



## Frontier Economics

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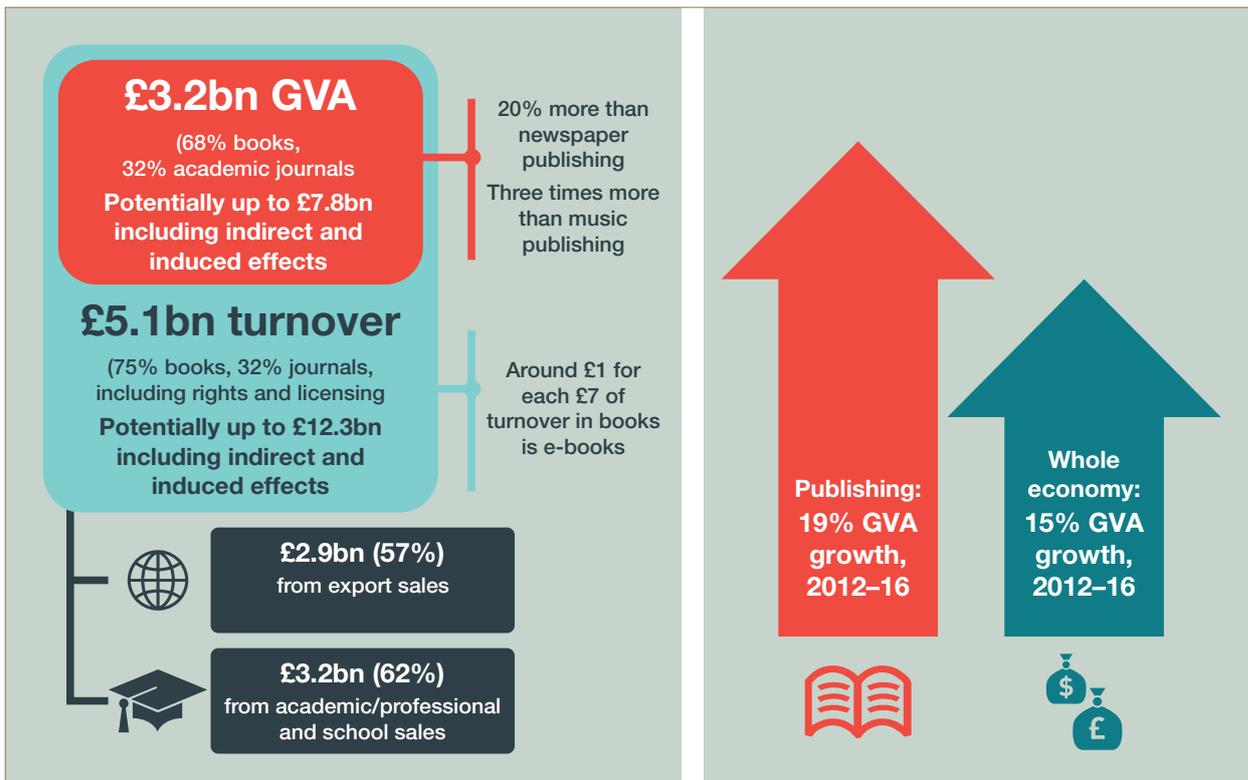
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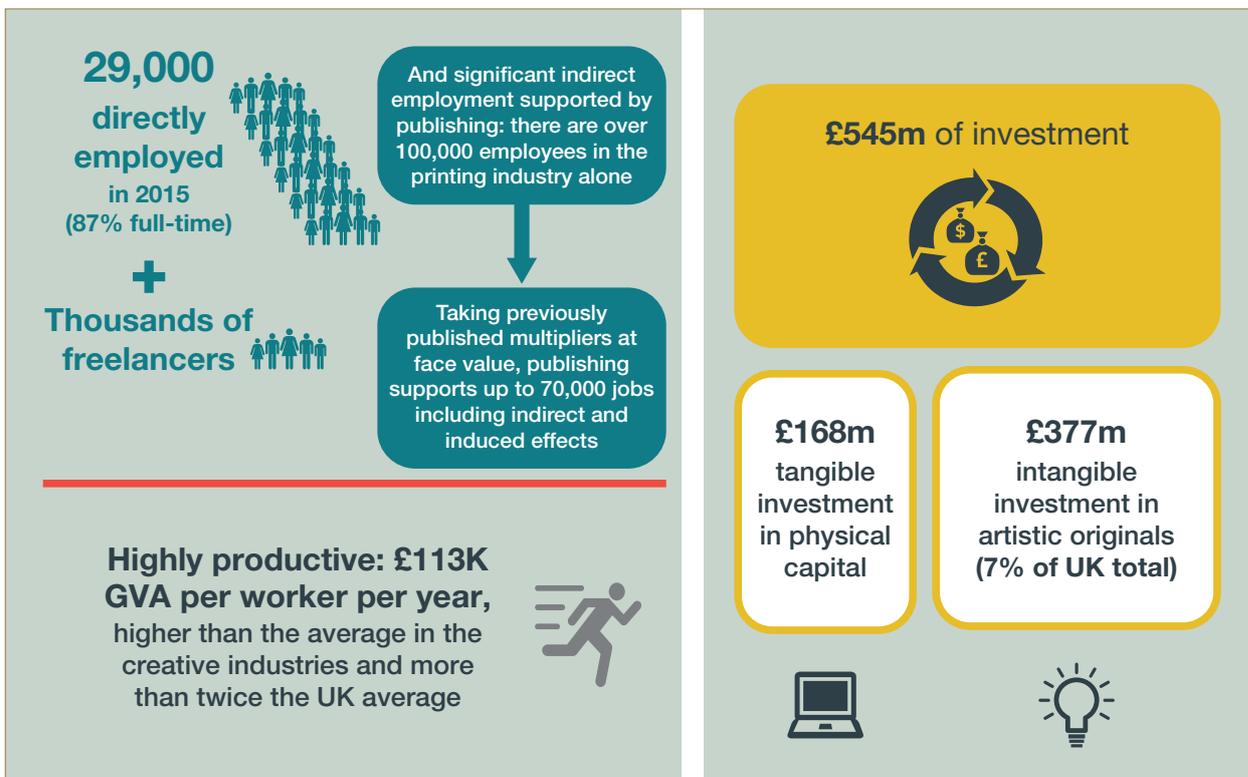
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# EXECUTIVE SUMMARY

## High turnover and value added, faster than average growth



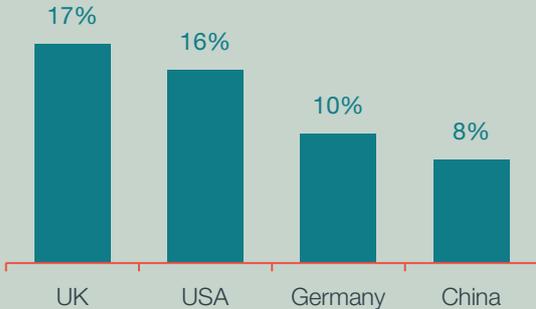
## Significant employment, highly productive, high investment



# A world-leading and diverse export industry, strong academic presence

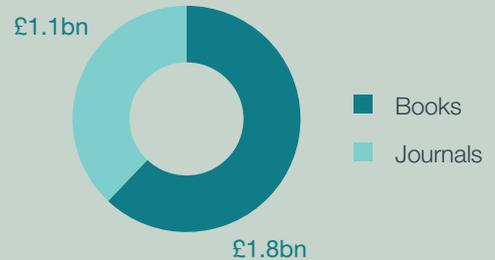
## Largest exporter of physical books

Share of global physical book exports



## £2.9bn in export revenue

UK publishing export revenue in 2016



## World leader in academic publishing

The UK is a relatively small country...



...with a big academic publishing footprint

- 1% of the world's population
- 4% of the world's researchers
- 10% of all academic publishers
- 16% of the most-cited journal articles

## UK publishing on the world stage



## Diverse export market

Publishing export revenue in 2016



Destination of exports



## Sizeable contribution to UK's trade balance

Total UK trade deficit in 2015

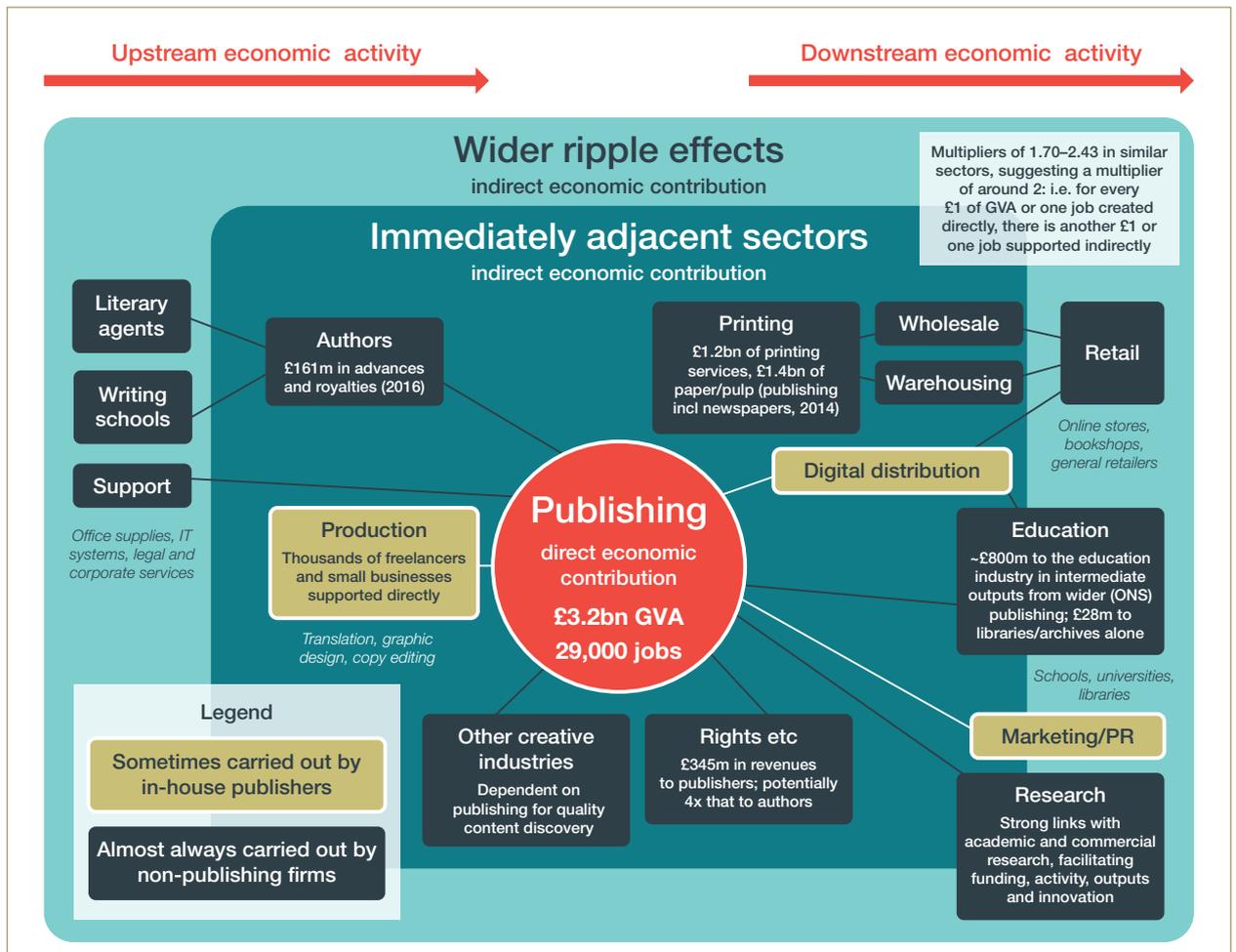
-£38.6bn



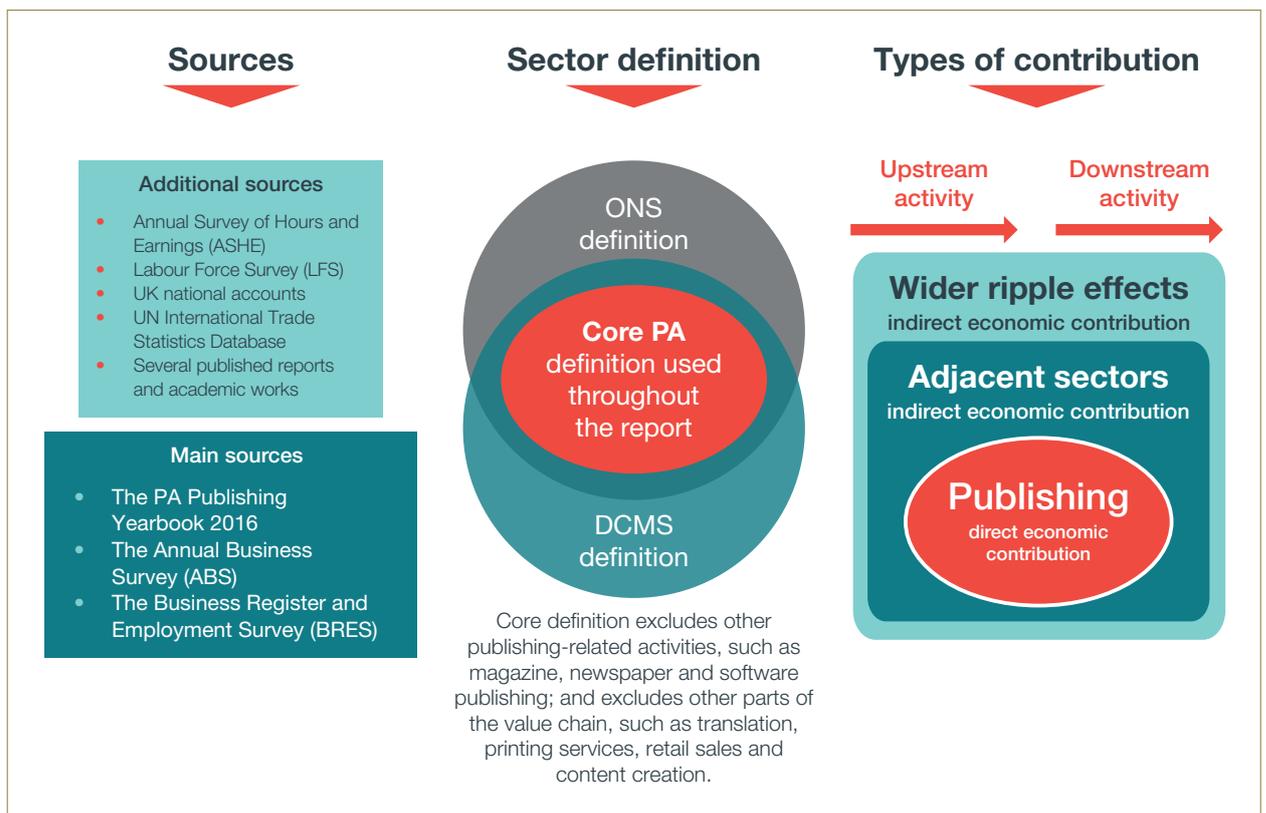
+£1.1bn

UK trade surplus from physical books alone in 2015

## Significant links to adjacent sectors



## Sources and approach



# 1 INTRODUCTION

This report provides an overarching view of the contribution of the book and academic journal publishing industry to the UK economy. It considers:

- The **direct contribution** of the industry in terms of various economic metrics such as gross value added, employment and productivity; and
- The **indirect contribution** of the industry through ties to adjacent sectors which rely on publishing, either upstream or downstream.

The report draws on a range of external sources, as well as on a series of stakeholder interviews with industry experts. We extend our thanks to all those who participated in those interviews.

## Sector overview

The UK publishing industry consists of three main groups of companies: multinationals; major UK publishers; and small independents.

The multinationals are major international companies, some British-owned and some foreign-owned, all of which have publishing operations in the UK. Some specialise mainly in book and journal publishing and information services (such as RELX, Informa and Thomson), while others are media conglomerates for whom book publishing comprises only a minor part of their activities (such as News Corp or Bertelsmann).

These multinationals take up a large share of the market in different segments of the book and academic journal publishing industry.

- In **consumer publishing**, for instance,<sup>1</sup> various brands (or “imprints”) owned or controlled by major multinational groups Penguin Random House (UK/Germany), Hachette (France) and HarperCollins (USA) generated over 44% of consumer sales.<sup>2</sup>
- In the **school and English Language Teaching (ELT)** market, Pearson (UK), Oxford University Press (UK) and Hodder (part of Hachette) are significant players.
- In the **academic and professional book** market, Pearson (UK), McGraw Hill Education (US) and Wiley (US) are some of the larger enterprises.
- In the **academic journals** market, RELX (UK/Netherlands), Springer Nature (Germany), Informa (UK) and Wiley (US) are the leading players.

These multinationals were largely formed by a succession of acquisitions and mergers from the 1980s onwards, and they continue to be acquisitive today. For example, Penguin Random House, the largest consumer book publisher in the world, was formed via the merger of two groups in 2013.

Multiple factors have pushed publishers to consolidate. First, the growing concentration of retailers in the UK encouraged publishers to maintain their negotiating power.<sup>3</sup> Second, increased size is useful for obtaining discounts on printing services and paper. Third, publishing firms are attractive to multinationals because they generate steady and relatively predictable cash-flows, thus balancing the high demand for cash of high-growth internet-based platforms, and the volatility of newspapers, magazines and other sectors heavily dependent on advertising revenue.

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1 Also known as trade publishing; can be further subdivided into fiction, non-fiction and children’s books.

2 Source: Publishers Association Market Report UK 2016.

3 Increasing concentration in book retailing began in 1995 after the collapse of the Net Book Agreement – a trade arrangement that enabled publishers to set the retail price of most books – as major supermarkets immediately began to sell books and large retailers began to buy up smaller independent bookstores. Today Amazon is a very strong player, with an 88% market share in e-books and a 35% share in the physical book market from bricks-and-mortar retailers (PA Market Report UK 2016).

Although the leading publishing firms have grown rapidly over time, they now tend to specialise in specific areas of expertise. Since the late 1990s, the multinationals have exchanged parts of their empires in order to achieve market leadership in their chosen sectors and divest their “non-core” divisions.

Among the second category, major UK publishers, there are a variety of players to be found with different sizes and specialisations. They range from large firms like Bloomsbury (UK publisher of Harry Potter, but also adult trade and academic books), Thames & Hudson (art books) and Faber & Faber (a leading literary publisher); to smaller companies with annual turnovers of around £500,000 each on average. Some are limited companies, others are owned by families or individuals. A few, such as Bloomsbury, are quoted on the stock exchange. In some cases they have operations overseas.

