (2%)	32 (2%)
Yorkshire and Humber	872 (5%)	639 (5%)	154 (3%)	53 (3%)
North West	1,250 (8%)	981 (7%)	313 (6%)	108 (6%)
North East	405 (3%)	301 (2%)	73 (2%)	25 (1%)
Scotland	1,112 (7%)	855 (6%)	260 (5%)	83 (5%)
Wales	391 (2%)	302 (2%)	67 (1%)	23 (1%)
Northern Ireland	354 (2%)	296 (2%)	122 (3%)	68 (4%)
Total	16,274 (100%)	13,480 (100%)	4,865 (100%)	1,792 (100%)

Note: For projects where origin and source information are available. Project location know for 95% of projects in all FDI but 99% of projects in the Creative Industries.

Table 5: Creative Industries FDI by Origin and Project Type

Origin	All Projects	New	M&A	Expansion	Colocation
North America	949 (53%)	270 (47%)	523 (55%)	76 (56%)	60 (63%)
U.S.	835	249	448	69	54
Canada	103	21	66	7	6
Europe	588 (33%)	182 (32%)	315 (33%)	42 (31%)	23 (24%)
France	97	39	46	6	5
Ireland	77	21	41	8	5
Germany	76	20	44	4	6
Sweden	56	15	35	3	1
Netherlands	51	14	31	6	0
Far East and South Asia	132 (7%)	68 (12%)	44 (5%)	7 (5%)	9 (9%)
India	42	26	13	0	2
Japan	31	10	15	2	3
China	28	16	3	5	4
Singapore	15	9	6	0	0
Rest of the World	133 (7%)	54 (9%)	66 (7%)	11 (8%)	4 (4%)
Australia	54	17	33	3	2
Israel	25	13	7	3	0
Total	1,802 (100%)	574 (100%)	948 (100%)	136 (100%)	96 (100%)

Note: Origin of investment known for 1,802 of the 1,807 projects in the creative industries.

A further breakdown by country of origin is provided in Table 5, which shows the heavy concentration of US investment accounting for 46 per cent of all creative industry FDI. A similar pattern emerges by project type, but with even heavier US concentration for the re-investment projects with over 50 per cent of FDI originating from the US for both expansion and re-location projects. Canada, France, Ireland and Germany are the next largest providers of FDI, although for M&As Australia has notable investment and for new projects India, China and Israel also feature prominently. North American and European FDI is consistent with the overall pattern by project type in Table 1 with investment mainly by M&A, although more likely to be new project investment from the Far East and South Asia.

Table 6: FDI by Origin and Creative Industries Group

Origin	IT, Software and Computer Services	Advertising and Marketing	Film, TV, Video, Radio and Photography	Publishing	Architecture	Music, Performing and Visual Arts	Other
North America	687 (53%)	97 (60%)	81 (61%)	39 (41%)	13 (28%)	24 (61%)	8 (44%)
U.S.	602	88	63	37	11	22	8
Canada	78	7	14	2	0	2	0
Europe	421 (32%)	43 (27%)	37 (28%)	45 (47%)	23 (49%)	11 (28%)	8 (44%)
France	61	9	10	10	3	3	1
Ireland	60	8	4	1	3	0	1
Germany	53	4	3	8	2	4	2
Sweden	48	0	4	3	0	0	1
Netherlands	31	5	5	5	5	0	0
Far East and South Asia	105 (8%)	7 (4%)	6 (5%)	4 (4%)	7 (15%)	1 (3%)	2 (11%)
India	37	3	0	0	0	0	2
Japan	22	1	1	1	5	0	0
China	24	0	1	1	2	0	0
Singapore	10	1	2	1	0	0	0
Rest of the World	96 (7%)	15 (9%)	8 (6%)	7 (7%)	4 (8%)	3 (8%)	0 (0%)
Australia	44	3	2	3	1	1	0
Israel	20	2	2	1	0	0	0
Total	1,309 (100%)	162 (100%)	132 (100%)	95 (100%)	47 (100%)	39 (100%)	18 (100%)

The nature of the source of FDI is examined in Table 6, which provides a breakdown by creative sub-sector. Given the high concentration of FDI in the IT sector, Table 6 also shows that investment in this sector follows the overall pattern of creative industries FDI. Outside of the IT sub-sector, 'Advertising and Marketing', 'Film, TV, Video, Radio and Photography' and 'Music, Performing and Visual Arts' are all heavily dominated by North American and in particular US investment. Again, this could be a result of the above mentioned dominance of the US in related areas. Indeed, other sub-sectors, like 'Publishing', have a more even split across North American and European investment, but more likely to be European, while 'Architecture' has predominately European investment, which from Table 3 is associated with new projects. The latter, again, could be due to FDI of the horizontal type, where firms need to 'jump' the border to offer services that would not otherwise be tradable due to trade restrictions that persist even within the EU (e.g., recognition of professional qualifications). Investment by origin is consistent with the overall dominance of projects in the IT sub-sector, although European investment outside of this sector is more evenly spread across the other creative industries groupings compared with North American FDI.

In addition to the characteristics of the source location of FDI, the host country location is also examined in Table 4. Again, as with the other aspects of the nature of FDI in the creative industries, a concentrated pattern emerges with the London region accounting for over half of the investment. This concentrated pattern is in accordance with FDI in the DCMS sector, but more concentrated than that of overall UK FDI so that, apart from Northern Ireland, the remaining NUTS 1 regions have a lower proportion of creative industries FDI in comparison to overall FDI. Outside of London, the adjoining South East region accounts for the next largest concentration of FDI, so that these two regions are the location for two-thirds of FDI in the creative industries.