Finally, there are thousands of very small publishing operations, run by individuals or co-operatives, often on a part-time basis. These tend to publish in specialist areas, including poetry, art and local interest subjects or texts in Welsh, Gaelic or Scots languages. These players may be small in economic terms, but they retain a significant cultural influence in the UK and abroad.

In recent years, technological developments associated with the digitisation of content have enabled book publishing companies to revise their operational processes and organisational structures as new possibilities have arisen. These include data integration with supply-chain partners, online distribution, dynamic pricing, print-on-demand and e-books, among others. Digitisation has also provided opportunities for innovation in business models, enabling publishers to make their content more accessible and more informative.<sup>4</sup>

British based publishing companies have consistently performed well in global terms. For example, in the 2017 Global Publishing Ranking, five British based companies earned a quarter of the top 50 firms’ combined revenue.<sup>5</sup> Only the US’ eight publishers, which collectively earned 27%, had a greater share.

## Definition of the industry

Publishers of books and academic journals are part of a wider publishing industry that includes newspapers, magazines and software. Publishing is a prominent part of the UK’s creative industries, defined by government as:

“Those industries 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.”<sup>6</sup>

The UK’s creative industries have received increased attention in recent years. The Department for Digital, Culture, Media and Sport (DCMS) estimates that the creative industries accounted for 5.3% of all UK gross value added (GVA) in 2015.

We define the publishing industry as “*traditional enterprises engaged in book publishing and academic journal publishing, whether or not it is their primary activity*”. This definition most closely aligns with the Publishers Association’s (PA) members. We exclude magazine and newspaper publishing which have separate industry bodies.<sup>7</sup> We also exclude self-publishing; though recognise this has been a growing area of activity due to the possibilities enabled by digitisation. Our definition is summarised in **Figure 1**.

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4 An example of this is one educational publisher introducing a web-based, AI-powered assessment and learning system, which has been used by millions of students.

5 The Bookseller, September 2017, Trio of UK Publishers poised to join top performing quintet.

6 More formally the creative industries definitions defined based on the UK Standard Industrial Classification (SIC) of 2007 and includes publishing, advertising and marketing activities, architecture, crafts, design, film, TV, radio and photography, IT, software and video games, museums, galleries and libraries, music, performing and visual arts (DCMS, 2016, Creative Industries Economic Estimates).

7 For example, magazines have the Professional Publishers Association and newspapers have the News Media Association.

**Figure 1 Definition of the UK publishing industry used in this report**

We define the publishing industry as “traditional enterprises engage in book publishing and academic journal publishing, whether or not it is their primary activity”.

Included: Book publishing	Included: Academic journal publishing	Excluded: Other publishing related activities	Excluded: Other parts of the value chain
<ul style="list-style-type: none"> <li>■ Includes e-books and audiobooks</li> <li>■ Includes atlases, maps and encyclopaedias</li> </ul>	<ul style="list-style-type: none"> <li>■ Scholarly research intended for research-based readership</li> <li>■ Normally peer-reviewed</li> <li>■ Primary source of revenue is subscription (not advertisement)</li> <li>■ Appear &lt; 4x a week</li> <li>■ Print and electronic form</li> </ul>	<ul style="list-style-type: none"> <li>■ Self-publishing</li> <li>■ Consumer/business journals (magazines)</li> <li>■ Directories/mailling lists</li> <li>■ Newspapers</li> <li>■ Publishing of advertising material</li> <li>■ Software publishing</li> <li>■ Publishing of music</li> <li>■ Translation and interpretation</li> </ul>	<ul style="list-style-type: none"> <li>■ Content creation by authors and academics</li> <li>■ Distributors</li> <li>■ Retailers purchasers such as Amazon, bookstores, supermarkets and libraries</li> <li>■ Printing services</li> <li>■ Authors’ agents</li> <li>■ Bodies set up by the publishing industry such as the Publishers Association (PA) and the Publishers’ Licensing Services (PLS)</li> </ul>

Source: Frontier analysis, UK Standard Industrial Classification of Economic Activities 2007, ONS.

Note: Although our definition of publishing includes the publishing of translated books, it excludes translation activities when they are outsourced to translation agencies.

Our definition is closely related to the Office for National Statistics (ONS) system of Standard Industrial Classification (SIC) 2007, a method for classifying enterprises by the type of economic activity in which they are engaged. Using SIC codes for industry definitions is standard practice and has the advantage that official economic data are published based on these codes. The ONS has SIC codes for “Book publishing” and “Publishing of learned journals” and these SIC codes include all UK enterprises that publish books and academic journals as their primary activity.<sup>8</sup> These codes form the basis of some of our analysis.

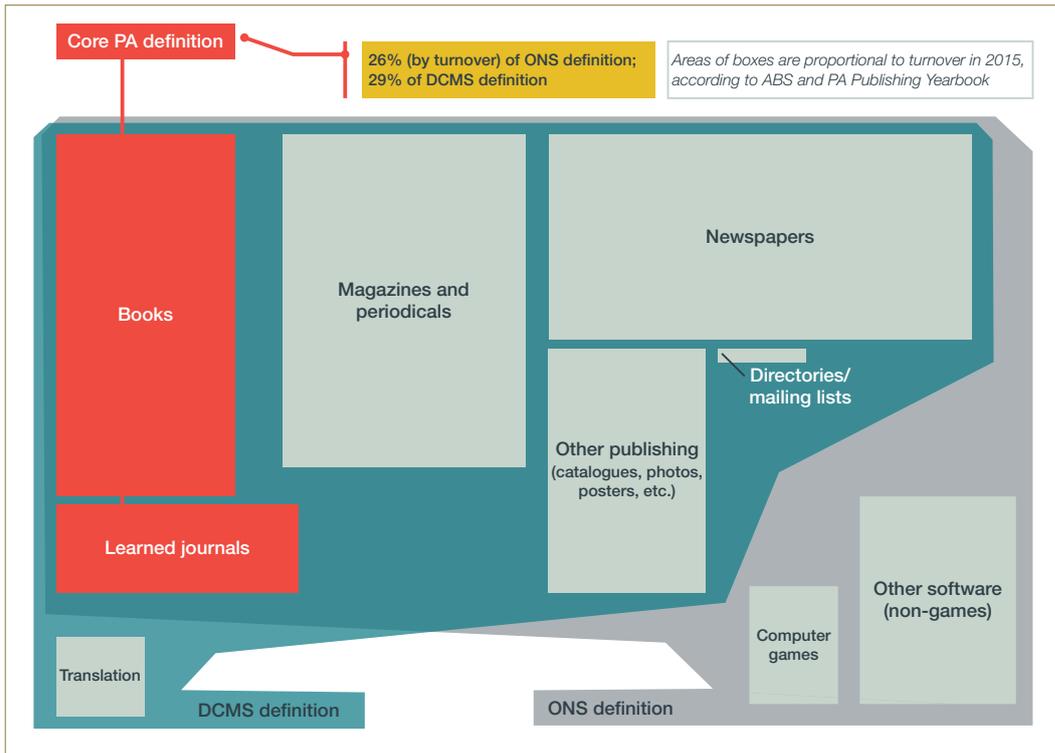
More broadly, we recognise that our definition is not the only one possible. Other definitions of ‘publishing’ may be more reasonable for other purposes.

- The ONS uses a much wider definition of “Publishing activities” that includes newspapers, magazines and software, among others.
- The DCMS also uses a wider, but slightly different, definition that includes additional industries and includes workers in publishing roles in other industries.
- Goodridge (2013) moves away from SIC codes entirely, using investment in creative assets protected by copyright as a basis for defining publishing. Unlike our definition, this includes the activities of authors themselves.

**Figure 2** highlights the main differences between the definitions of publishing used in this report and the sources above (see **Annex A.1** for more details).

<sup>8</sup> UK enterprises would include, for example, the UK arm of an enterprise with their headquarters in the United States. Where an enterprise carries out more than one type of economic activity, its principal activity is the activity in which most of the people are employed.

Figure 2 Different publishing definitions



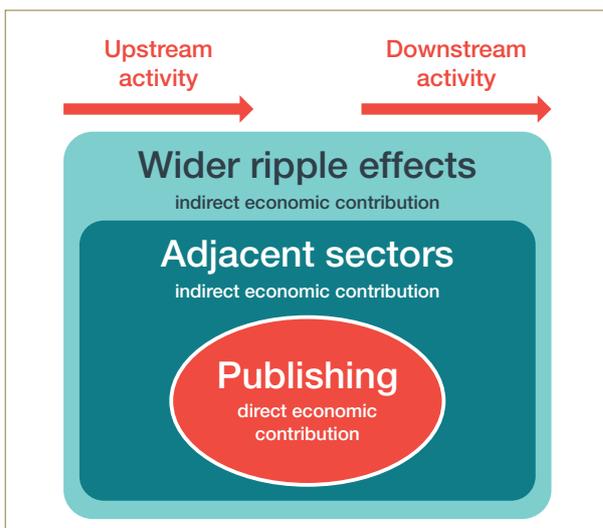
Source: Frontier analysis, UK Standard Industrial Classification of Economic Activities 2007, ONS, PA Publishing Yearbook, DCMS Economic Estimates

Note: Areas of boxes are proportional to GVA. Books and academic journals GVA estimated using PA Publishing Yearbook turnover and ABS GVA/turnover ratio. Other GVA figures directly from ABS. All figures from 2015. Although our definition of publishing includes the publishing of translated books, it excludes translation activities when they are outsourced to translation agencies.

## Methodology and sources

Throughout the report, we separate the direct and indirect contributions of the publishing industry, as shown in Figure 3.

Figure 3 Types of contribution



Source: Frontier Economics

**Direct impacts** are those that are clearly attributable to the sector, as they come from the economic activity happening within publishing firms. These are measures such as the number of people employed in publishing, the investments publishers make in equipment and intellectual property, and the gross value added (GVA) produced by publishing firms.<sup>9</sup>

**Indirect effects** come from ties between publishing and other sectors, creating an economic impact beyond the immediate value created within publishing itself. They also relate to wider ‘ripple’ or ‘induced’ effects generated when the incomes generated from publishing and adjacent sectors are spent, increasing overall economic activity.

These indirect effects can be quantified using ‘multiplier analysis’ based on economic input-output tables. Multiplier analysis is widely used, including in recent studies of the UK’s Creative sector.<sup>10</sup> But while multiplier analysis can be suggestive of the indirect effects of an industry, it can lack transparency and be difficult to calculate robustly for very particular subsectors of the economy.

Therefore our main focus is on the direct effects, and we supplement this using qualitative and quantitative evidence highlighting the key adjacent sectors and the relative importance of their ties to publishing. We also review the evidence on multipliers in creative sectors and apply this to approximate the magnitude of indirect effects.

Our approach is to first set out the value chain of publishing,<sup>11</sup> validated by numerous interviews with sector stakeholders. We then use data to provide indications of the key adjacent sectors and their size, and discuss the most significant ones and their degree of dependence on publishing.

In terms of data sources, we aim to use the best publicly available datasets for the different metrics in the report, and note the most recent data published. The main sources of data we have used in this report are:

- the *PA Publishing Yearbook* (previously *PA Statistics Yearbook*) for bottom-up estimates of turnover, GVA and exports with detailed splits by categories of publishing and export destination; and
- the **Annual Business Survey (ABS)** for estimates of the GVA/turnover ratio, labour productivity and capital expenditure.

The *PA Publishing Yearbook* is most closely related to our definition of publishing but the Annual Business Survey provides data on a wider range of economic indicators. As a result we tend to either use the *PA Publishing Yearbook* directly (such as for turnover and exports) or combine data from both sources (such as for GVA and investment in fixed assets).

We also draw on the following sources:

- the **Business Register and Employment Survey (BRES)** for employment estimates;
- the **Annual Survey of Hours and Earnings (ASHE)** for the gross annual pay of publishing workforce;
- the **Labour Force Survey (LFS)** and a report by **Nesta** on “*Skilled migration and the UK’s creative industries*” for the proportion of publishing workers from the EU and rest-of-the-world;<sup>12</sup>
- the **PA Market Report UK 2016**;
- the **DCMS Economic Estimates** to make comparisons between publishing and the other creative industries;
- the **United Nations International Trade Statistics Database (UN Comtrade)** to comparing UK book exports with book exports from other countries;

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9 Note that all our estimates are ‘gross’ effects, without taking into account the fact that if publishing did not exist, some of its business activity would eventually be diverted to other sectors. Estimating the magnitude of this is beyond the scope of this work.

10 See Figure 24 for details of these studies.

11 By this we mean both the supply chain (upstream) and distribution chain (downstream) around publishing.

12 Nesta, August 2016. *Skilled Migration and the UK’s Creative Industries*.

- **UK Business: Activity, Size and Location** for the size and location of publishing enterprises;
- the **UK National Accounts** for comparing publishing to the rest of the UK economy; and
- an independent academic source (Goodridge 2013)<sup>13</sup> for estimates of intangible investment.

We also draw on interviews we conducted with a range of stakeholders including book publishers, academic publishers, educational publishers and industry bodies for supplementary qualitative evidence and for broad confirmation of data from the official statistics and other sources.

More detail on our data sources and methodological approach is provided in **Annex A**.

This report focuses on the economic contribution of the UK publishing industry and tries to quantify the effects along a number of dimensions. We recognise of course that publishing also makes a wider educational, intellectual, social and cultural contribution to UK society (and the wider world). We explore some of these in a series of companion reports. For instance:

1. UK publishers produce textbooks and other published learning resources that schools, college and higher education systems rely on to produce an educated workforce. In particular, there is substantial evidence that textbooks save time for teachers.<sup>14</sup>
2. UK publishers play a major role in the support of the research, scientific and professional communities. In particular, publishers play a key facilitating role in different stages on the innovation cycle, from funding, research activity, research outputs and to assisting the absorption of innovation.<sup>15</sup>
3. UK publishers seed creativity in other sectors, such as film, television, games, live events and theatre. Specifically, publishing plays a central role in content discovery for film, TV and theatre, and is one of the leading sources for material in these industries. While often not involved in the adaptation process directly, publishers add value through a variety of indirect channels.<sup>16</sup>
4. Readers of published material derive considerable personal pleasure and well-being from reading as a leisure activity.
5. There is a great deal of evidence illustrating why stories and reading are so important to children, including impact on educational success, developing empathy, imagination, vocabulary and so on.<sup>17</sup>

This report does not attempt to quantify the value of these wider benefits, but they clearly add enormously to the value contributed by publishing. The statistics relating to the core direct impact of publishing must, nonetheless, be viewed in this wider context.

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<sup>13</sup> Goodridge, P., 2013. Film, television & radio, books, music and art: estimating UK investment in artistic originals. *Measuring the Contribution of Knowledge*.

<sup>14</sup> See companion report, 2018.

<sup>15</sup> See companion report, 2018.

<sup>16</sup> See companion report, 2018.

<sup>17</sup> See for example: Egmont Publishing, 2016, *Print Matters*; Egmont Publishing, 2017, *Print Matters More*; and The Empathy Lab <http://www.empathylab.uk>

## 2 DIRECT CONTRIBUTION

In this section we draw on a wide range of sources to provide a quantitative analysis of the direct economic contribution of the UK publishing industry.

### 2.1 Gross Value Added

The contribution that any business or industry makes to a country's economic output is measured by its gross value added (GVA). GVA is the difference between the value of goods and services produced (called turnover) and the cost of raw materials and other inputs which are used up in production of those goods and services.<sup>18</sup>

Because we consider the *PA Publishing Yearbook* to be the most reliable source of data on turnover in the publishing industry, and because GVA is closely related to turnover, we derive our GVA estimates for book and academic journal publishing using the *PA Publishing Yearbook* turnover figures.<sup>19</sup> Specifically we use a two-step process, estimating turnover from the *PA Publishing Yearbook* and then applying a GVA-to-turnover ratio derived from the Annual Business Survey.

Using this approach we estimate that the UK publishing industry directly contributed £3.2bn in GVA in 2016. Of this total, book publishing generated £2.2bn (68%), while academic journal publishing generated £1.0bn (32%).

This means that the UK publishing industry has directly contributed one-fifth more than the newspaper publishing industry (£2.5bn) and three times as much as, for example, the mining, quarrying and construction machinery manufacturing industry (£1.1bn).<sup>20</sup>

To provide further context, **Figure 4** shows the economic impact of book and academic journal publishing relative to selected creative industries using ABS data. In 2015,<sup>21</sup> book and academic journal publishing generated three times the value added of the sounding recording and music publishing industry (£1.0bn) but less than the television and broadcasting industry (£9.8bn).

# £3.2bn

The UK book and academic journal publishing industry directly contributed £3.2bn to UK GDP in 2016.

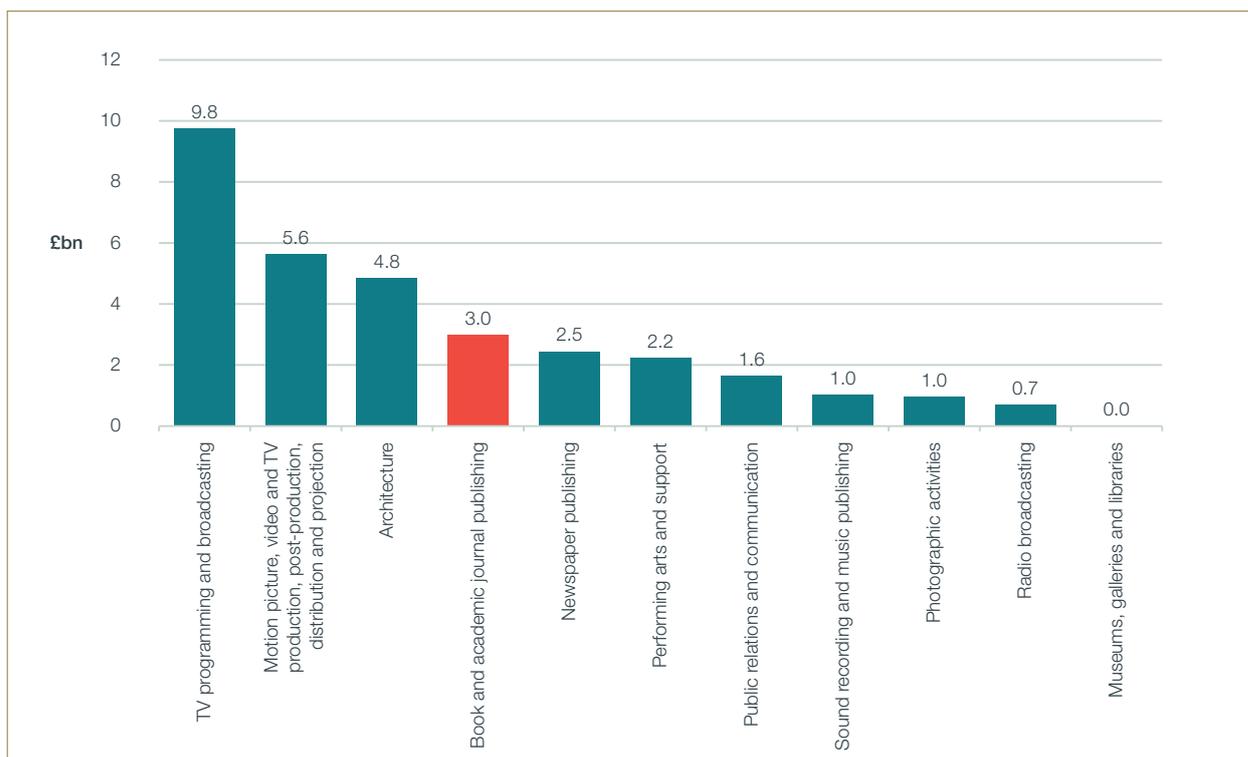
<sup>18</sup> GVA is usually calculated at basic prices, which means that the valuation of output includes net taxes (taxes minus subsidies) on the production process (such as business rates), but not net taxes on individual products that result from that process (such as Value Added Tax (VAT)).