Table 7: FDI by Origin and UK Region

Region	North America	Europe	Far East and South Asia	Rest of the World	Total
London	529 (56%)	288 (49%)	78 (59%)	79 (60%)	974 (54%)
South East	122 (13%)	75 (13%)	5 (4%)	17 (13%)	219 (12%)
East	32 (3%)	27 (5%)	5 (4%)	3 (2%)	67 (4%)
South West	37 (4%)	28 (5%)	5 (4%)	4 (3%)	74 (4%)
West Midlands	28 (3%)	26 (4%)	5 (4%)	6 (5%)	65 (4%)
East Midlands	10 (1%)	20 (3%)	0 (0%)	1 (1%)	31 (2%)
Yorkshire and Humber	28 (3%)	17 (3%)	3 (2%)	5 (4%)	53 (3%)
North West	38 (4%)	46 (8%)	18 (14%)	6 (5%)	108 (6%)
North East	11 (1%)	10 (2%)	4 (3%)	0 (0%)	25 (1%)
Scotland	44 (5%)	25 (4%)	4 (3%)	8 (6%)	81 (5%)
Wales	10 (1%)	9 (2%)	4 (3%)	0 (0%)	23 (1%)
Northern Ireland	52 (6%)	12 (2%)	1 (1%)	3 (2%)	68 (4%)
UK	941 (100%)	583 (100%)	132 (100%)	132 (100%)	1,788 (100%)

Note: Location and origin of investment known for 1,788 of the 1,807 projects in the creative industris

Table 7 further breaks the FDI location by source of investment, with a similar pattern again emerging, although European investment is slightly less concentrated in London and more likely to locate in the remaining English regions compared to North American investment. Other notable location characteristics include North America being the main source of FDI in Northern Ireland, with European FDI being dominant in the North West and East Midlands.

Table 8: FDI by UK Region and Project Type

Region	All Projects	New	M&A	Expansion	Colocation
London	975 (54%)	375 (66%)	462 (49%)	69 (53%)	43 (45%)
South East	219 (12%)	32 (6%)	162 (17%)	9 (7%)	8 (8%)
East	67 (4%)	16 (3%)	43 (4%)	2 (1%)	5 (5%)
South West	74 (4%)	12 (2%)	54 (6%)	1 (1%)	4 (4%)
West Midlands	65 (4%)	10 (2%)	40 (4%)	4 (3%)	8 (8%)
East Midlands	32 (2%)	5 (1%)	24 (3%)	0 (0%)	2 (2%)
Yorkshire and Humber	53 (3%)	12 (2%)	31 (3%)	3 (2%)	3 (3%)
North West	108 (6%)	30 (5%)	59 (6%)	10 (8%)	7 (7%)
North East	25 (1%)	4 (1%)	15 (2%)	5 (4%)	0 (0%)
Scotland	83 (5%)	35 (6%)	34 (4%)	9 (7%)	4 (4%)
Wales	23 (1%)	11 (2%)	9 (1%)	1 (1%)	2 (2%)
Northern Ireland	68 (4%)	27 (5%)	12 (1%)	18 (14%)	10 (10%)
Total	1,792 (100%)	569 (100%)	945 (100%)	131 (100%)	96 (100%)

Note: Location of investment known for 1,792 of the 1,807 projects in the creative industries.

Table 9: FDI by UK Region and Creative Industries Group

Region	IT, Software and Computer Services	Advertising and Marketing	Film, TV, Video, Radio and Photography	Publishing	Architecture	Music, Performing and Visual Arts	Other
London	639 (49%)	128 (80%)	90 (70%)	64 (68%)	17 (37%)	31 (79%)	6 (33%)
South East	191 (15%)	8 (5%)	6 (5%)	6 (6%)	2 (4%)	5 (13%)	1 (6%)
East	50 (4%)	5 (3%)	5 (4%)	2 (2%)	1 (2%)	1 (3%)	3 (17%)
South West	58 (4%)	2 (1%)	1 (1%)	6 (6%)	3 (7%)	2 (5%)	2 (11%)
West Midlands	58 (4%)	2 (1%)	3 (2%)	0 (0%)	0 (0%)	0 (0%)	2 (11%)
East Midlands	25 (2%)	3 (2%)	1 (1%)	1 (1%)	2 (4%)	0 (0%)	0 (0%)
Yorkshire and Humber	39 (3%)	2 (1%)	4 (3%)	3 (3%)	5 (11%)	0 (0%)	0 (0%)
North West	84 (6%)	6 (4%)	8 (6%)	3 (3%)	6 (13%)	0 (0%)	1 (6%)
North East	23 (2%)	0 (0%)	1 (1%)	1 (1%)	0 (0%)	0 (0%)	0 (0%)
Scotland	61 (5%)	4 (2%)	2 (2%)	7 (8%)	7 (15%)	0 (0%)	2 (11%)
Wales	14 (1%)	0 (0%)	6 (5%)	1 (1%)	2 (4%)	0 (0%)	0 (0%)
Northern Ireland	63 (5%)	1 (1%)	2 (2%)	0 (0%)	1 (2%)	0 (0%)	1 (6%)
Total	1,305 (100%)	161 (100%)	129 (100%)	94 (100%)	46 (100%)	39 (100%)	18 (100%)

Note: Location of investment known for 1,792 of the 1,807 projects in the creative industries.