<sup>19</sup> Other advantages of this method and an explanation for why we prefer it to using ABS data directly are detailed in Annex A.

<sup>20</sup> Figures taken from ABS for 2015.

<sup>21</sup> The ONS have not yet released ABS figures for 2016.

Figure 4 GVA in selected creative industries, 2015



Source: Frontier Analysis, PA Statistics Yearbook 2015, ABS

Note: GVA estimate for book and academic journal publishing uses turnover from the PA Publishing Yearbook 2015 and then applies a GVA/turnover ratio from the ABS 2015. ABS 2015 data is used for the other creative industries. The SIC codes related to these other creative industries are detailed in Annex A.4. Figures are rounded to the nearest £100m.

Since 2012,<sup>22</sup> UK publishing GVA has grown by 19%. This is faster than the growth of the UK economy as a whole (15%) and broadly in line with growth in the creative industries, as defined by DCMS, where GVA rose 20% between 2012 and 2015 (figures for 2016 have not yet been released).

These comparisons are illustrated in **Figure 5** where GVA is indexed to 100 in 2012. **Figure 5** also shows that GVA has grown in book publishing (11%) but has been particularly strong in academic journal publishing (41%).<sup>23</sup>

We can also compare the growth of publishing with the overall UK economy over a longer period of time, at least for book publishing (data on academic journal publishing is only available from 2012 onwards). Overall book publishing GVA is up 54% since 2007, compared with 25% for whole economy.

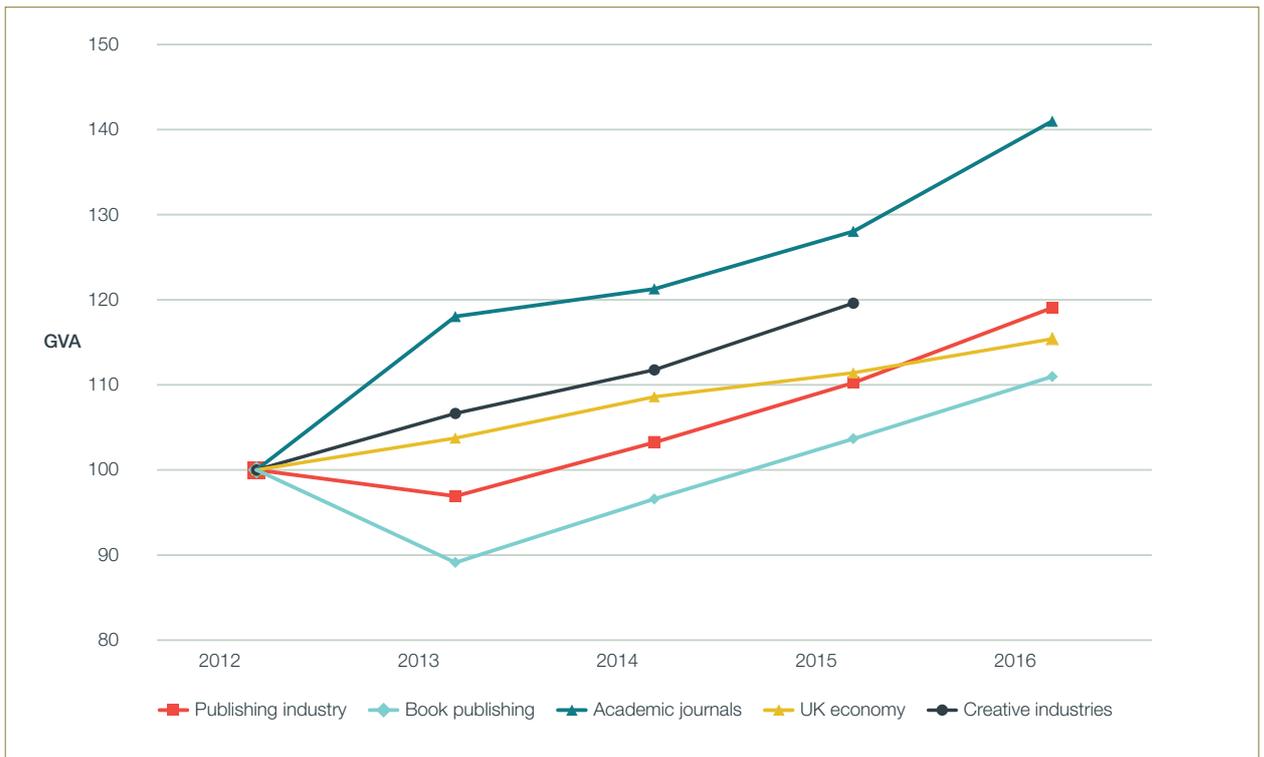
**19% vs. 15%**

**UK book and academic journal publishing growth in GVA 2012–2016 vs. UK whole economy**

<sup>22</sup> We use 2012 as a start year because 2012 was the first year that the data on academic journal publishing was collected in the PA Publishing Yearbook.

<sup>23</sup> Instead of using the PA Publishing Yearbook, a different source, the ABS suggests book publishing GVA grew 34% between 2012 and 2015. However, from correspondence with the ONS (dated 05.06.17) we learned that this much higher figure can be explained by a company with 250+ employees moving into the book publishing SIC code having previously been classified as a consumer and business journals publisher.

Figure 5 Index of GVA (2012=100)



Source: Frontier analysis, ABS, PA Publishing Yearbook 2016, ONS, DCMS.

Note: The creative industries time series is from the DCMS Economic Estimates 2016 which only cover the time period up to 2015. UK time series is from the ONS, Series ID: ABMI: Gross Value Added (Average) at basic prices. GVA estimate for book and academic journal publishing uses turnover from the PA Publishing Yearbook and then applies a GVA/turnover ratio from the ABS.

## 2.2 Turnover

Turnover is defined as total invoiced sales and receipts in connection with the sale of goods and services by firms operating in the UK publishing industry.<sup>24</sup>

Using the *PA Publishing Yearbook*, we estimate the UK publishing industry generated turnover of £5.1bn in 2016. This includes goods and services sold both domestically and abroad. Book publishing accounted for £3.8bn (75%) of turnover and academic journal publishing accounted for £1.3bn (25%).

**Figure 6** divides this total turnover figure up further. The largest source of turnover is book sales at £3.5bn (69%), the majority of which comes from print (£3.0bn) with the remainder from digital (£0.5bn). A second major source of turnover is sales of academic journals at £1.2bn (24%). Finally, there are smaller revenue streams such as rights income and coeditions income and secondary licensing income.

# £5.1bn

The UK book and academic journal publishing industry turnover in 2016

24

Turnover is closely related to revenue but excludes some forms of revenue such as interest income.

Together we estimate that these sources account for a further £345m (7%), with £257m from rights<sup>25</sup> (all books), £65m from coeditions (all books) and £23m from secondary licensing (a mix of £16m for books and £7m for academic journals).<sup>26 27</sup> The box below explains these additional sources of income and more detail on our revenue estimation is in **Annex A.3.1**.

## RIGHTS, COEDITIONS AND SECONDARY LICENSING INCOME

Although book sales and academic journal sales make up approximately 93% of publishing turnover, there are other, less well-known but still significant sources of income for publishers.

**Rights.** Publishers can lease or transfer the rights (sometimes called subsidiary rights) to produce or publish a book or journal in a different format. Rights can include the rights to publish different formats of the same work (i.e. hardcover, paperback, mass market, audio and electronic books), to create and publish translations of a work, to publish editions in different countries or regions, to publish an audiobook version, to distribute through book clubs, to adapt a work for film, television, radio or software, or to create sequels and spinoff material.

**Coeditions.** Publishers can lease or transfer the rights to sell a coedition. A coedition is an edition of a book published simultaneously by more than one publisher, usually in different countries or different languages. Coeditions can take advantage of the existing distribution systems of different publishers in each country (avoiding the need to establish new distribution systems).

**Secondary licensing.** Secondary licensing (or collective licensing) allows organisations and individuals to pay to copy published materials without breaking copyright law. For example, secondary licensing allows a school teacher to photocopy a chapter from a textbook for his or her class. In these cases, organisations such as businesses and schools pay an annual fee to the Publishers' Licensing Services (PLS) and the PLS distributes this money to the publishers whose materials have been copied. In 2016, book publishers received £16m (including £2.8m of exports) in secondary licensing income and academic journal publishers received £7m (including £1.7m of exports).<sup>28</sup>

**Figure 7** shows changes in turnover over the past five years. Both book and academic journal publishers enjoyed significant turnover growth in 2016; but over the past five years, academic journal publishing has generated the majority of the industry's turnover growth.

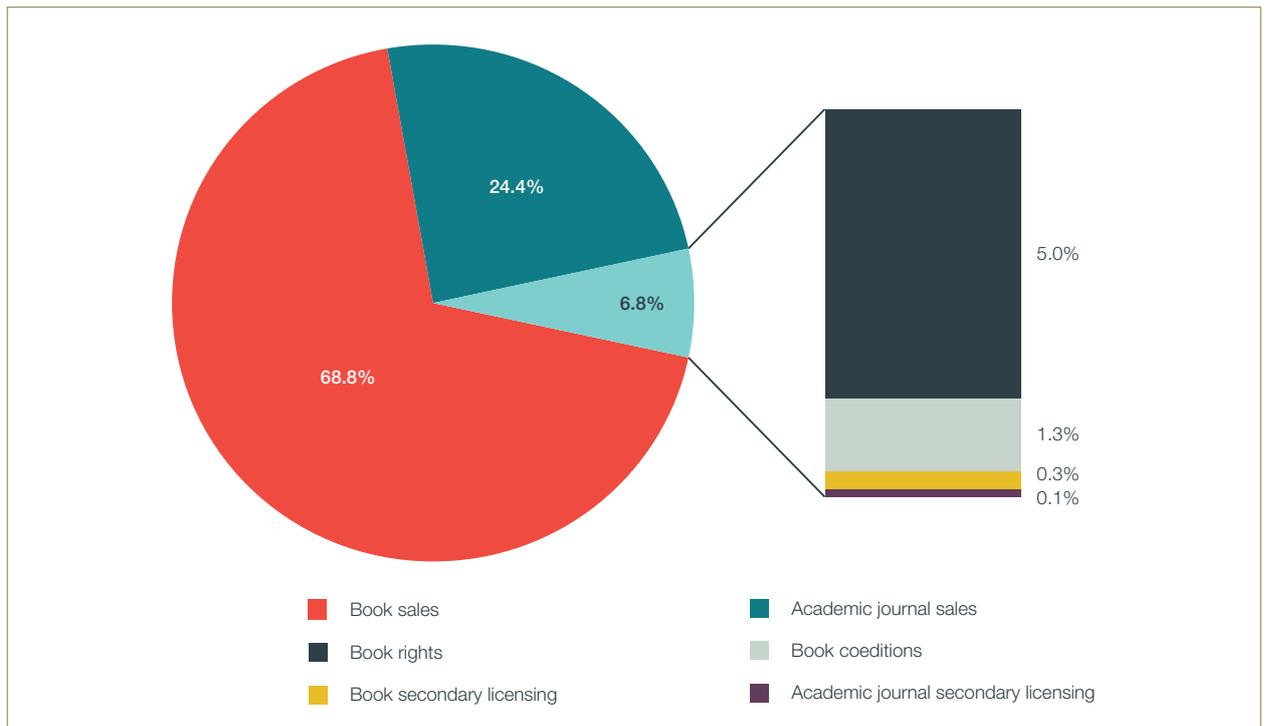
<sup>25</sup> Excluding secondary licensing income.

<sup>26</sup> The estimates of rights and coeditions income are conservative because they cover exports only. The estimates exclude domestic sales because the domestic rights deals are often complex, involving multiple publishers and literary agents, which makes double-counting difficult to avoid. Our stakeholder interviewees suggested that domestic rights sales were relatively small with one large consumer publisher suggesting at least 80% of their rights sales were exports. In contrast, secondary licensing income data comes from the PLS and does include domestic and export income.

<sup>27</sup> Our estimates of rights, coeditions and secondary licensing income differ slightly from the figures in the *PA Publishing Yearbook 2016*. There are three reasons for this. First, the *PA Publishing Yearbook* figures for rights and coeditions cover only 65% of the market so we gross up the *PA Publishing Yearbook* figures to get an estimate of the entire market. Second, the *PA Publishing Yearbook* gives a slightly higher figure for secondary licensing income (£35m) but during our interviews and subsequent correspondence, industry stakeholders told us that this includes £12m of secondary licensing revenue that was distributed to magazines. Third, we split secondary licensing income out from rights income. We adjust for double-counting which means our rights figure is slightly lower than is that implied by scaling up the *PA Publishing Yearbook* figure.

<sup>28</sup> PLS interview and correspondence dated 30.05.17.

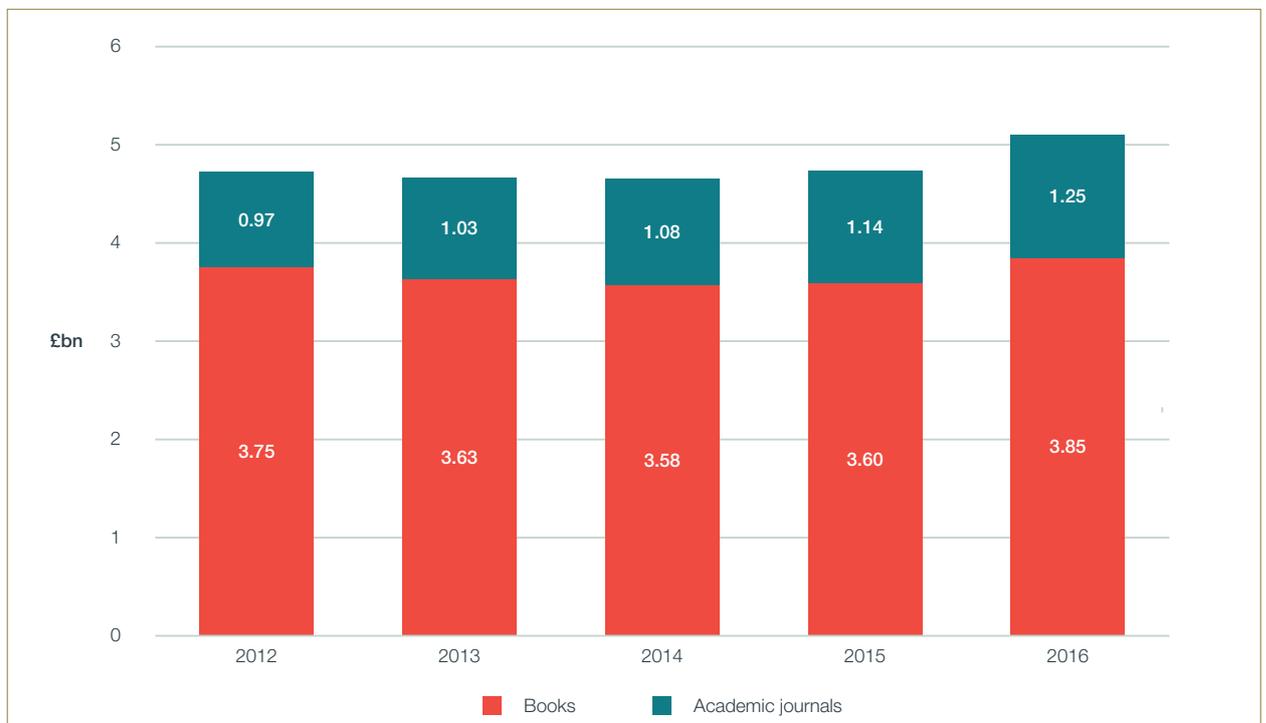
**Figure 6** Composition of publishing turnover in the UK, 2016



Source: Frontier analysis, PA Publishing Yearbook 2016, Publishers' Licensing Services.

Note: Book sales and academic journal sales directly from the PA Publishing Yearbook. Rights and coeditions income are "grossed up" to reflect turnover across the whole industry. Secondary licensing income from correspondence with the Publishers' Licensing Services. For more information see Annex A.3.1.

**Figure 7** UK publishing turnover 2012–2016



Source: Frontier analysis, PA Publishing Yearbook 2016, Publishers' Licensing Services

Note: Books turnover includes book sales, rights, coeditions and secondary licensing. Academic journals turnover includes journal sales and secondary licensing. Book sales and academic journal sales directly from the PA Publishing Yearbook. Rights and coeditions income are "grossed up" to reflect turnover across the whole industry. Secondary licensing income for 2016 from correspondence with the Publishers' Licensing Services. For more information see Annex A.3.1.

There are various ways of categorising the publishing industry but one of the most widely accepted is into (i) Academic and professional; (ii) Fiction; (iii) Non-fiction and reference; (iv) Children's; (v) School; and (vi) English Language Teaching (ELT).<sup>29</sup> Figure 8 shows the turnover generated by each of these categories, for books, academic journals and combined. Academic and professional publishing is the largest category, generating 50% of turnover with just under half of this coming from sales of academic journals.