The dominance of M&A investment as the main entry mode in the creative industries is evident in Table 8, although this is relatively less concentrated in London compared to the other project types. In particular, M&A activity is dominant in the South East, with nearly three-quarters of projects in the region, although outside of the English regions it is the new projects that are the main type of investment. To explore further, the location of FDI for the main creative industry sub-sectors is given in Table 9 and highlights the size of the IT sub-sector in the South East with 88 per cent of projects in the region in the IT grouping. The importance of IT within each region is evident with all regions except Wales having more than 70 per cent of projects in the sub-sector and in the case of

Northern Ireland as high as 93 per cent (63 out of 68 projects arising in the IT sub-sector).

The location pattern for most creative industry sub-groupings is as expected centred on London, although there is variation to the extent of this concentration with ‘Advertising and Marketing’ and ‘Music, Performing and Visual Arts’ exhibiting the highest concentration levels. Other notable features in relation to the industry groups include the presence of ‘Film, TV, Video, Radio and Photography’ in Wales and the North West, ‘Publishing’ in Scotland and the South West, and ‘Architecture’ being the least concentrated in the London region and with significant project shares in Scotland, the North West and Yorkshire and Humber.

Overall, this is not good news from the creative industries in terms of the levelling up agenda, as FDI inflows seem to be disproportionately oriented toward London and the South East even more for the creative industries than for overall FDI. This is slightly more the case for investment from the US compared to investment from the EU. There are, however, some sub-sectors in some regions that seem to attract FDI outside London and the South East. This could suggest a scope for regional policies, as pre-existing clusters in specific sectors and investment support actions could be behind the ability of some sub-sectors in some regions to attract FDI away from the centre. We further investigate the concentration of creative FDI and the regional attractiveness toward creative FDI in the next sub-section.

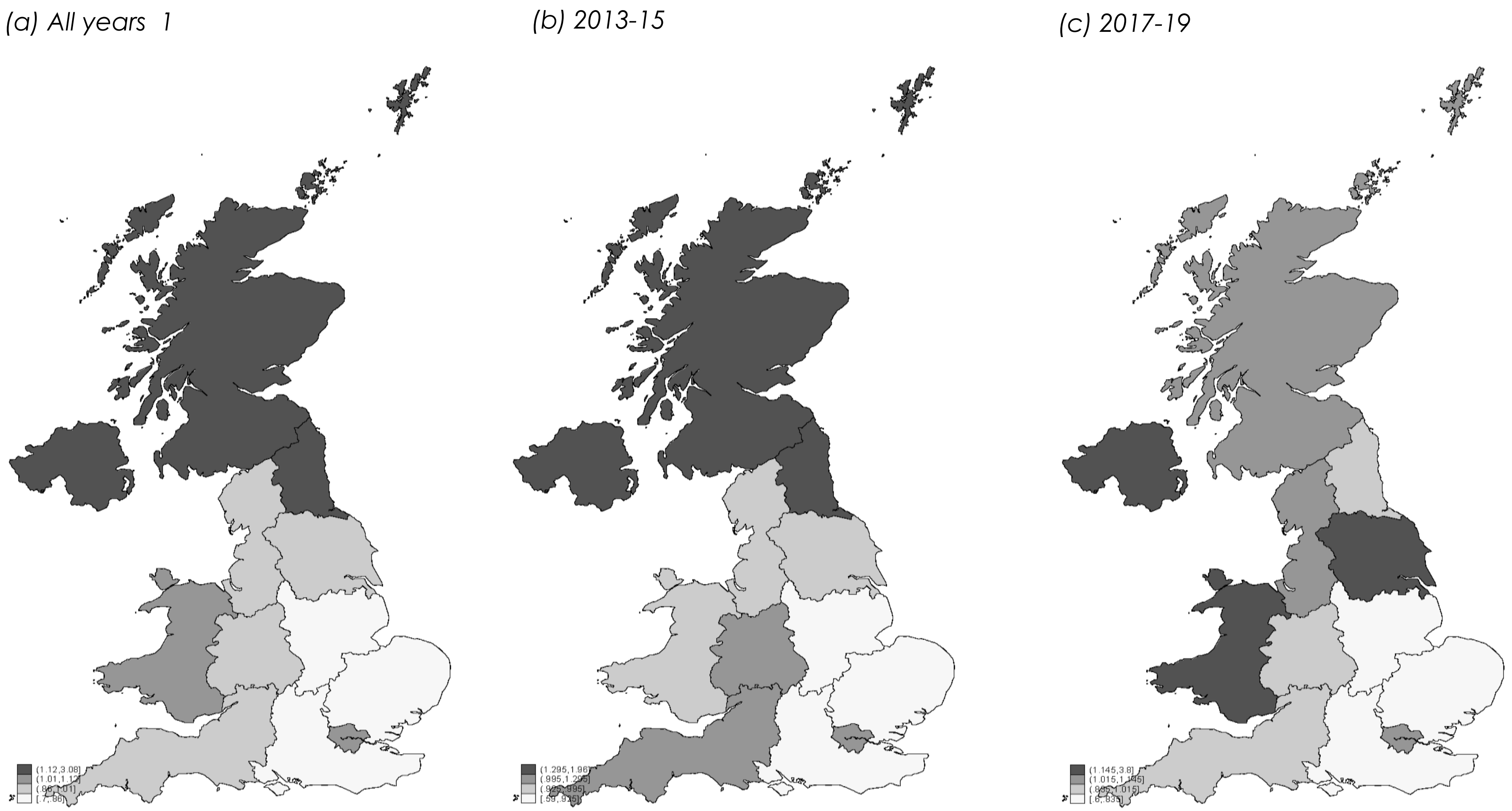
4.3 Concentration of FDI

The above discussion on the location of FDI makes no reference to the underlying distribution of economic activity so that large concentrations of FDI in London and the South East could simply reflect the greater economic size of these regions. To account for this, the following location quotient ($LQ_{i,r}$) can be used to analyse FDI in each region relative to the size of the region:

$$LQ_{i,r} = \frac{FDI_{i,r}/\sum_{r=1}^{R} FDI_{i,r}}{Q_{i,r}/\sum_{r=1}^{R} Q_{i,r}} \qquad (1)$$