**Figure 8 UK publishing turnover by category, 2016**



Source: Frontier analysis, PA Publishing Yearbook 2016, Publishers' Licensing Services

Note: Figures include book sales, academic journal sales and rights, coeditions and secondary licensing income. See p4 of the PA Publishing Yearbook for book sales splits and p92 of the PA Publishing Yearbook for book rights and coeditions splits. Rights and coeditions income are "grossed up" to reflect turnover across the whole industry. Domestic secondary rights income for books is unallocated. Numbers are rounded so may not add up to total turnover figures in the text.

The UK is recognised as amongst the world leaders in academic and professional publishing:

- The UK is home to 10% of all academic publishers and is responsible for the publication of around 400,000 research articles each year and 5,000 journal articles.
- Despite making up less than 1% of the world's population and 4% of researchers, the UK accounts for 10% of downloads, 12% of citations and 16% of the world's most cited journal articles, more than any other country except the US.<sup>30</sup>

Stakeholders told us that London and New York were the two key global hotspots for trade publishing (children's, fiction and non-fiction). The UK is strong in many niche areas of trade publishing, such as publishing in English of works from other cultures such as African, Caribbean and Indian literature.

UK publishers are also unsurprisingly highly competitive in areas of education publishing such as ELT and textbooks for international schools.

<sup>29</sup> The term "trade books" is often used to refer to children's, fiction and non-fiction books together.

<sup>30</sup> PA Market Report UK 2016.

## 2.3 Exports

One of the most notable characteristics of the UK publishing industry is its success in export markets.

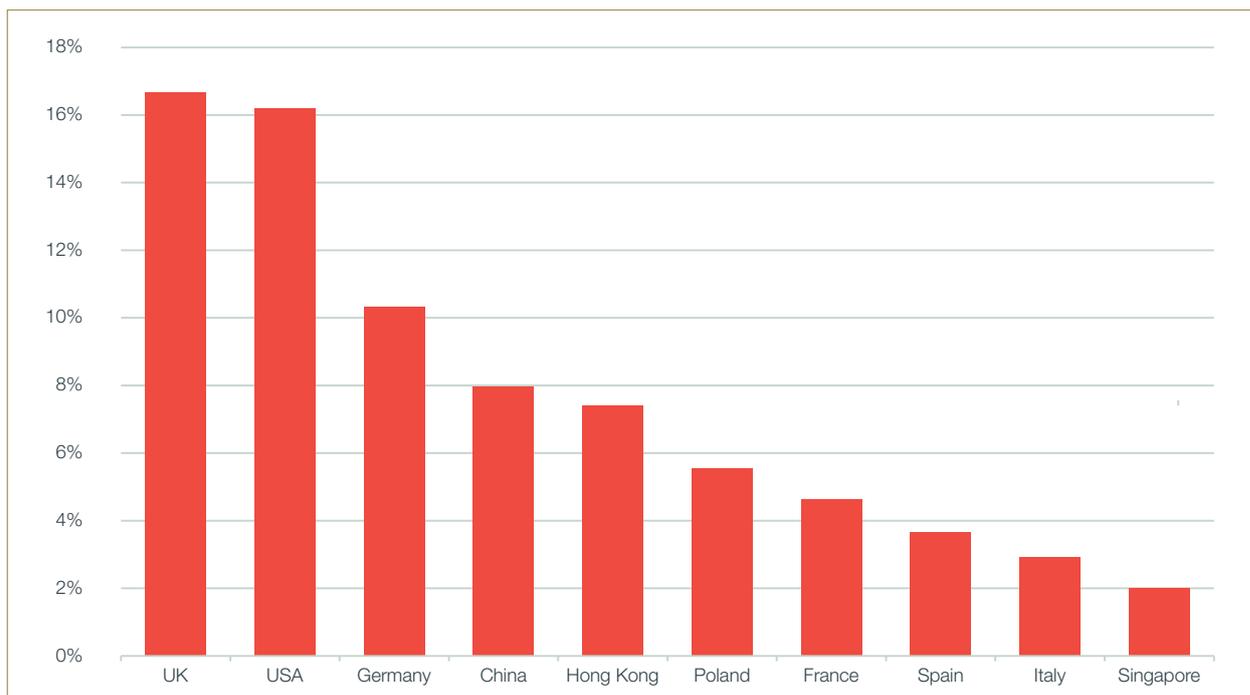
The UK is the largest exporter of physical books in the world. Using data from the United Nations International Trade Statistics Database, **Figure 9** shows that in 2016, the UK had a 17% share of world physical book exports in terms of value, followed by the USA (16%), Germany (10%) and China (8%).



# 17%

The UK is the largest exporter of physical books in the world with a 17% share of world exports.

**Figure 9** Share of global physical book exports (by value), 2016



Source: UN Comtrade Statistics, 2016, Share of physical book exports (by value): 2016

Note: Figures are for commodity code 4901 (Printed reading books, brochures, leaflets). Includes the re-export and re-import of books.

The UK is home to some of the largest and most successful publishing houses in the world. In the 2017 Global Ranking of the Publishing Industry, an annual list of the world's 50 largest publishers by Livres Hebdo/The Bookseller, the five UK-based companies in the top 50 earned about a quarter of the revenue for the entire list.<sup>31</sup>

Overall the UK publishing industry generated £2.9bn in export revenue in 2016.<sup>32</sup> Of this total, £1.5bn came from book sales (including £234m from digital book exports), £1.1bn from journal sales and £329m from rights and coeditions (books and journals combined).<sup>33</sup> In the context of the direct contribution of the publishing industry to the UK's economy, this establishes the baseline flow of exports. However, there can indeed be additional second-order effects from increased trade. As an example of views from government officials, International Trade Secretary Dr Liam Fox MP has recently outlined the ways in which exports can enhance the reputation of British businesses, help them expand, and make them more productive.<sup>34</sup>

<sup>31</sup> The Bookseller, "Trio of UK publishers poised to join top-performing quintet", 08.09.17

<sup>32</sup> PA Publishing Yearbook 2016

<sup>33</sup> See Figure 26 in Annex A.3.1 for a full breakdown of exports.

<sup>34</sup> See <http://brexitcentral.com/supporting-overseas-investment-british-companies-can-bring-vast-benefits-uk/>

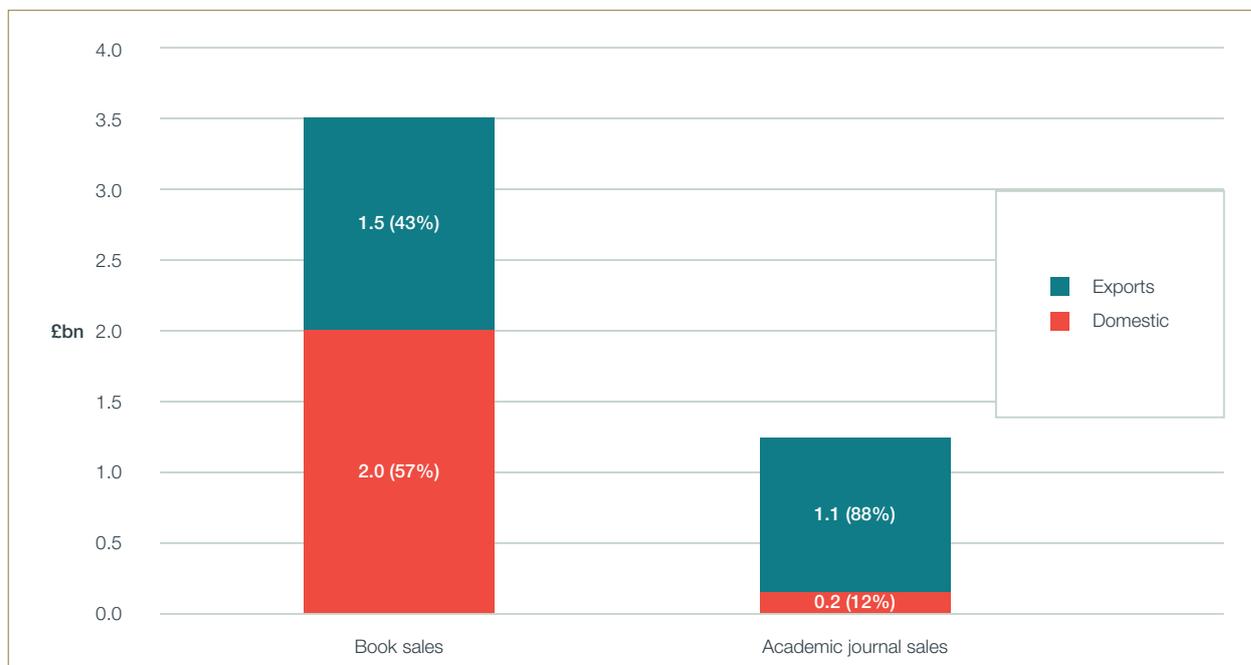
Coming back to direct effects, it is useful to unpick exports by type. Although book exports are larger in absolute terms, academic journal publishers are especially export-focused (**Figure 10**).

Exports account for 43% of book sales income but a very significant 88% of academic journal sales income.<sup>35</sup>

# £2.9bn

The UK book and academic journal publishing industry earned export revenues of £2.9bn in 2016

**Figure 10 Domestic and export revenues for books and academic journals, 2016**



Source: Frontier analysis, PA Publishing Yearbook 2016

Note: Excludes sales of rights and coeditions as the PA Publishing Yearbook does not collect data on domestic sales of rights and coeditions.

The export revenues of the UK publishing industry make an important contribution to UK's trade balance (the difference between exports and imports) which has, overall, been in deficit since 1998. In 2015 the UK recorded a trade deficit of £38.6bn, 2.1% of GDP.<sup>36</sup> In physical books alone, the UK had a trade surplus of £1.1bn in 2016 (and the same in 2015), all else equal reducing the trade deficit by 2.1%.<sup>37 38</sup>

Reliable figures for the UK's trade surplus in digital books, book publishing rights and coeditions or academic journals are not easily obtainable, but export figures and stakeholder interviews suggest all three would also make a significant positive contribution to the UK trade balance.

Digital books represented 16% of total publishing book exports in 2016. Extrapolating the UK's trade surplus in physical books (£1.1bn in 2016) to digital books suggests that the UK's trade surplus in digital books was approximately £200m in 2016. Similarly, for book publishing rights and coeditions, industry stakeholders suggest the UK is one of the few countries to have a positive balance of trade.<sup>39</sup> For academic journals, stakeholders said the UK is a net importer of academic journals from the US but a net exporter to the rest of the world and overall has a trade surplus in academic journals.

<sup>35</sup> In each case excluding rights and coeditions because reliable data on domestic sales rights and coeditions is not available.

<sup>36</sup> National Accounts, Summary of Balance of Payments, The Pink Book

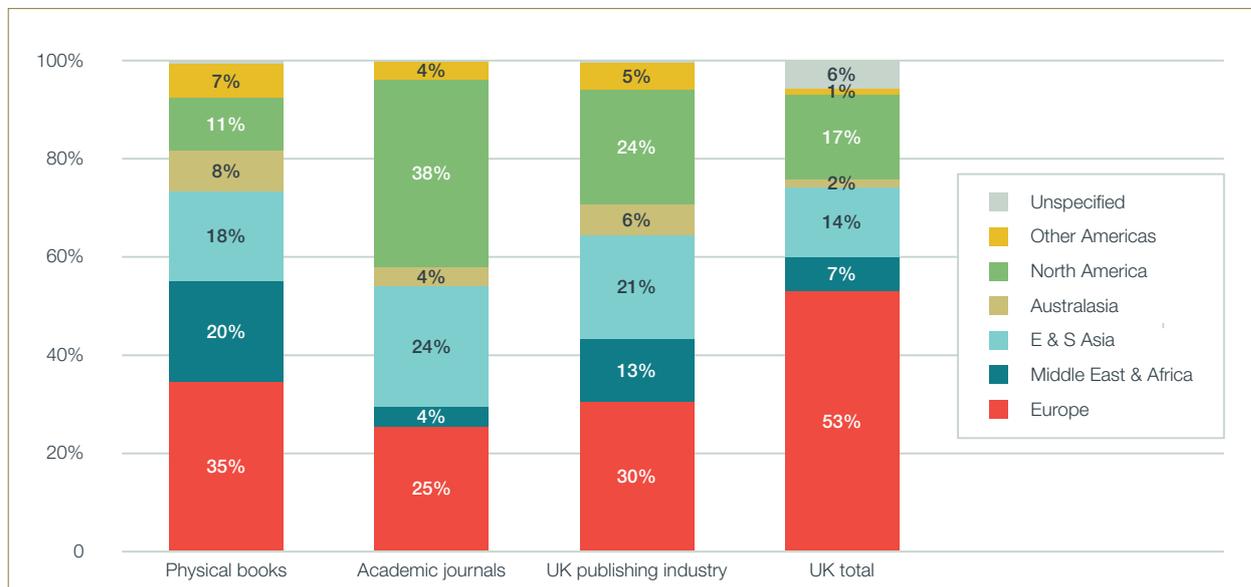
<sup>37</sup> Our figures come from the UN Comtrade Statistics 2016 commodity code 4901: Printed reading books, brochures and leaflets. Using a slightly different definition, HMRC, UK Trade Info give a similar but slightly smaller physical book trade surplus of £0.8bn.

<sup>38</sup> Re-exports are exports of foreign goods in the same state as previously imported; they are to be included in the country exports. The equivalent statement applies for re-imports.

<sup>39</sup> See also the PA Market Report UK 2016.

**Figure 11** gives the destinations of UK publishing exports for physical books, academic journals and the overall UK publishing industry<sup>40</sup> and compares these to overall UK export destinations in 2016. The figure shows that UK publishing export destinations are very diverse. Although Europe (especially for books) and North America (especially for academic journals) are important markets, UK publishing exports go to all corners of the world. For example, 20% of UK physical book exports go to the Middle East and Africa and 24% of UK academic journal exports go to East and South Asia.

**Figure 11** Export destinations by value of exports, 2016



Source: Frontier Analysis, PA Publishing Yearbook 2016, UK National Accounts 2016

Note: UK publishing industry total excludes digital books, rights and coeditions exports due to insufficient data. UK's export destinations from National Accounts table: UK trade in goods top 50 export markets and import sources. Unspecified category is countries outside the top 50 UK export destinations.

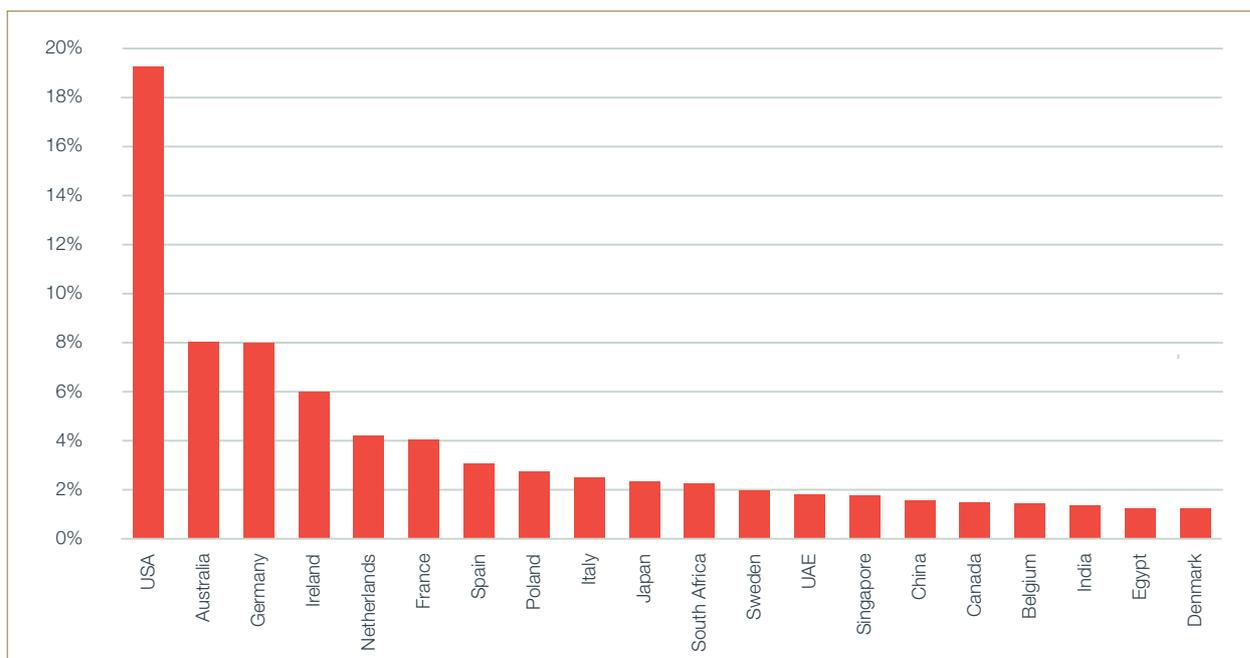
The diversity of UK publishing export destinations compares favourably to the goods export destinations of the UK as a whole. More than half of UK exports go to European economies whereas only 30% of publishing exports do. The UK publishing industry also has a higher proportion of exports to all other regions relative to the overall UK economy.

UK publishing export destinations are also diverse at an individual country level. **Figure 12** shows that in 2016 only 60% of UK physical book exports<sup>41</sup> went to their top 10 export destinations. This is exceptional by international standards: the United States and Germany are the next largest physical book exporters after the UK, but their exports are much more concentrated with 82% of US exports going to their top 10 destinations and 87% for Germany. This diversity of export destinations may suggest the UK publishing export revenues are less volatile than those of publishers in foreign countries.

<sup>40</sup> Excluding rights, coeditions and secondary licensing, for which data on export destinations is not available.

<sup>41</sup> Figure 11 and Figure 12 percentages are not directly comparable because Figure 11 is based on publishers' export revenue whereas Figure 12 is based on book sales.