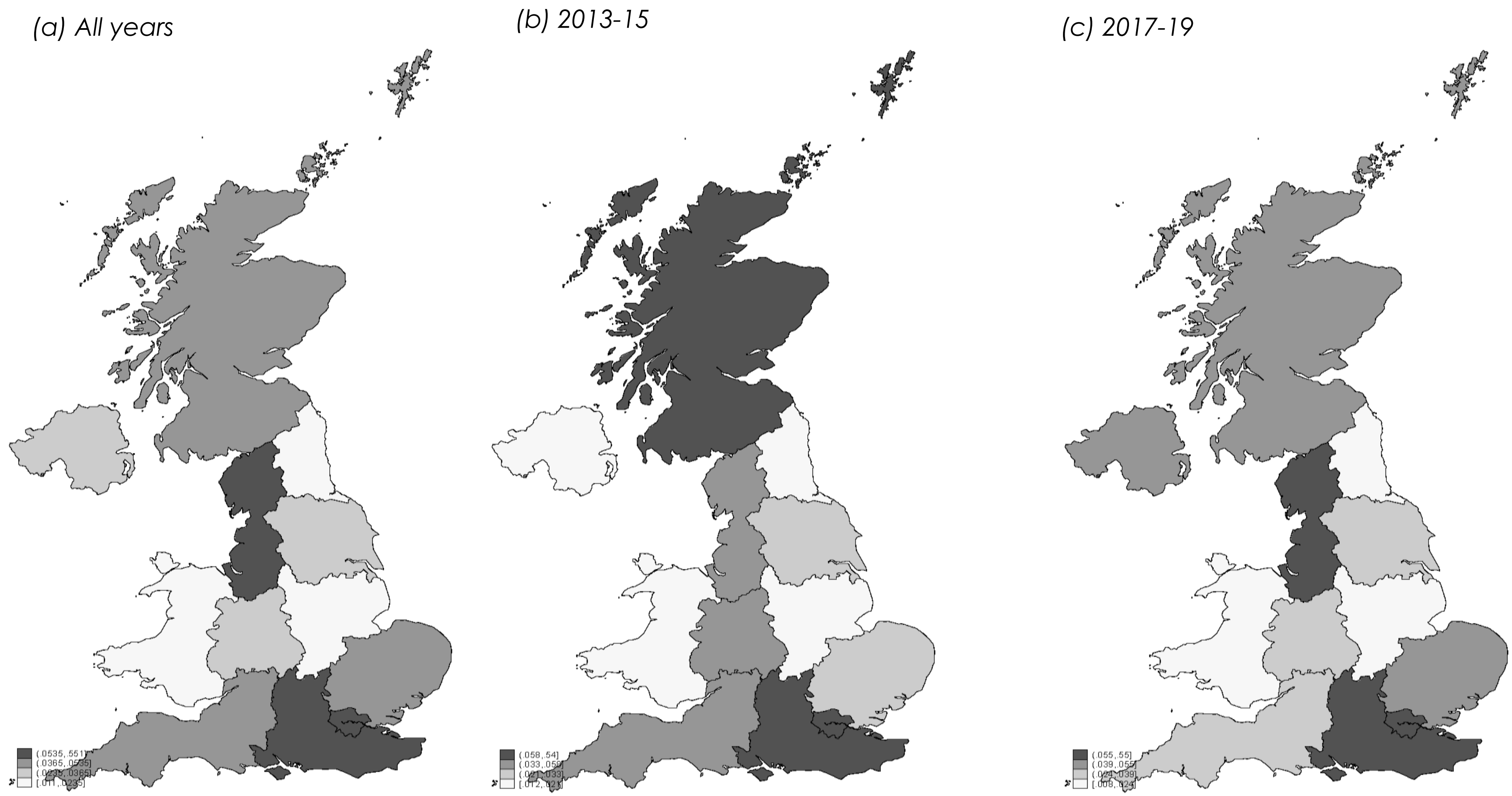
where, $FDI_{i,r}$ gives FDI inflows and $Q_{i,r}$ is the Gross Value Added in region *r* for creative industry *i*. Location quotients with values above (below) 1 implies that the region attracts greater (lower) levels of FDI relative to the economic size of the region, so it is a measure of the attractiveness of the region to the creative industries.

Figure 3: Geographic Distribution of Location Quotients



Note: Location quotients calculated according to Equation 1. Eurostat GISCO: Geographical Information and Maps for administrative boundaries.

Figure 4: Geographic Distribution of FDI Project Shares



Note: Location quotients calculated according to Equation 1. Eurostat GISCO: Geographical Information and Maps for administrative boundaries.

The location quotients for the aggregated creative industries groupings across all years are illustrated in Figure 3(a) and split by the first and last three years of the sample in Figures 3 (b) and (c) respectively. For comparison, Figure 4 provides the distribution of FDI project shares and a more detailed breakdown by year of both location quotients and project shares is provided in Appendix Tables A.1 and A.2. The regions are grouped into quartiles and Figures 3 and 4 highlight the sharp contrast between those regions attracting high levels of FDI and those attracting FDI relative to their underlying distribution of creative industries activity. In line with the evidence presented above, the regions surrounding London attract the highest levels of inward FDI (Figure 4), however these regions are the lowest ranking in terms of location quotients so that they are relatively underperforming in terms of their creative industry base.