**Figure 12 UK top 20 physical book export destinations, 2016**

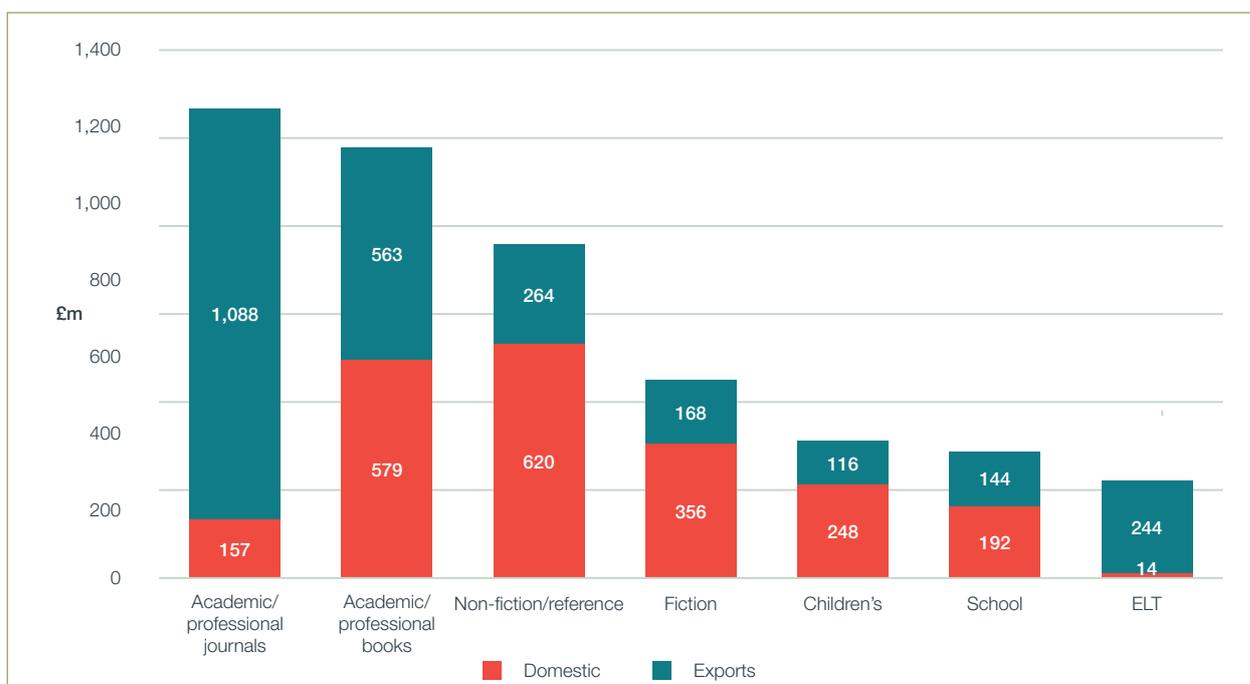


Source: UN Comtrade Statistics, 2016, Share of physical book exports (by value): 2016

Note: Figures are for commodity code 4901 (Printed reading books, brochures, leaflets). Based on the general trade system which means that imports include all goods entering the economic territory of a compiling country and exports include all goods leaving the economic territory of a compiling country.

It is also interesting to consider which categories of publishing are most export-orientated. This is displayed in **Figure 13**, which splits turnover in each category into domestic sales and exports. Two categories are particularly export-focused: academic and professional journal publishing and ELT books. As already noted, 88% of all academic journal sales are exports. But exports are an even higher proportion of sales of ELT books (95%).

**Figure 13 Domestic and export sales by publishing category, 2016**



Source: Frontier analysis, PA Publishing Yearbook 2016

Note: Excludes rights, coeditions and secondary licensing income as the PA Publishing Yearbook does not collect data on domestic sales of these.

Industry members suggest that the UK publishing industry's strong global standing can be attributed to the global profile of the English language, the reputation of the UK industry, the legacy of historical connections and the strength of local copyright law.<sup>42</sup>

## 2.4 Investment

Investment plays a critical economic role in promoting innovation and long-run growth. We estimate that the UK publishing industry invested £545m in 2016. This estimate combines investment in both **intangible** assets and in **physical** assets.

First, drawing on and updating the work of Goodridge (2013), we estimate that UK publishing investment in a key intangible asset, **artistic originals**, was £377m in 2016.<sup>43</sup> Examples of investment in artistic originals undertaken by the publishing industry include direct investments in advances to authors and investment own-account writing and editing by publishing houses.

Second, using *PA Publishing Yearbook* turnover and applying an investment/turnover ratio from the Annual Business Survey, we estimate a further £168m (£108m in book publishing and £60m in academic journal publishing) was invested in 2016 by the publishing industry in acquiring, improving, repairing or upgrading fixed assets such as property, land, machinery and equipment (including computer software).<sup>44</sup>

## 2.5 Employment

In 2015, our best estimate is that headcount direct employment in the UK publishing industry (excluding freelancers) stood at 29,000 jobs: 26,100 (90%) in book publishing and 2,900 (10%) in academic journal publishing.

Our estimate is based on data from the Business Register and Employment Survey (BRES), regarded as the best official source of employment data at a detailed industrial level. BRES is sufficiently detailed to divide up large companies active in both books and academic journals. For example, a publisher with 1,000 employees might be divided into 600 book publishing employees and 400 academic journal publishing employees.<sup>45</sup>

# 29,000

The UK book and academic journal publishing industry directly employed 29,000 people in 2015

Although BRES provides a good estimate of employment at most organisations within publishing, its estimates cover only UK businesses registered for Value Added Tax and/or Pay as You Earn. Therefore BRES underestimates employment relating to publishing, by excluding thousands of additional freelancers in roles such as copy editing, proofreading, marketing and providing training for authors (such as media training).

<sup>42</sup> Learnmount (2005) suggests that the international orientation of the UK publishing industry may also be associated with its long-established and pro-active role in the negotiation of international copyright protection, perhaps because it gives UK firms greater confidence in producing titles for sale overseas. For example, the UK book publishing industry initiated the Berne Convention for the Protection of Literary Artistic Works in 1886, which the US only joined in 1989 and is still in operation today. Some industry members said it was important for the UK to continue to lead in developing copyright law once it exits from the EU.

<sup>43</sup> Investment in artistic originals is a form of investment in intellectual property, and is a component of the expenditure measure of gross domestic product (GDP). Our estimates of this investment are based on Goodridge (2013). Our figures are lower than Goodridge's because his analysis includes investment by authors. Authors' share of publishing investment in artistic originals is approximately 30% (correspondence with Goodridge dated 25.05.17). Further detail is provided in Annex A. National Accounts data also provide an estimate of investment in artistic originals but this is at a much higher level of aggregation that includes all *Information and Communications* enterprises (Section J), at £4.7bn.

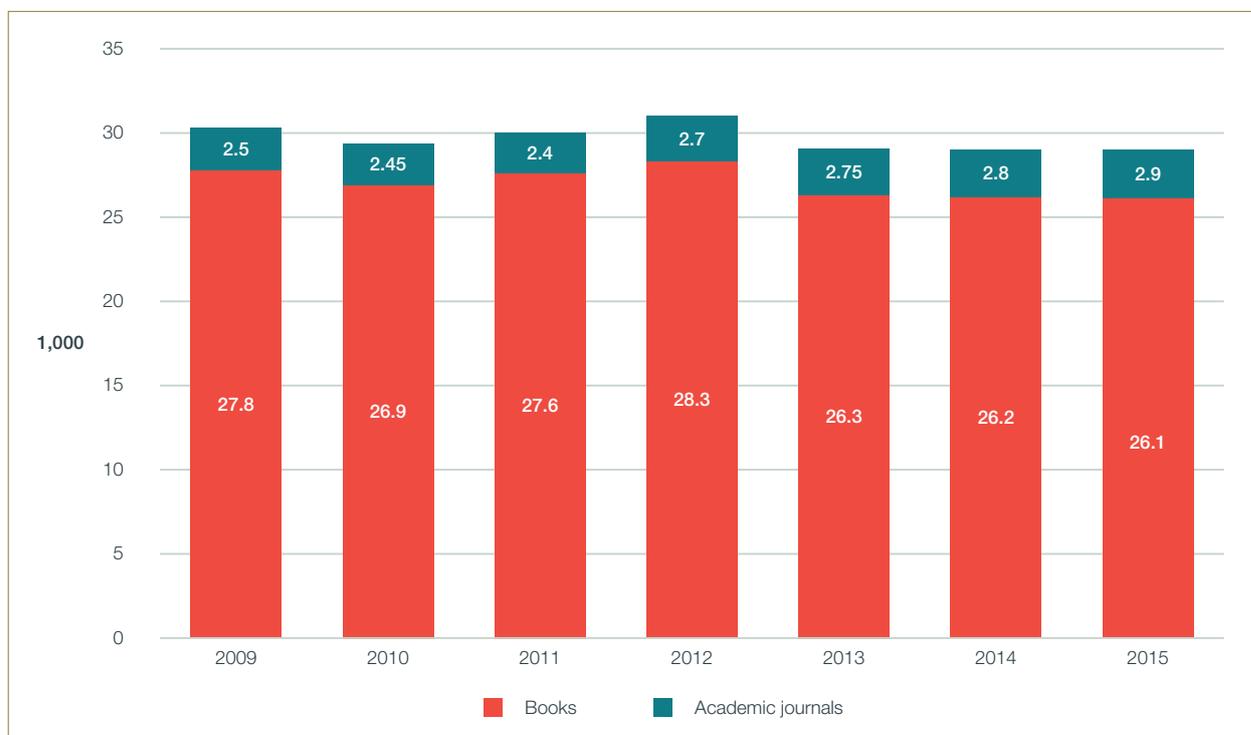
<sup>44</sup> More information is provided in Annex A.3.3.

<sup>45</sup> Additional evidence on employment in academic journals is consistent with our estimate. The last Serial Publishers Executive survey of employment conducted in 2013 reported employment of 1,944 based on nine respondents, including four of the largest five academic journal publishers. And our interviews with industry stakeholders are large publishers provided further support for our estimates.

In addition to the workers employed in the UK, the publishing industry also employs UK nationals abroad. For example, one large academic publisher has previously stated that UK nationals made up about 15% of its staff in the EU.<sup>46</sup>

As **Figure 14** illustrates, since 2009 UK publishing employment has remained fairly stable. This has not prevented significant growth in GVA, suggesting significant growth in labour productivity. We explore this further in **Section 2.6**.

**Figure 14 Publishing employment headcount, 2009–2015**



Source: Frontier analysis, BRES.

Note: The figures for 2010 and 2014 (for academic journals) and 2011 and 2014 for books have been altered following correspondence with BRES (10.05.17 and 31.05.17). This is to remove the effects of businesses that temporarily changed SIC codes and thus created misleading volatility in the time series. In these years we assume a constant rate of change. For example, we assume employment of 2,450 in academic journals in 2010 as this is the midpoint between 2,500 in 2009 and 2,400 in 2011.

Publishing jobs also tend to be high quality. 85% of book publishing jobs are full-time and only 13% are part-time.<sup>47</sup> Across the whole economy, by contrast, 26% of jobs are part-time.<sup>48</sup>

Given their significant volume of exports, some industry stakeholders reflected on how publishers require people to work in the sale of books, journals and rights to foreign institutions. Given the importance of language skills in these roles, they are often filled with foreign workers.

Analysis by Nesta of the Annual Population Survey, and using a wider definition of publishing, found a figure for EU nationals in publishing of 10% of the workforce and 4% for nationals from the rest of the world.

Academic journal publishers have a much higher proportion of foreign workers. A multinational publisher of journals told that they valued the ability to move talent across their international offices, including bringing foreign staff to the UK. Based on our interviews, we estimate 15–18% of academic journal employees in the UK are non-UK EU nationals with a further 2–6% from the rest of the world.

<sup>46</sup> PA Market Report UK 2016.

<sup>47</sup> A further 2% are working proprietors (sole traders, sole proprietors, partners and directors).

<sup>48</sup> Labour Force Survey, 2015.

## 2.6 Labour productivity

Productivity is the primary ingredient of long-term, sustained economic growth and prosperity. Productivity describes how efficient the economy is – how well it produces output from a variety of inputs.

Ideally, productivity is calculated as the measurable change in output after adjustments have been made for the measured change in inputs: labour, capital, and intermediate goods and services. This approach is referred to as *total factor productivity* (TFP). But the data requirement for accurate TFP measures can make them difficult to obtain. A second-best approach, *labour productivity*, expresses the level of output as a ratio to labour inputs (employees or hours worked). Given the difficulties of obtaining accurate TFP measures, the latter approach is presented here.

Our measure of labour productivity is GVA per worker, since accurate data on hours worked by sector are hard to obtain. To ensure that GVA and employment are measured on a consistent basis and comparisons with other sections of the economy are like-for-like we use a single data source, the Annual Business Survey, for all GVA and employment estimates.

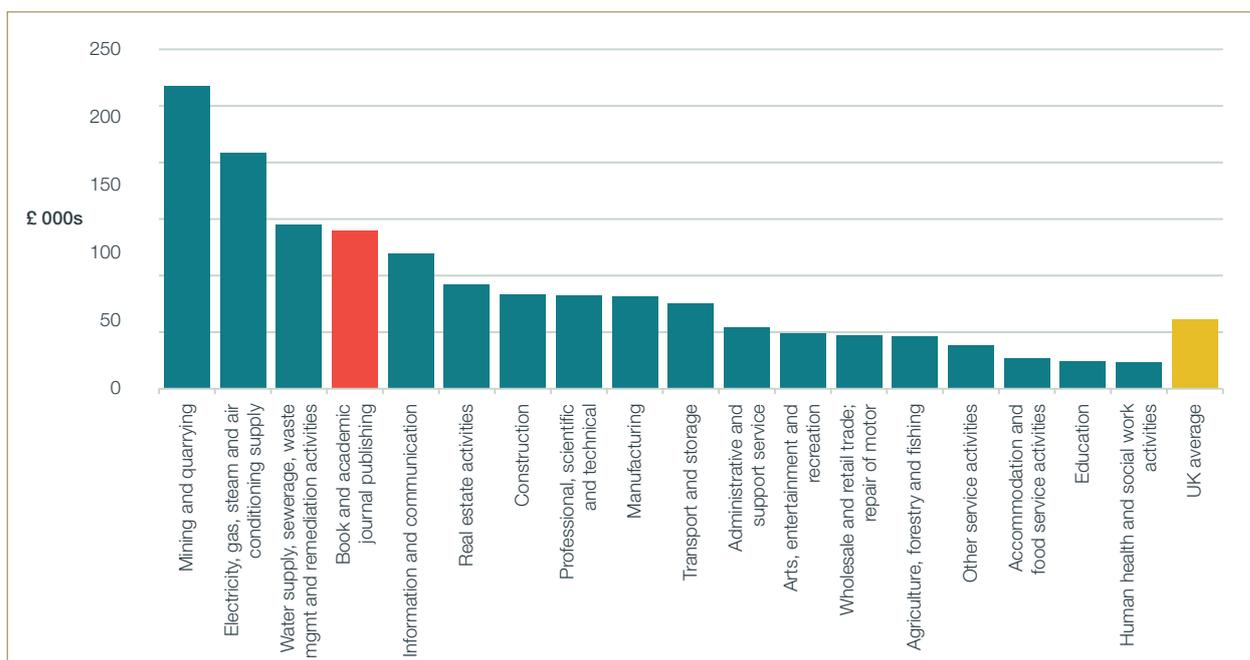
# £112,800

GVA per worker in book and academic journal publishing, more than twice the UK average of £49,100.

We estimate GVA per worker in the publishing industry at £112,800.<sup>49</sup> **Figure 15** provides some context by comparing book publishing labour productivity with labour productivity in other sections of the economy.

GVA per worker in book and academic publishing is more than twice the UK average (£49,100). This is also 15% higher than GVA per worker in the overall information and communication sector (£96,100) which, as well as book and academic journal publishing, also includes newspaper publishing; programming and broadcasting activities; telecommunications; computer programming, consultancy and related activities; and information services.

**Figure 15** GVA per worker, by sector, 2015



Source: Annual Business Survey

Note: Chart shows publishing industry alongside all two-digit SIC codes with data available in ABS. All GVA and employment figures are from ABS to ensure comparability. This means the GVA per worker used here differs slightly from other figures in this report. ABS rounds employment figures to nearest thousand which means there is a large confidence interval around the estimate for industries with relatively low employment.

<sup>49</sup> As noted in the previous paragraph we use ABS for comparability with sections and industries. But the GVA per worker figure from ABS is very similar to a GVA per worker figure based on our separate GVA and employment estimates above (£103,000 per worker compared to £112,800 per worker).

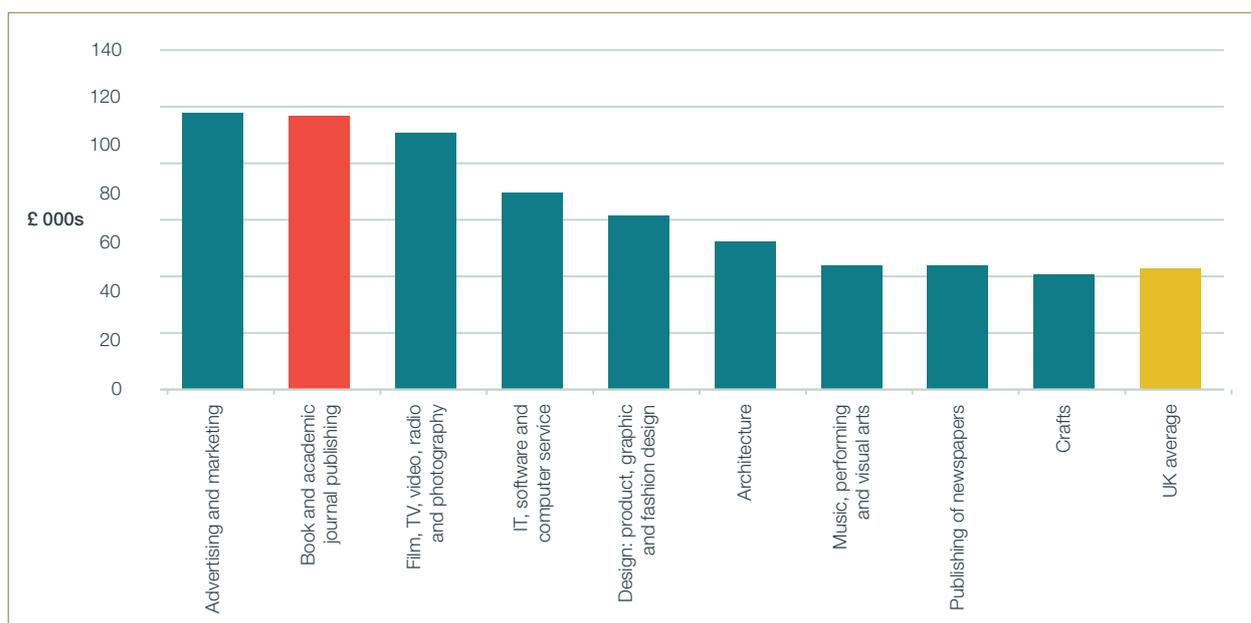
**Figure 16** makes a similar comparison but this time relative to other parts of creative industries. All the creative industries displayed, except for crafts, have higher than average labour productivity and once again, both the book publishing workforce and academic journal publishing workforce perform relatively well, with higher productivity than newspaper publishing (£51,100) and IT software and computer services (£81,400).

**Figure 17** shows the high productivity of the UK publishing industry’s workforce is reflected in average earnings. Mean annual income for workers in UK book publishing was £34,900 in 2016, 23% higher than the UK average.<sup>50</sup>

The high GVA per worker in publishing may partly reflect:

- the industry’s relatively high proportion of full-time employees;
- publishing’s high levels of investment; and
- the skills of the publishing workforce: according to the *bookcareers.com Salary Survey 2013*, over 95% of the publishing workforce has at least an undergraduate degree.<sup>51</sup>

**Figure 16 Creative industries comparison GVA per worker, 2015**



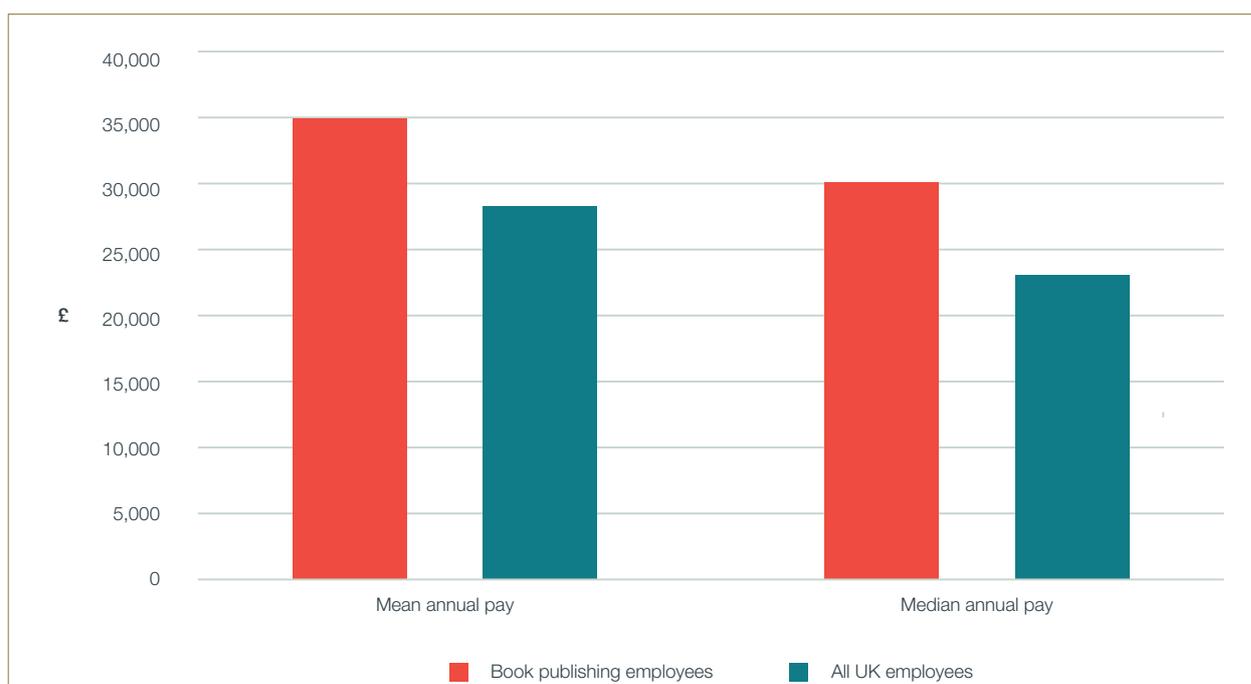
Source: Annual Business Survey

Note: Definitions of creative industries based on SIC codes from ABS only. In cases where employment or GVA figures are not available in ABS for 2015, we use the most recent available year. ABS rounds employment figures to nearest thousand which means there is a large confidence interval around the estimate for industries with relatively low employment.

<sup>50</sup> Equivalent figures for journal publishing were not available in the underlying data source, the Annual Survey of Hours and Earnings (ASHE).

<sup>51</sup> This survey was however conducted back in 2013 and since then the book publishing industry has conducted a number of initiatives emphasising that a degree is not a requirement for a career in publishing. For example, the PA’s Work in Publishing campaign aimed to spread the message that publishing as a career was open to all.

**Figure 17 Gross average annual pay, 2016**



Source: *Annual Survey of Hours and Earnings*

Note: All figures come directly from Table 16.7a in ASHE. ASHE analyses for annual earnings relate to employees on adult rates of pay who have been in the same job for more than 1 year. ASHE does not cover the self-employed or employees not paid during the reference period. Annual gross pay includes: pay before deductions for PAYE, National Insurance, pension schemes and voluntary deductions. It includes basic, overtime, shift premium, productivity performance and bonus or incentive pay. It excludes any payments for expenses or previous employment.

An alternative measure of the productivity of the UK book publishing industry is in terms of new titles and new editions.<sup>52</sup> By this measure of publishing productivity, the UK book publishing industry is a world leader. Estimates for 2014 suggest the US book publishing industry produced 335,000 new titles and new editions, with China on 448,000 and the UK on 220,000, well ahead of the next tier of Japan, Germany and Russia, and further ahead still of France, Italy and Spain. Adjusted for population size, the UK produces by far the most new titles and new editions in the world with over 2,900 per million as against between 1,000 and 1,500 for the other large developed markets.

## 2.7 Number of enterprises

Estimates of the number of UK publishing enterprises come from official data.<sup>53</sup> Unfortunately, official sources tend to combine academic journals with consumer and business journals (magazines). The exception is the Annual Business Survey which suggests that in 2014 there were 172 academic publishing enterprises. Industry stakeholders confirmed this was a plausible estimate. However, the ABS does not analyse the regional and size distributions of these enterprises, so the remainder of this section focuses on book publishing enterprises.

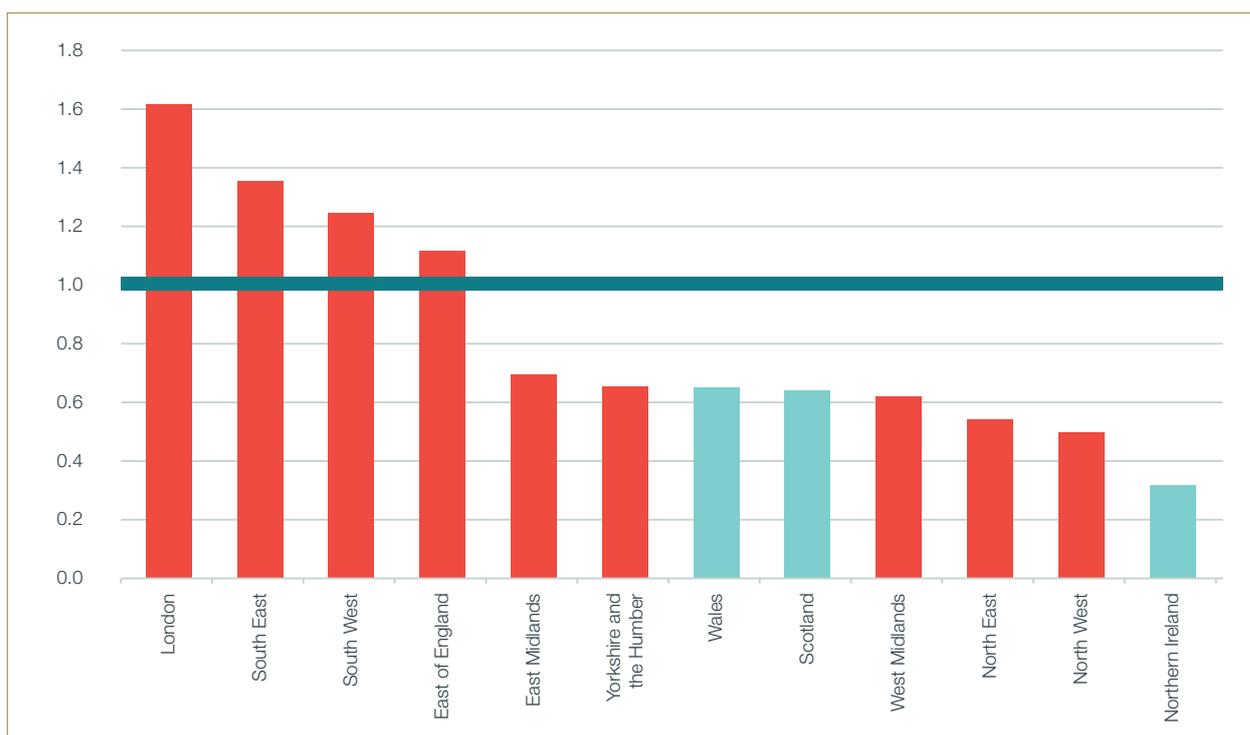
<sup>52</sup> PA Market Report UK 2016.

<sup>53</sup> Broadly an enterprise lines up with a business, so the location of enterprises is based on the location of head offices. An enterprise reflects a 'unit' (based on PAYE and VAT records) that has some autonomy in decision-making; a single business can have more than one enterprise where these are run as separate entities. Different offices within an enterprise (e.g. a local division of a UK-wide publisher headquartered in London) are known as *local units* or *workplaces*; the figures here are at the enterprise level.

According to the ONS, there were 2,255 UK book publishing enterprises registered with HM Revenue and Customs for VAT in 2016 (the compulsory VAT threshold for registration is £82,000 sales revenue).<sup>54</sup> We note that potentially thousands of other small online and individual publishers may be below this threshold: Nielsen BookData, which issues ISBNs, has more than 40,000 registered imprints and individual users. Many publish online without ISBNs.

Book publishing enterprises are present in all regions of the UK. London (29%) and the South East (20%) are the two most popular regions for book publishing enterprises.<sup>55</sup> Stakeholders also told us that London and the South East are home to the UK headquarters of most of the large UK publishers. This regional concentration also holds when adjusting for total economic activity in the region (see **Figure 18**). Overall, though, London and the South East still account for less than half of all publishing enterprises (but note these publishers are likely to be larger, in terms of revenue, value added and employment, than publishers in other regions of the UK).

**Figure 18 Book publishing locations relative to regional economic activity, 2016**



Source: UK Business: Activity, Size and Location, 2016

Note: Data for SIC07: 5811: Book publishing. Entity type is "Enterprise". Values equal to 1.0 indicate publishing regional concentration equal to the UK average; values greater than 1.0 indicate above average concentration; those with less than 1.0 are below average.

**Figure 19** divides up these 2,255 book publishing enterprises by size (in terms of employment) and compares enterprise size in book publishing to the UK average across all industries. Very small (four employees or fewer) and very large (100+ employees) enterprises are both overrepresented in book publishing.

These findings make book publishing an exception amongst the UK creative industries. Previous research<sup>56</sup> has shown that the creative industries are populated by a disproportionately long "tail" of small firms compared with the rest of the economy and as a result, have a lower percentage of large enterprises. While book publishing shares the long tail of small enterprises, it has almost twice as many large firms compared with the UK average (1.6% vs. 0.9%).

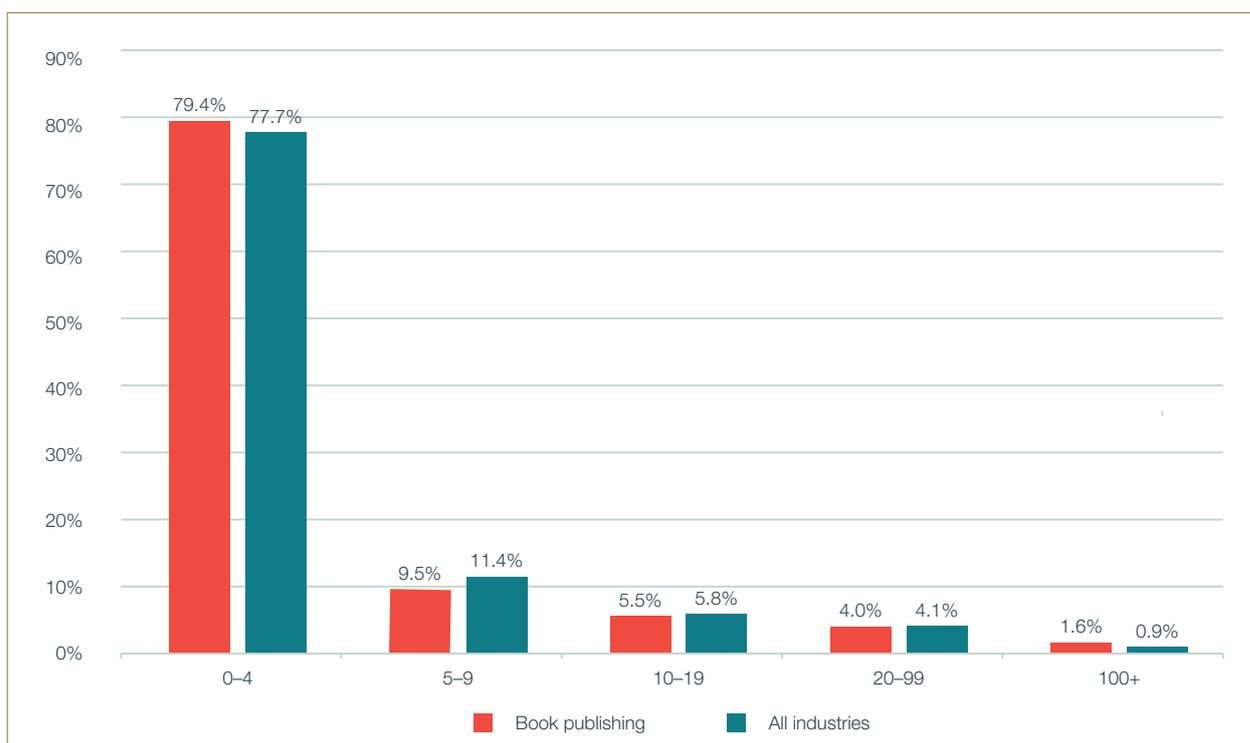
<sup>54</sup> UK Business: Activity, Size and Location, 2016. The figure is produced from an extract taken from the Inter-Departmental Business Register (IDBR) recording the position of units as at 11 March 2016. This represents the businesses registered with HM Revenue and Customs (HMRC) for VAT and/or Pay As You Earn (PAYE).

<sup>55</sup> UK Business: Activity, Size and Location, 2016. Data for SIC07: 5811: Book publishing. Entity type is "Enterprise".

<sup>56</sup> Frontier Economics, *Absorptive capacity boosting productivity in the creative industries*, July 2016.

Given that productivity typically increases with firm size, this may be another contributing factor to the relatively high average labour productivity in the book publishing industry (see **Section 2.6**).

**Figure 19 Book publishing enterprises by number of employees, 2016**



Source: *UK Business: Activity, Size and Location, 2016*

Note: *Data for SIC07: 5811: Book publishing. Entity type is "Enterprise".*

### 3 INDIRECT CONTRIBUTION

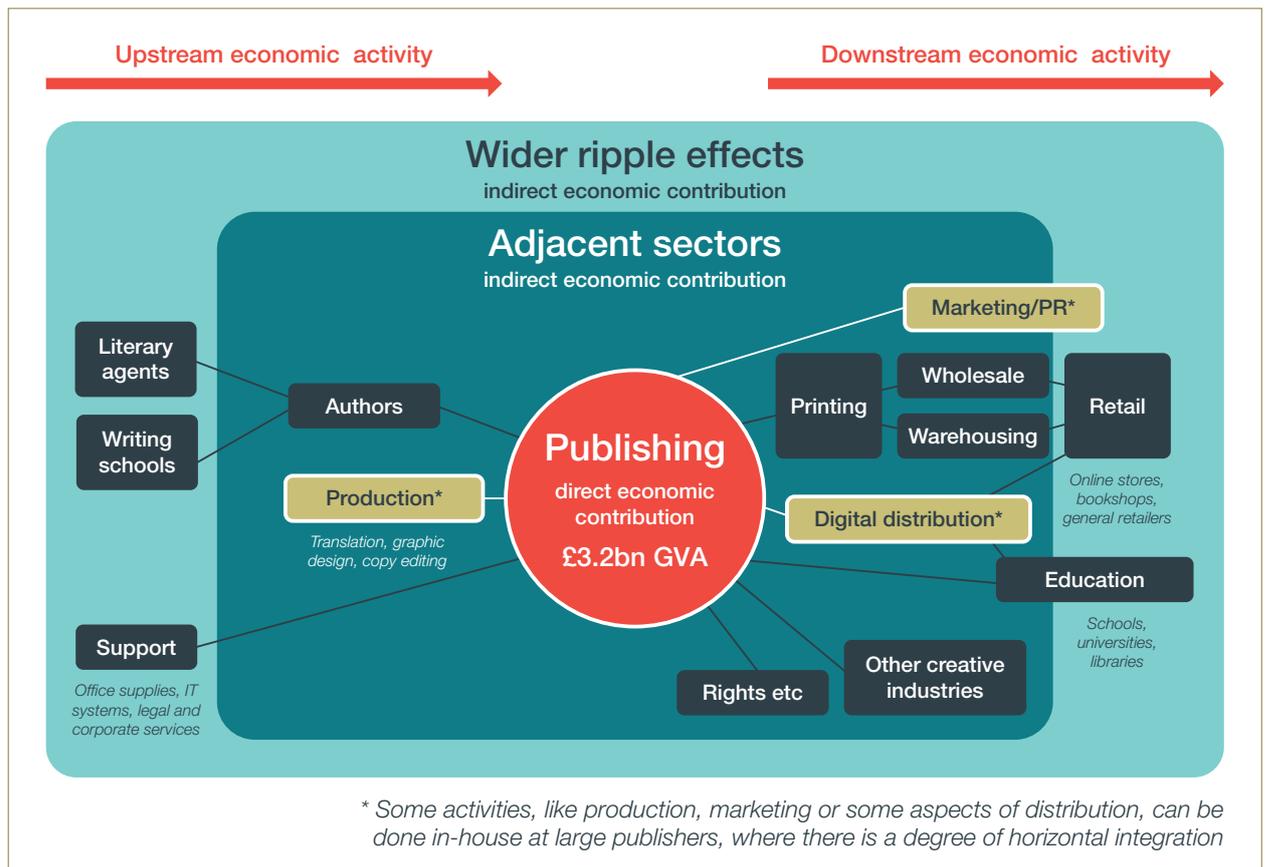
The UK publishing industry also contributes to the economy through its indirect effects on “adjacent industries”. These can be sectors ‘upstream’, which provide inputs into publishing; or sectors ‘downstream’, which take publishing outputs and bring them to their end users or consumers. Some of these (like the printing industry) depend quite heavily on publishing: if publishers did not exist, the economic activity of printing firms would largely be lost.<sup>57</sup> Other sectors, like graphic design, have strong relationship with publishing but do not necessarily depend on them to the same extent.