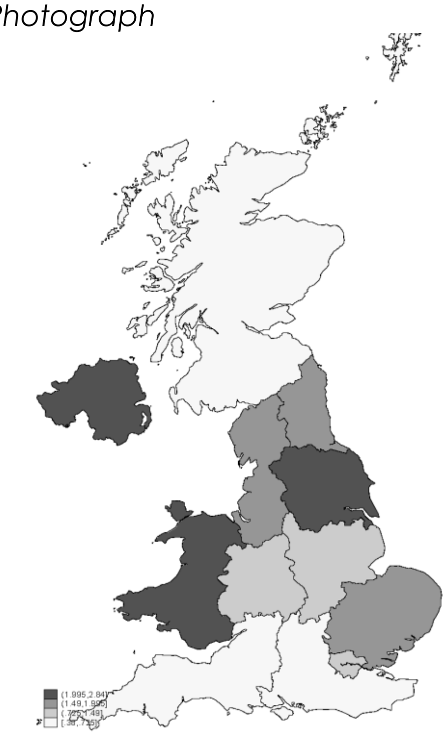
In contrast, as highlighted in Appendix Table A.2, FDI projects are much lower in number outside of London and the South East, but it is these peripheral regions that attract the higher levels of FDI relative to the size of their creative industries output. Of these regions it is Northern Ireland, Scotland and the North East that have the largest location quotients across the time period, although in the case of the North East in particular this stems from the region being the smallest region for creative industry output. Figure 3 does however highlight the extent to which Northern Ireland has outperformed in terms of FDI attraction relative to the size of its creative economy. By the end of the time period both Wales and Yorkshire and the Humber have also notably increased their shares relative to their creative economic output (Appendix Table A.1), although for Wales this is related less to increases in FDI attraction and more with the lower output levels of the creative industries in the later period.

Figure 5: Location Quotients by Creative Industries

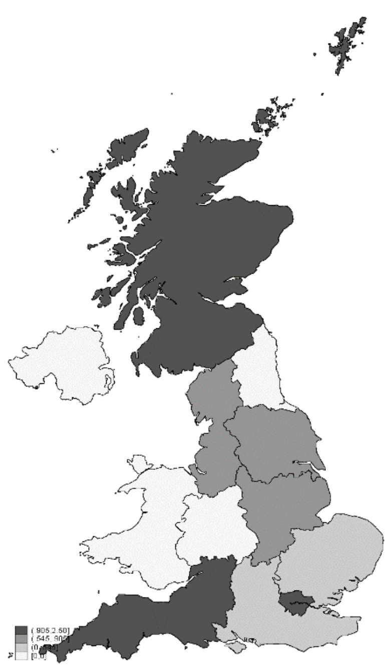
(a) IT, Software and Computer

(b) Advertising and Marketing

(c) Film, TV, Video, Radio and Photograph



(d) Publishing



(e) Architecture

Note: Location quotients calculated according to Equation 1. Eurostat GISCO: Geographical Information and Maps for administrative boundaries.

The geographic distribution of location quotients by the five largest creative industry sub-sectors is given in Figure 5, with a further breakdown by the 'IT, Software and Computer Services' grouping provided in Figure 6. Given the relatively small number of FDI projects within the industry sub-sectors these are calculated across all years. For IT and its constituent industries, London is consistently in the highest location quotient quartile demonstrating an ability to attract high levels of FDI in excess of its concentration of economic activity in these industries. In contrast, despite the South East region having a high concentration of FDI in these industries it has smaller location quotients suggesting it underperforms in the attraction of FDI relative to its level of economic activity in these industries. The South West attracts relatively high levels of FDI in both Software Publishing and Computer Consultancy activities, with Northern Ireland having a high location quotient in Computer Programming that reflects the overall pattern in the IT grouping in Figure 5a.

Of notable interest in Figure 5 is the mixed geographic pattern of the location quotients across the industry groups and this to some extent also reflects the distribution of FDI projects in Table 9. In particular, 'Film, TV, Video, Radio and Photography' locating in Wales, 'Architecture' in Scotland and Yorkshire and the Humber, and 'Publishing' in Scotland and the South West. Further, the extent to which the London region attracts FDI across industries is reflected by high location quotients in the 'Advertising and Marketing' and 'Publishing' industries in addition to the IT sub-sectors.

Overall, this suggests that, outside of London, there is a mixed pattern in terms of the concentration of FDI at the regional level and that this also varies, to some extent, across industries. To examine this further, a Concentration Index (CI) is utilised to analyse the extent to which FDI in an industry is concentrated relative to the underlying size of the region's creative industry base:

$$CI_i = \frac{1}{2}\sum_r \left| \frac{FDI_{i,r}}{\sum_{r=1}^{R} FDI_{i,r}} - \frac{Q_{i,r}}{\sum_{r=1}^{R} Q_{i,r}} \right| \qquad (2)$$

where, the index sums across regions the difference between a region's share of FDI and share of output. The Concentration Index ranges from zero, where smaller values indicate that the distribution of FDI reflects the underlying distribution of economic activity in the industry, to an upper value of one, where FDI and output are in single but distinct regions.