While it is difficult to assign precise monetary values to these links, it is clear that the economic contribution of publishing extends beyond its direct effects and is at least somewhat expressed in other sectors. This section provides an overview of these relationships, and where possible provides evidence of their magnitude in economic terms.

#### 3.1 Book publishing

Figure 20 illustrates the main components of the value chain for book publishing, from content creation all the way to the end consumer.<sup>58</sup> This is a stylised and somewhat simplified diagram, but it contains the main adjacent industries.

Figure 20 Overview of the book publishing value chain



Source: Frontier Economics

57 At least in the short term, before workers and investors can shift over time to different activities.

58 When we talk about ‘value chains’, we mean all components that lead to the creation of a product or service. From the point of view of the publishing industry, this can be split into a ‘supply chain’ (the left side of the chart), consisting of the inputs that go into publishing and a ‘distribution chain’ (the right side of the chart), which includes the ways in which the outputs of publishing reach their intended audiences.

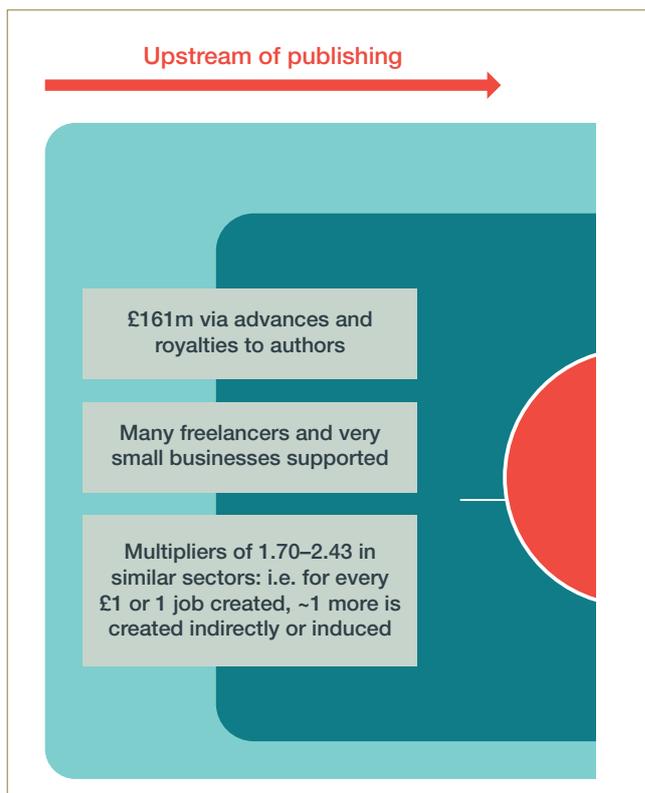
This diagram covers both:

- the immediately adjacent sectors, such as production on the left and printing on the right, which have strong ties to publishing; and
- a few other sectors that have a relationship with the publishing industry, but of a more indirect or 'two-steps-removed' form.

As noted, some book publishers are 'vertically integrated' and carry out some supply chain functions themselves – production, distribution and marketing being the key examples. Other publishers will rely on external companies to perform these functions.

### 3.1.1 Upstream activities

Figure 21 Key indirect contributions of publishing: upstream



Source: Frontier Economics

## Authors

Much of the value of books arises from the content they contain, which is produced by authors and other content creators. Publishers buy the rights to distribute this content in print or electronic form, and in return compensate authors in advance for their work, provide editorial and design services, distribute and sell the works, engage in marketing and PR, and pay authors royalties when their books are sold. The relationship with authors is naturally a very close one, as authors and publishers closely depend on each other.

Among other things, publishers help authors by taking risk away from them through the system of advance payments. Except for already well-known authors, there is usually a large degree of uncertainty with respect to the future success of your work. While publishers are rarely able to predict in advance which works will receive critical acclaim or commercial popularity, they invest in the creative process upfront by paying advances to many authors, and not all will be successful (or indeed will even complete their works). One senior executive of a publishing house described this as an exercise in gambling – you don't know which horses will do well, so you bet on several of them, in the hopes that one or two of them will succeed. Many books won't recover their costs, but those that do can pay for the others. If authors had to bear the brunt of this risk themselves, many would presumably not write to begin with.<sup>59</sup> This means that from an economic standpoint, advances are a form of investment in content creation by publishers.

While the biggest contribution of publishing to authors is arguably this risk-bearing itself, it is difficult to quantify. However, there have been attempts to measure the direct flows of value to authors from intangible investment by publishers and others. In Goodridge's (2013) approach (as described in **Section 2.4**), this investment is made up of:

- advances to authors;
- royalty payments;
- revenue from secondary rights; and
- the cost of own-account writing and editing by publishers.

We have received an estimate of how that total value ends up being split between publishers and authors.<sup>60</sup> From these numbers, and extrapolating over time based on ONS intangible investment figures, we estimate that authors received a total of £161m in 2016 in intangible investment, in the form of advance payments and royalties.

## Production

Naturally, creating the content is just one part of the process. After a piece of work is written it goes through a lengthy process of production, involving proofreading, editing, typesetting, illustration, translation, recording and sound-mixing (in the case of audiobooks), cover design, and (in the case of non-fiction books), fact-checking and referencing. This work is partially carried out by publishing houses, and partially outsourced to independent companies, many of them freelancers or very small businesses located around the UK. It is difficult to obtain robust estimates of the size of these external production inputs, but it is clear they are an important part of publishing's indirect economic contribution.

There are also other inputs which support publishing but are not tied to it directly. These fall into two major categories:

- sectors that interact directly with authors, such as literary agents and writing schools; and
- sectors that provide broad support services to publishers, including office supplies, IT support and legal and corporate services.

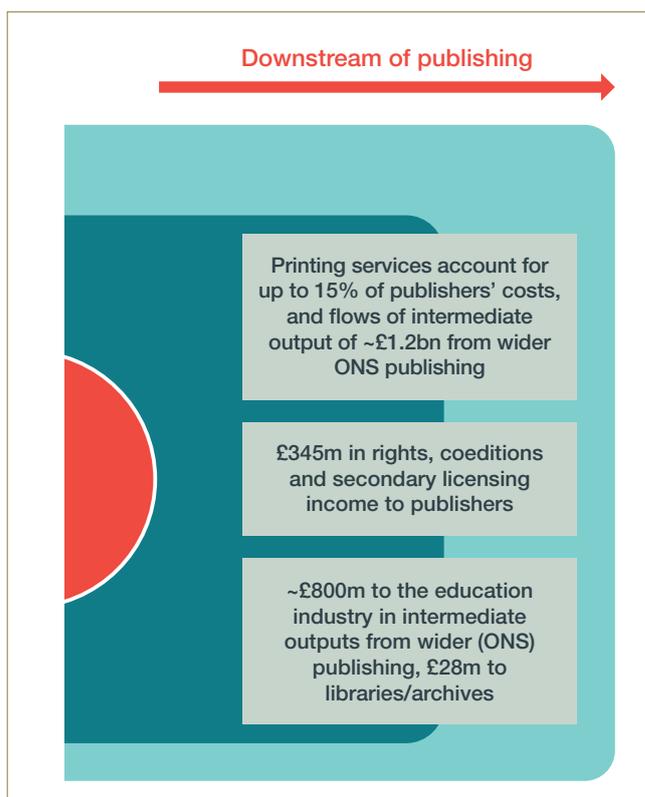
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<sup>59</sup> This is changing somewhat with the advent of self-publishing, the process by which independent authors-to-be post their e-books online for a small percentage of the income if they get sold. However, this is still quite a young industry and it is not clear how it will shape as it matures.

<sup>60</sup> Via correspondence dated 24.05.17.

## 3.1.2 Downstream activities

Figure 22 Key indirect contributions of publishing: downstream



Source: Frontier Economics

### Overview

A number of stakeholders reflected that, historically, the distribution chain of publishing was very linear – publishers would print books, wholesalers would buy them and distribute to bookshops, and consumers would buy them there.

In recent years many more channels have emerged. Some books are now sold direct from the publishers, and many are sold through supermarkets, other retailers, and online. Recent years have also seen a rise in the sales of non-print formats like e-books (which accounted for 15% of book sales in the UK in 2015/16) and audiobooks (which accounted for less than 1%).<sup>61</sup> Books are easier to find than ever, and there are many more ways to consume them, but they are still mostly found, edited, produced and disseminated by the publishing industry.

### Booksellers

Despite the rise of online distribution of books in the UK (which accounted for 45% of print, e-book/app and audiobook sales in 2016), 38% of books are still sold through bookshops.<sup>62</sup> According to ONS data,<sup>63</sup> in 2015 there were upwards of 1,000 bookstores in the UK, accounting for £1.088bn in turnover, £279m in GVA, and employing 12,000 people.

<sup>61</sup> PA Publishing Yearbook 2016.

<sup>62</sup> The remaining books are sold through other retailers. Nielsen Book Research, via the PA.

<sup>63</sup> ABS 2015, SIC code 47.61: "Retail sale of books in specialised stores".

## Printing

Printing is a substantial expense for most publishers. While there are no aggregate industry statistics, stakeholders we spoke with suggested that the order of magnitude for the share of costs related to printing was around 15-20% of overall costs.<sup>64</sup> On the other side of that relationship, books and academic journals have accounted for 16% of the final product of the printing industry in 2016, suggesting a large degree of co-dependence.<sup>65</sup> The printing industry in the UK is large and thriving – the UK is the fifth-largest producer of printed materials in the world, the industry employs around 116,000 people and accounts for £5.8bn in GVA, according to the BPIF.<sup>66</sup> Printing is also spread out across the UK's regions to a large extent: 89% of its employment and 85% of its companies are based outside London, and 76% of employment (70% of companies) is outside of London and the South East. As a wider ripple effect from this relationship, the printing industry in turn supports some of the economic activity of the paper industry.

## Other ties

Other than printing, the wholesale, distribution and education industries are the main direct beneficiaries from the outputs of publishing. The direct sales numbers illustrate how strong the links are between publishing and education – **Figure 8** in **Section 2.2** shows that schools, English Language Training, academic and professional books, and academic journals together accounted for more than 60% of the turnover of the UK publishing industry.<sup>67</sup>

# 62%

Share of publishing income from academic, professional and educational sources

Input-output tables (discussed in **Annex B**) corroborate the strength of this link, suggesting that a substantial share of the intermediate outputs (those not sold to end consumers) of the wider publishing industry as defined by the ONS goes into the education sector – in the order of £800m per year, in addition to £28m to libraries, museums and archives alone.<sup>68</sup>

Publishers also take an active part in engaging consumers through various events, fairs, festivals and prizes, helping shape the demand for books and contributing to wider indirect economic benefits.<sup>69</sup> The London Book Fair (LBF) is the most important such event, bringing together upwards of 25,000 attendees from 120 countries (see [londonbookfair.co.uk](http://londonbookfair.co.uk)). While fundamentally a trade event, the international nature of the LBF helps enhance the UK's global standing in the publishing industry and consolidate its ties, export agreements and rights business. On the domestic stage, publishers help organise hundreds of literary festivals (see [literaryfestivals.co.uk](http://literaryfestivals.co.uk)) which induce economic activity in themselves, and highlight the fact that the industry not only publishes books but also helps involve the end consumers and shape the way in which they engage with books.

Similarly, academic publishers take part in organising and promoting academic conferences, which not only generate economic activity but enhance the other functions of the academic sector in terms of knowledge sharing, collaboration and creation of new ideas.

<sup>64</sup> It is difficult to assess this from financial statements, as they are generally not detailed down to that level; for the larger publishers, they are only published as part of global group accounts.

<sup>65</sup> Source: Correspondence with British Printing Industries Federation (BPIF).

<sup>66</sup> See <http://www.britishprint.com/industry-involvement/research/facts-and-figures>

<sup>67</sup> Since this figure includes professional books and journals it may be an overestimate of the figure as applied to our definition of publishing.

<sup>68</sup> Including publishing on newspapers, magazines and software.

<sup>69</sup> See Publishers Association Market Report UK 2016.

Finally, publishing plays a central role in content discovery for film, TV and theatre, and is one of the leading sources for material in these industries. While often not involved in the adaptation process directly, publishers add value through a variety of indirect channels. We explore this in depth in a companion report,<sup>70</sup> but the main findings are outlined below.

- In producing a steady stream of works of fiction and non-fiction, publishers act as a repository for stories to be discovered by producers, agents and scouts looking for ideas.
- Publishers act as a filter for quality storytelling and help polish and edit manuscripts into fully formed, engaging stories.
- Publishers invest in authors at the start of their careers and sustain long-term relationships with them, allowing them to develop work that may mature to adaptations many years down the line.
- Publishers keep old works of literature in circulation, helping sustain a library of potential source material.
- Publishers alleviate some of the inherent risk of a screen or stage production by taking the risk on themselves at the publication stage, allowing producers to choose stories which have already shown the ability to engage audiences.
- The literary heft and prestige offered by published works help attract top talent (directors, screenwriters, actors and others) to film and stage adaptations.
- The readership and public profile of a book can make it easier to market an adaptation, using the original's brand as a starting point.
- The direct involvement of the author can sometimes improve the quality of adaptations, due to their deep understanding of the story and characters.

The existing evidence and data seem to suggest that films based on published works do somewhat better than original screenplays, both in terms of commercial and critical success. The evidence regarding TV and stage adaptations is inconclusive in this respect.

Finally, the book and film or stage worlds clearly have a reciprocal relationship, wherein a successful adaptation often has spill-over effects and gives a substantial boost to the sales of the original book. This can lead to synergies between the industries – a book spawning a screen or stage version, leading to increased sales of the book, increasing an author's likelihood of writing more stories, which could then potentially be adapted themselves. This is only part of the story of publishing's overall economic contribution, but is an important one.

### 3.1.3 Opportunities and challenges

Recent years have seen massive changes in the way books are purchased and consumed, with the rise of online book sales fuelled by Amazon and with the advent of e-books. Bookshops have seen consolidation and change as well, as the sector has shifted to large chains such as Waterstones. For instance, 44% of independent bookshops in the UK have closed between 2005 and 2017.<sup>71</sup>

However they are distributed and delivered, authors still need to be supported, and books still need to be curated, produced and published, and the role of publishers in that process has not changed significantly.<sup>72</sup>

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<sup>70</sup> See companion report, 2018.

<sup>71</sup> Source: The Bookseller, see <http://www.thebookseller.com/news/indie-bookshop-presence-uk-contracts-11th-consecutive-year-499776>

<sup>72</sup> Self-publishing is still a very small share of the market, and is substantial only in e-books rather than physical books.

Stakeholder interviews suggest that despite the pressures from Amazon and others (mostly around price), the digital era also offers plenty of opportunities for new business models, some talking about a “revolution” in formats, customer engagement and production quality. Several publishing houses are engaged in improving their offer in specialised niches, be it limited editions, high-quality productions of lifestyle or photography books, or tailor-made educational literature. Industry executives also talk of print “making a comeback”, with consumers placing high value on the bookshop’s role in introducing readers to new content. Print remains particularly important in the children’s market.

Digital printing also provides opportunity for innovation in publishing, especially with academic and professional literature. Traditional printing technology (offset lithography, or “litho” printing) entails producing lithographic plates of the desired printing material, and this requires a relatively large upfront cost and can only be commercially viable for large amounts of copies per printing run or edition. With digital printing, publishers can print and sell just hundreds, or even dozens, of books without incurring a loss, allowing for much greater flexibility to produce very highly-specialised, niche material for professionals and academics. Stakeholder interviews point to the emergence of even more flexible models, wherein a reader can, for example, order a custom-made copy of a book, selecting only the chapters he or she needs.

Stakeholder interviews suggested that Brexit could have a potentially significant impact on the publishing industry. Some of these are outlined below.

- **Currency fluctuations:** as publishing is to a large degree an export business (see **Section 2.3**), the pound’s recent decline has had a positive impact on publishing sales, with the largest benefits accruing to the most export-intensive sectors of publishing such as academic journals and ELT. However, stakeholders told us that the rise in sales has been partly, sometimes fully, offset by increases in the price of imported inputs such as printing.
- **Protection of intellectual property (IP):** publishing rights sit at the very core of what publishers do, and of the value they contribute to the economy. Interviews with publishing executives suggest that this is one of the aspects that they are most concerned about with respect to Brexit. For UK publishing to be sustainable, the revenues gained from IP-protected material must flow back to the UK and support future work. There is some concern that if UK and EU IP law and policy were to differ, local publishers may “lose their place at the table” when discussing issues of rights protection in Europe, leading to a disadvantage when competing globally.
- **EU workforce:** Stakeholder interviews indicated that EU nationals make up a large proportion of the employees in academic journal publishing particularly. These globally-facing businesses may be harmed if it becomes more difficult to hire EU nationals in the UK in the future. At the very least, problems of attracting and retaining suitably skilled staff after Brexit are no less acute in publishing than other sectors.
- **Potential trade implications:** UK publishing is already a strong export business worldwide (not only to the EU), and the core advantages offered by the English language, the UK’s cultural influence and the high quality of local content and talent is thought to allow the UK to remain a global hub for publishing, especially in the academic sector. Sector stakeholders suggested that it is crucial for the sector that a strong copyright framework and IP enforcement measures are central to any future free-trade agreements with the EU or the rest of the world.



## 3.2 Journal publishing

The value chain for academic journal publishing is more linear than that for books. Publishers set up and manage peer-reviewed journals, to which academic authors submit their papers for review and publication. These go through a peer-review process, but are also edited and, crucially, linked up via various systems to other relevant papers and then archives in searchable and categorised databases in order to form the basis of the overall collection of knowledge in a scientific discipline. Publishers also participate in knowledge dissemination in other ways, like organising conferences and providing tailor-made knowledge management tools for academic and corporate clients.

The output of journals gets to its end-users, be it academic or corporate, in several ways:

- through a publisher's own platform, normally online;
- through print copies of specific journals, or collections thereof;
- through third parties such as aggregator websites and subscription agents; or
- through consortia of academic libraries, acting as buying groups for journals.