Table 10: Concentration Index by Industry

Year	Creative Industries	IT, Software and Computer Services	Advertising and Marketing	Film, TV, Video, Radio and Photography	Publishing	Architecture	Music, Performing and Visual Arts	Other
2013	0.106	0.264	0.250	0.238	0.202	0.500	0.262	-
2014	0.160	0.320	0.238	0.194	0.379	0.466	0.245	0.563
2015	0.112	0.190	0.151	0.211	0.348	0.426	0.363	0.945
2016	0.106	0.234	0.303	0.232	0.405	0.488	0.360	0.715
2017	0.117	0.262	0.165	0.195	0.389	-	0.376	0.459
2018	0.064	0.201	0.245	0.205	0.245	0.532	0.368	0.621
2019	0.114	0.251	0.206	0.366	0.323	0.448	0.309	0.672
All Years	0.068	0.218	0.159	0.114	0.223	0.273	0.193	0.396

Note: Concentration Index calculated according to Equation (2). Missing values relate to years with no projects in the industry.

The values for the index are presented in Table 10 and show that for the creative industries the pattern is one of low concentration and that this is also fairly stable over time. This aggregate measure for the creative industries as a whole does however hide the differing patterns that emerge across the separate creative industry groupings, with relatively larger values found for the IT, Publishing and Architecture sub-sectors. Each of the industry sub-sectors also have a concentration index greater than that of the overall measure for the aggregated creative industries, which implies that the individual industries have different concentration patterns in different regions so that overall these are diluted to reflect a less concentrated pattern for the creative industries as a whole.

The above analysis portrays a complex regional picture. While London maintains its dominant role in attracting FDI inflows, there are also sub-sectors and regions outside London that are able to attract FDI beyond the size of their creative economy. This highlights not only the importance of FDI for regional development, especially in view of the levelling up agenda pursued by the Government, but also the need to ascertain which regional factors, such as clusters and local policies in support of international investment in the area, may be influencing the decision of FDI location in the creative industries specifically. It is worth future investigation to what extent the attraction of FDI outside London could be due to local specialisation or to local policies or to a combination of the two. The cases of Wales and Scotland are interesting, because given their devolved nation status they may be able to more effectively implement actions specifically targeting investment (including international investment) in specific sectors. While similar incentives may apply to the whole of the UK when it comes to international investment, the local government and a well defined local strategy can act as a catalyst for international investors reducing the transaction costs involved in entering a foreign market in less known locations.

5. Conclusions

Despite the increasing importance of FDI in the world economy and the fast paced growth of the creative industries in the UK economy and international outlook, little to nothing is known about foreign direct investment specifically in the UK creative industries. Using information from the Bureau van Dijk Orbis Crossborder Investment Database for the years from 2013 to 2020, this paper starts bridging the gap in the evidence and helps raise questions for a policy-led research agenda. A number of facts emerge from the analysis of the data and are worth discussing.

FDI projects in the creative industries represent around a tenth of overall FDI projects to the UK. By comparison, the creative industries represented around 6% of the UK economy in 2019, according to DCMS. After a moderate slow down in the year of the Brexit referendum, FDI inflows have seen a marked increase until 2019 and then a marked reduction in 2020, coinciding with the first year of the pandemic but also with the last year before the new UK-EU deal. One can only speculate at this stage that the moderate reduction in 2016 was simply a withholding of investment in the face of uncertainty. It could be that Brexit has generated an increase in FDI projects by firms seeking to mitigate the costs associated with the additional barriers post-EU exit. **Future research is needed to dig into this issue and to gauge the causes for the drop in 2020 and to understand whether and how a new FDI growth spur can occur, in particular in relation to the UK-EU Trade and Cooperation Agreement and the pandemic.**

Interesting information arises also from the mode of entry of creative FDI. An overwhelming portion of these projects (85% of creative industry FDI) are either new investments or mergers and acquisitions. Compared to overall FDI to the UK, however, M&As are the prevailing mode of entry for foreign investment in the creative industries (and to a lesser extent the DCMS sectors in general). A possible reason for this may lie in the fact that the economic valuation of creative firms depends mostly on its intangible assets, and IP in particular. M&As allow the exploitation of ideas that are either mature or of great potential. At the same time, however, this could raise questions about the risk of expatriation of creative ideas exactly when they are ripe. A more benign interpretation could be that foreign capital actually helps local creative firms overcome the well known struggle to access domestic finance, often preventing them to scale-up. **Only future research can help disentangle which of the two reasons motivates the choice of international investors and whether foreign investors are benefactors or represent a possible menace.** However, while the share of new investments is smaller than for overall UK FDI, it is still a third of all creative FDI projects, which means that the UK is seen also as a good location for greenfield investment and can be a result of its overall openness to FDI. Importantly, there is also a healthy growth of FDI going into existing projects with 12% of these being either expansions or co-locations, which highlights some degree of commitment or sustained investment. **Another interesting question of interest from the policy standpoint is, then, what drives the attraction of creative FDI projects that later also attract further expansion.**

From the sub-sectoral break-down it is possible to observe how the lion's share (73%) of creative FDI goes into the 'IT, Software and Computer Services' sub-sector, followed by 'Film, TV, Video, Radio and Photography' and 'Advertising and Marketing', with large shares of FDI into these sectors in the form of M&As. Another difference, compared to overall FDI, is the larger share of US investment compared to EU investment, especially in the above sub-sectors, which are actually also those where the US is a global player. **It would be important to understand the motives behind these investments and to what extent they generate spillovers on the local economy and the UK creative industries in general.**

The spatial distribution of creative FDI inflows seems to reflect the overall spatial inequality of the sector in the UK economy, with London and the South East gaining the largest number of projects. However, the analysis of location quotients and concentration indices returns a more nuanced picture, showing the importance of creative FDI for regional development and its implications for the levelling-up agenda. The analysis shows that there is also life outside London and some regions seem to be attracting creative FDI beyond the size of their creative industries. A role seems to emerge for regional factors, such as sub-sectoral specialised clusters, and regional policies to attract FDI. **Future work into such roles, and how they could be enhanced, would be very valuable as it would help understand how making the UK a more attractive destination for creative FDI could be achieved without compromising the much desired levelling up objectives.** The recent experience and success of Scotland, Wales, and parts of England like Yorkshire and the Humber and the North West in some sub-sectors could represent a starting point for this analysis.

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Appendix

Appendix Table A.1: Location Quotients by Year

Region	2013 - 2019	2013 - 2015	2017 - 2019	2013	2014	2015	2016	2017	2018	2019
London	1.07	1.06	1.06	1.08	1.18	0.93	1.14	1.16	1.00	1.03
South East	0.74	0.75	0.67	0.87	0.61	0.75	1.02	0.62	0.85	0.57
East	0.70	0.59	0.83	0.48	0.59	0.71	0.40	1.13	0.86	0.58
South West	0.94	1.09	0.90	0.87	0.84	1.58	0.68	0.78	0.91	0.98
West Midlands	1.01	1.01	0.97	1.40	0.32	1.30	1.13	0.55	0.96	1.32
East Midlands	0.78	0.92	0.60	0.44	1.79	0.48	1.21	1.10	0.59	0.26
Yorkshire and Humber	1.01	0.98	1.19	0.69	0.56	1.72	0.19	0.30	1.47	1.59
North West	1.00	0.93	1.10	0.61	0.68	1.50	0.77	0.93	0.86	1.44
North East	1.14	1.96	0.84	1.56	2.69	1.64	0	0.80	0.73	0.96
Scotland	1.19	1.50	1.07	1.72	1.45	1.32	0.83	1.12	0.89	1.18
Wales	1.10	0.98	1.36	0.81	0.41	1.79	0.47	0.78	1.34	1.80
Northern Ireland	3.08	1.94	3.80	2.74	2.44	0.51	3.23	2.74	5.27	3.29

Note: Location Quotients calculated according to Equation (1) for all projects aggregated across all creative industries groupings.

Appendix Table A.2: Project Shares by Year

Region	2013 - 2019	2013 - 2015	2017 - 2019	2013	2014	2015	2016	2017	2018	2019
London	0.55	0.54	0.55	0.54	0.60	0.48	0.59	0.60	0.52	0.54
South East	0.13	0.13	0.11	0.16	0.11	0.13	0.18	0.10	0.14	0.09
East	0.04	0.03	0.05	0.03	0.03	0.04	0.02	0.07	0.05	0.03
South West	0.04	0.04	0.04	0.04	0.04	0.06	0.03	0.03	0.04	0.04
West Midlands	0.03	0.03	0.04	0.05	0.01	0.04	0.04	0.02	0.04	0.05
East Midlands	0.02	0.02	0.01	0.01	0.04	0.01	0.03	0.02	0.01	0.01
Yorkshire and Humber	0.03	0.03	0.03	0.02	0.02	0.05	0.01	0.01	0.04	0.05
North West	0.06	0.06	0.06	0.04	0.04	0.09	0.04	0.05	0.05	0.08
North East	0.01	0.02	0.01	0.02	0.03	0.02	0.00	0.01	0.01	0.01
Scotland	0.05	0.06	0.04	0.07	0.06	0.05	0.03	0.05	0.04	0.05
Wales	0.01	0.01	0.01	0.01	0.01	0.02	0.01	0.01	0.01	0.02
Northern Ireland	0.03	0.02	0.04	0.03	0.03	0.01	0.03	0.03	0.06	0.04

Note: Project shares calculated according to the numerator in Equation (1) for all projects aggregated across all creative industries groupings.

Appendix Table A.3: Location Quotients by Industry

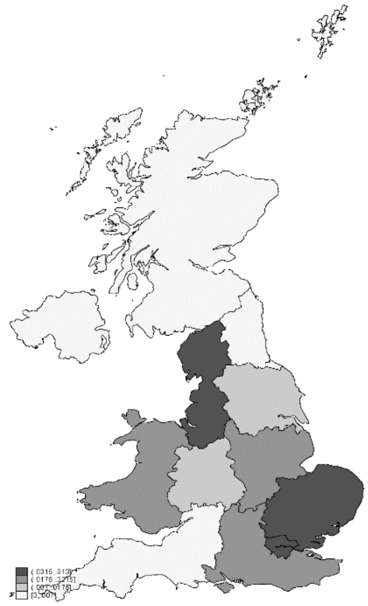
Region	Creative Industries	IT, Software and Computer Services	Advertising and Marketing	Film, TV, Video, Radio and Photography	Publishing	Architecture	Music, Performing and Visual Arts	Other
London	1.07	1.62	1.22	0.92	1.31	0.80	1.26	0.59
South East	0.74	0.55	0.22	0.53	0.41	0.37	1.07	0.36
East	0.70	0.50	0.96	1.72	0.21	0.39	0.72	4.04
South West	0.94	0.90	0.21	0.38	1.05	0.77	1.52	1.76
West Midlands	1.01	0.83	0.57	1.45	0	0	0	1.59
East Midlands	0.78	0.56	1.86	0.95	0.68	1.19	0	0
Yorkshire and Humber	1.01	0.77	0.65	2.24	0.76	2.90	0	0
North West	1.00	0.82	0.59	1.53	0.75	2.07	0	0.94
North East	1.14	1.07	0	1.75	0	0	0	0
Scotland	1.19	0.94	1.14	0.49	2.58	2.55	0	2.09
Wales	1.10	1.26	0	2.84	0	2.36	0	0
Northern Ireland	3.08	2.60	1.29	2.39	0	1.20	0	4.00

Note: Location Quotients calculated according to Equation (1)

Appendix Figure 1: Project Shares by Creative Industries

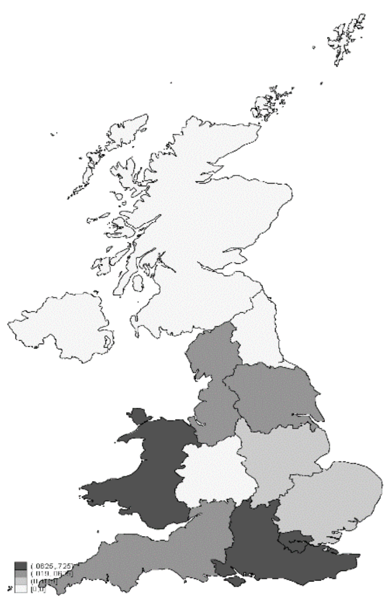
(a) IT, Software and Computer Services

(b) Advertising and Marketing



(c) Film, TV, Video

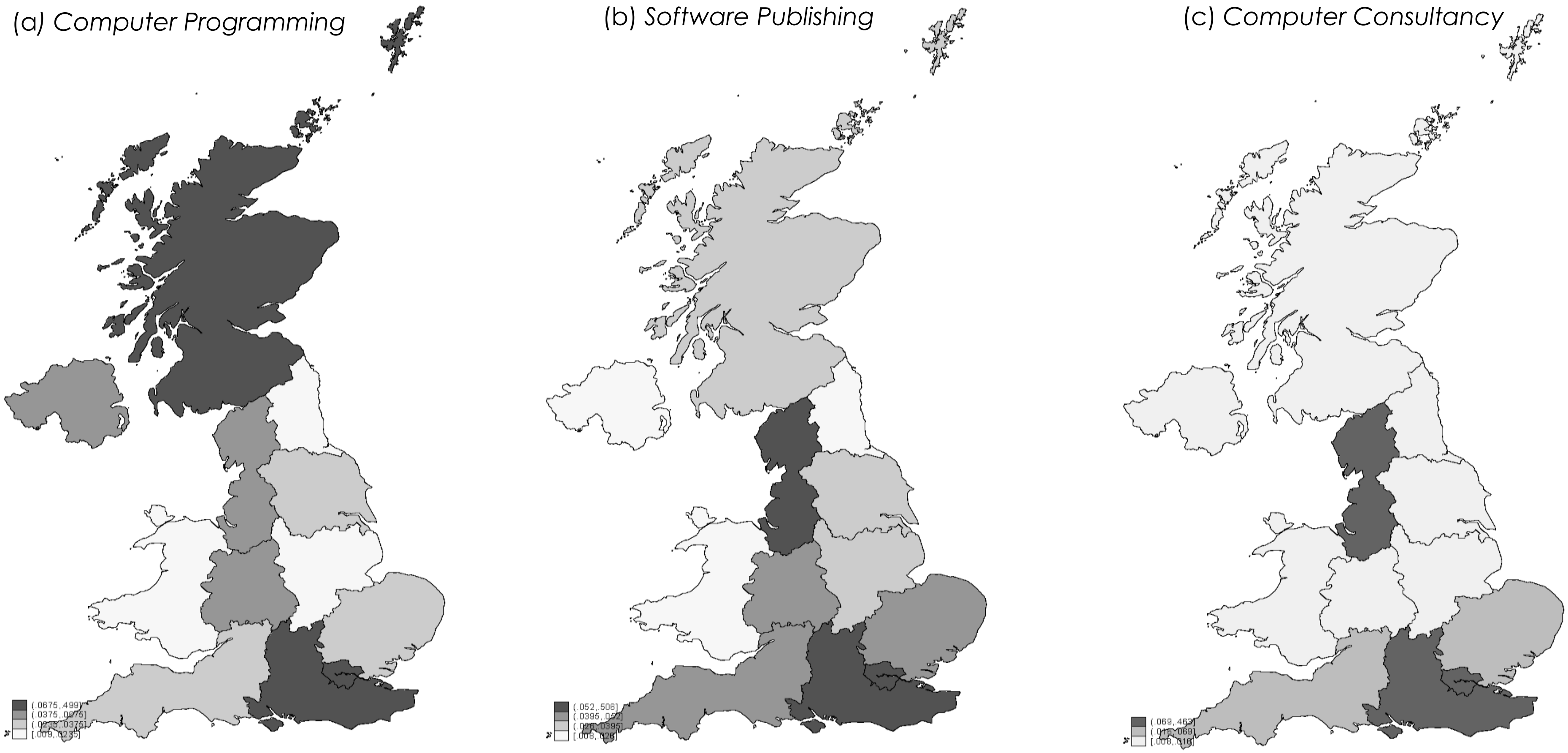
(d) Publishing



(e) Architecture

Note: Location quotients calculated according to Equation 1. Eurostat GISCO: Geographical Information and Maps for administrative boundaries.

Appendix Figure 2: Project Shares by IT, Software and Computer Services



Note: Location quotients calculated according to Equation 1. Eurostat GISCO: Geographical Information and Maps for administrative boundaries.

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