The main adjacent industries in this case are academia itself, as well as businesses which rely on input from academic research to support their research and development (R&D) functions. The contributions that publishing can make to this process include:

1. Providing data and evidence to support research funding applications and academic career advancement.
2. Ensuring outputs are of good quality through facilitating peer-review, editorial, enabling conferences and related activities.
3. Ensuring research outputs are accessible, archived, discoverable, linked and connected to other research, and enabling a clear intellectual property claim for outputs. This enables outputs to be absorbed, helps ensure IP can be identified and rewarded and facilitates collaborations.
4. Directly facilitating absorption of research outputs through specific support to research users and helping collaborations between users form.

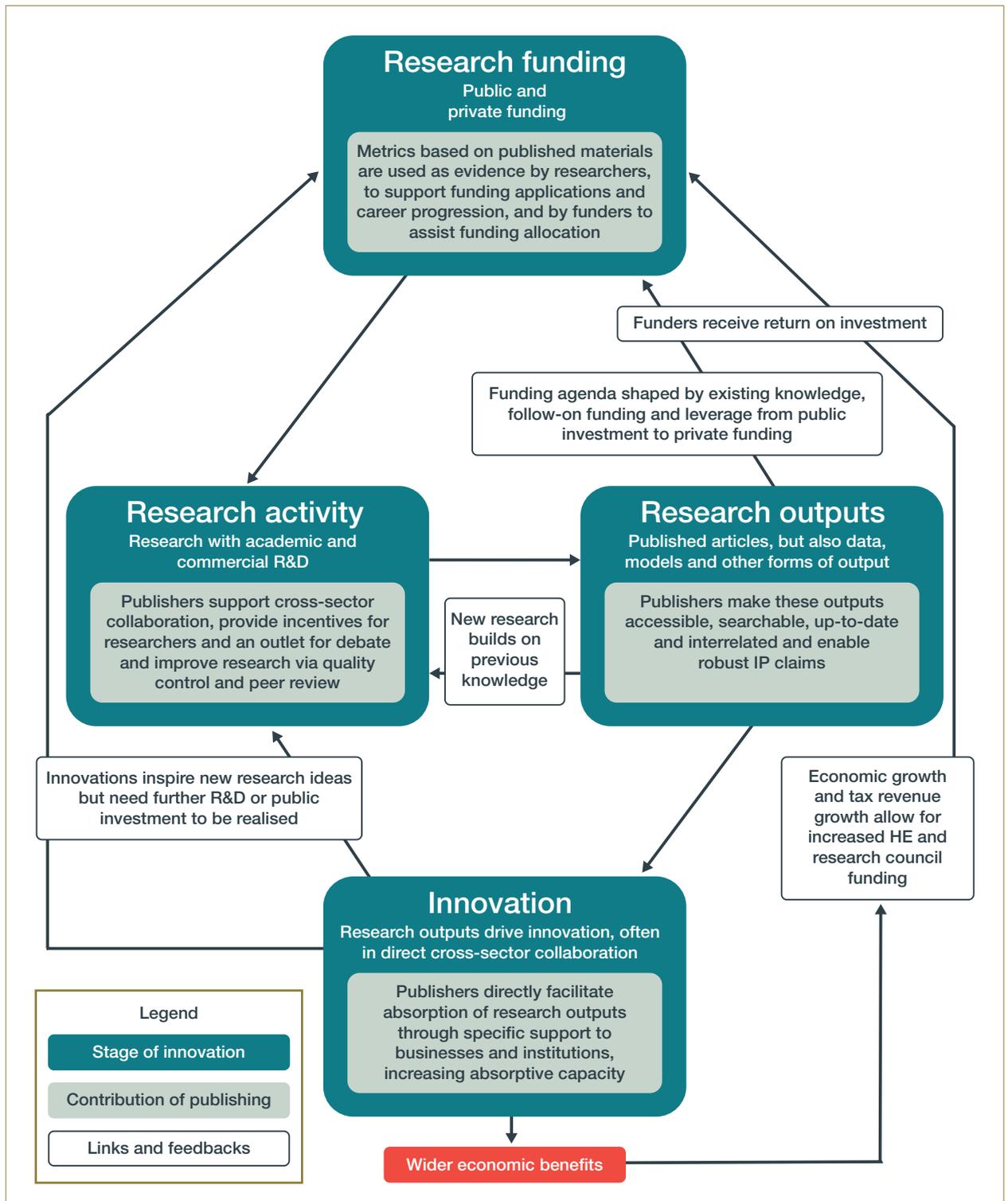
Stakeholder interviews and previous research suggests that in recent years, digital platforms have become an increasingly important part of the activity of academic publishers.<sup>73</sup> Not only do publishers make their own material available in searchable and linked databases, but they increasingly provide custom-made platforms for academic institutions and for commercial firms. Examples of these include knowledge management systems, database management services, digital repositories and peer review systems. The larger publishers work directly with industries like farming and pharmaceuticals to try and save them time and improve the quality of their work via customised solutions. The implication of these relatively new mechanisms is that academic publishing not only indirectly supports commercial activity of its academic and research and development customers, but also funnels funds into the digital technology economy by being a customer for firms building various platforms and databases.

A companion report explores this in depth, but the main findings are outlined in **Figure 23** below.

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<sup>73</sup> See for instance Ware, M. and Mabe, M., 2015. *The STM report: An overview of scientific and scholarly journal publishing*.

Figure 23 The contribution of publishing to the innovation cycle



Source: Frontier Economics, 2017

Note: See companion report, 2018.

This framework above is a simplified synthesis of the ways research supports innovation. It is a non-linear process with many interdependencies, and the role of academic publishing in this area has been only partially articulated in existing research and government thinking.

We find that publishing helps facilitate innovation at each stage of the cycle, playing a different role at each one, as outlined above.

While some of the roles of publishers could be replicated to varying degrees of quality by others (while potentially still making innovation less efficient), its core contributions are largely unique; these are:

- providing the basis for metrics used in funding decisions;
- organising and coordinating the peer review process;
- establishing precedence for intellectual property and reputation needs.

### 3.3 Multiplier effects for publishing

As well as the indirect effects of publishing activity on upstream and downstream sectors, there is also a wider ripple effect of economic contribution through ‘induced’ effects: part of the money publishers spend on anything, be it author advances, intellectual property or coffee, and then gets spent onwards by the individuals or businesses that receive it.

These are part of what is captured in ‘multipliers’. There have been a series of studies in recent years applying the multiplier approach to the UK creative industries (summarised in **Figure 24** below).

These reports have analysed ONS data on output, GVA or employment to try and assess the indirect contribution of various sectors, and have broadly arrived at multipliers around 2.0. This means that for every £1 (or one job) directly created by the corresponding sector, there is an additional £1 (or one job) created as an indirect or induced effect of that sector. While there is not much research on publishing specifically, it seems likely the figure would be similar. Indeed, the one piece of research which reports book publishing’s multiplier finds it to be identical to the average multiplier for “arts and culture”.

Taking a multiplier of 2.0 gives the following overall economic contribution of UK publishing, accounting for indirect and induced effects:

- £6.4bn GVA in 2016; and
- 58,000 jobs supported in 2015.

The upper limit of the multiplier would lead to direct, indirect and induced effects of as much as £7.8bn GVA in 2016 and as many as 70,000 jobs supported.

Some analysis of the key sectors related to publishing, based on input-output tables and which could underpin the estimates of multipliers, is given in **Annex B**.

# 1.7–2.43

Range of recent multiplier estimates for book publishing and other creative industries.

Figure 24 Recent multiplier estimates for UK creative industries

Year	Report	Sectors	Multipliers: total (direct + indirect + induced)
2012	<i>"The Economic Impact of the UK Film Industry"</i> , by Oxford Economics <sup>74</sup>	The Film and TV industry - SIC codes 59.11, 59.12 and 59.14	GVA and employment: 2.0 (1.0+0.75+0.25)
2013	<i>"The Economic Value of the BBC"</i> , based on economic modelling by Deloitte <sup>75</sup>	BBC's impacts through various creative industries (including publishing), as well as marketing and sales	GVA: 1.7–2.4
2013	<i>"The contribution of the arts and culture to the national economy"</i> , by CEBR <sup>76</sup>	Book publishing (SIC code 58.11)	GVA: 2.43 (1.0 + 0.86 + 0.58) Output: 1.97 (1.0 + 0.61 + 0.36)
2015	Update to <i>"Contribution of the arts and culture industry to the national economy"</i> , by CEBR <sup>77</sup>	"Arts and culture" – SIC codes 58.11 (book publishing), 59.2 (sounds recording and music publishing), and some subcategories of 90 (creative, arts and entertainment activities)	Output: 2.15 (1.0 + 0.58 + 0.56) <sup>78</sup> GVA: 2.06 (1.0 + 0.54 + 0.52) Employment: 2.38 (1.0 + 0.79 + 0.59) Income: 2.06 (1.0 + 0.6 + 0.47)

Source: Various; see footnotes

Note: Multipliers are in comparison to the direct contribution of a sector or organisation. For instance, a multiplier of 2.0 means that for every £1 a sector spends directly, there is an additional £1 of indirect and induced effects, for a total of £2.

<sup>74</sup> <http://www.bfi.org.uk/sites/bfi.org.uk/files/downloads/bfi-economic-impact-of-the-uk-film-industry-2012-09-17.pdf>

<sup>75</sup> [http://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/bbc\\_economic\\_impact\\_2013.pdf](http://downloads.bbc.co.uk/aboutthebbc/insidethebbc/howwework/reports/pdf/bbc_economic_impact_2013.pdf)

<sup>76</sup> [http://www.artscouncil.org.uk/sites/default/files/download-file/The\\_contribution\\_of\\_the\\_arts\\_and\\_culture\\_to\\_the\\_national\\_economy.pdf](http://www.artscouncil.org.uk/sites/default/files/download-file/The_contribution_of_the_arts_and_culture_to_the_national_economy.pdf)

<sup>77</sup> [http://www.artscouncil.org.uk/sites/default/files/download-file/Arts\\_culture\\_contribution\\_to\\_economy\\_report\\_July\\_2015.pdf](http://www.artscouncil.org.uk/sites/default/files/download-file/Arts_culture_contribution_to_economy_report_July_2015.pdf)

<sup>78</sup> This is lower than the 2.43 multiplier CBER estimated two years prior for the same sector. While they do not publish multipliers specifically for books in the 2015 version, it stands to reason these would be slightly lower as well.

## 4 CONCLUSIONS

An economic analysis of publishing in the UK reveals a dynamic industry, with strong links to other sectors and which uses some core local advantages to be highly productive, export-oriented, and a major investor in intangible intellectual assets. This section summarises the approach and findings of the report.

### Approach

There are various ways in which the publishing industry has been defined in the past, some wider than others.

For most of our analysis, we use the core definition used by the PA one that includes book publishing and academic journal publishing, but excludes translation services and publishing of magazines, newspapers, software and miscellaneous items such as maps and posters.

### Key results

- **GVA:** In gross value added (GVA) terms, we find that the publishing industry directly contributed £3.2bn to the UK economy in 2016, or about 0.2% of economy-wide GVA. About two-thirds (£2.2bn) of this figure was generated by book publishing, and the remainder (£1.0bn) by journal publishing. Turnover was estimated at £5.1bn in 2016, with 75% from books and 25% from academic journals. UK companies are world leaders in areas of publishing ranging from educational publishing to Science, Technology and Medical publishing.
- **Exports:** Much of this contribution comes via exports, as publishing is a heavily outward-focused industry with £2.9bn export revenues in 2015. Export intensity is high: 43% of book sales and 88% of academic journal sales. The UK is the largest exporter of physical books in the world with a 17% share of world exports. The UK has a trade surplus in physical books of £1.1bn, all else equal reducing the UK's trade deficit by 2.1%. Moreover, only 60% of UK exports go to the top 10 destinations, making UK export destinations much more diverse than the US (82%) and Germany (87%). Stakeholders are confident UK publishing exports will continue to grow in the future.
- **GVA growth:** Not only does the publishing sector contribute a substantial amount of GVA to the economy, but its contribution has also been growing quickly over time, outstripping average UK growth. Between 2012 and 2016, the publishing sector has seen higher GVA growth (19%) than the overall UK economy (15%), and was in line with growth in the creative sectors in general. Within the sector, academic publishing has seen even faster growth, 41% between 2012 and 2016.
- **Employment:** In 2015, the UK publishing industry was estimated to have directly employed approximately 29,000 people, 26,100 (90%) in book publishing and 2,900 (10%) in academic journal publishing. This number excludes thousands of additional freelancers in roles such as copy editing, proofreading and marketing. Publishing jobs are also high quality, with 85% of book publishing jobs being full-time and employees tending to be highly educated.
- **Productivity:** According to official ONS data, the book and academic publishing industry has a high labour productivity of £112,800 GVA per worker per year. This is comparable to high-knowledge sectors such as the *Information and Communication* sector (£96,100), and higher than the average for creative industries. This labour productivity has grown over time, in a period where economy-wide productivity has languished. Publishing also pays higher average wages than the UK as a whole, in line with its high productivity.
- **Investment:** A significant part of publishers' contribution to the economy is through investment, both tangible (in the likes of machinery and software systems) and intangible (through the support given to authors through advances). Both types together accounted for £545m in 2016. While tangible investment in the sector was £168m, intangible investment in artistic originals was much higher – estimated at £377m per year.

- **Indirect contribution upstream:** One of the major ways in which publishing contributes to the UK economy via its adjacent sectors leading up to the production of a book or article.
  - In line with the intangible investment methodology described above, we estimate that authors have received an estimated £161m in royalties and advance payments in 2016.
  - While it is difficult to attain hard data on the use of freelancers, industry stakeholder interviews suggest that the industry may support several thousand individuals who provide bespoke services in areas like copy editing, translating, graphic design, cover design, marketing and public relations.
  
- **Indirect contribution downstream:** Publishers also maintain strong ties with several industries “downstream”, which take part in making books and journals a reality.
  - The strongest such link is to the printing industry, which employs 116,000 people (89% outside London) with a total GVA of £5.8bn. While we do not have data on the magnitude of the ties between the core publishing industry and the printing industry, ONS figures suggest that the wider publishing industry (including newspaper and magazines, among others) spends £1.2bn a year on printing services and a further £1.4bn on paper products.
  - Other strong ties with adjacent industries include those with the education sector, with academia and with other creative industries. These will be explored in more detail in a separate report.
  
- **Multipliers:** Finally, input/output multiplier analysis can be used to estimate the magnitude of the indirect and induced contribution of a sector. While multiplier analysis is not particularly transparent or robust when applied to very specific sectors of the economy, it is widely used and recent studies have estimated multipliers in the creative industries. Most estimates are in the 1.70–2.43 range, suggesting a multiplier of around 2. This means that under some conditions, for every £1 of direct economic contribution from publishing, there is approximately £1 more created through indirect and induced effects. This would add up to an overall GVA contribution of £6.4bn to the UK economy in 2016. The upper limit of the multiplier would lead to direct, indirect and induced effects of as much as £7.8bn GVA in 2016 and as many as 70,000 jobs supported.

# A DEFINITIONS, SOURCES AND METHODOLOGY

## A.1 Comparison to other definitions of publishing

Both the DCMS and the ONS define the publishing industry differently from us.

### A.1.1 DCMS

There are two main differences between the DCMS definition of publishing and our definition of publishing. First, the DCMS includes additional industries based on the following SIC codes:

- 58.12 – Publishing of directories and mailing lists;
- 58.13 – Publishing of newspapers;
- 58.142 – Consumer/business journals;
- 58.19 – Other publishing activities; and
- 74.30 – Translation and interpretation activities.

Second, DCMS includes workers in other industries as they have a “creative job” based on the following Standard Occupational Classification codes:

- 2471 – Journalists, newspaper and periodical editors; and
- 3412 – Authors, writers and translators.

### A.1.2 ONS

The ONS define the publishing industry including additional industries relative to the definition of publishing used in this report. These are based on the following SIC codes:

- 58.12 – Publishing of directories and mailing lists;
- 58.13 – Publishing of newspapers;
- 58.142 – Consumer/business journals;
- 58.19 – Other publishing activities;
- 58.21 – Publishing of computer games; and
- 58.29 – Other software publishing.

## A.2 Understanding the differences in ABS and the PA Publishing Yearbook

Further detail on the two main data sources we use in the report is provided below.

The **Annual Business Survey (ABS)** is the largest business survey conducted by the ONS. It is annual survey of 73,000 businesses in the UK covering the production, construction, distribution and service industries, which represents about two-thirds of the UK economy in terms of gross value added (GVA). ABS provides high-level indicators of economic activity such as GVA, turnover, employment and capital expenditure acquisitions. The ABS sample is drawn from a list of UK businesses on the Inter-Departmental Business Register (IDBR). Businesses are added to the IDBR if they are:

- registered for Value Added Tax (VAT) with HMRC;
- registered for a Pay As You Earn (PAYE) scheme with HMRC; or
- an incorporated business registered at Companies House.

The IDBR covers businesses in all parts of the economy, except some very small businesses; the self-employed and those without employees both of which are not registered for PAYE and those with low turnover which are not registered for VAT, and some non-profit making organisations. There are 2.1m businesses on the IDBR; covering nearly 99% of UK economic activity.

The *PA Publishing Yearbook* (previously *PA Statistics Yearbook*) is the definitive source for turnover and export statistics on the UK book publishing industry and more recently the learned journal market. It provides bottom-up estimates of turnover and exports with detailed splits by source of turnover (book sales, journal sales and rights and coeditions) categories of publishing (Academic/professional; Schools; Fiction; etc.), domestic vs. export and export destination.

Understanding the differences between the ABS and the *PA Publishing Yearbook* is important because they give different numbers for turnover in the publishing industry.

In the most recent years available, the ABS gives a higher turnover estimate for the book publishing industry (£5.2bn) than the *PA Publishing Yearbook* (£3.8bn) but a lower turnover estimate for academic journals (£0.8bn vs. £1.3bn).

We chose to use the *PA Publishing Yearbook* turnover estimates over the ABS turnover estimates for a number of reasons.

- The *PA Publishing Yearbook* more closely aligns with our definition of the publishing industry. It includes enterprises that engage in publishing but not as their primary activity and it excludes economic activity unrelated to publishing, but still undertaken by organisations for which publishing is their primary activity.
- Some large publishing organisations are active in multiple areas, not just book publishing and academic journal publishing but also areas such as newspaper publishing and magazine publishing. But in the ABS survey reporting units (often whole organisations or large parts of organisations) are allocated only one SIC code. This has the potential to make the ABS figures misleading.
- Similarly, large firms active in multiple areas sometimes switch SIC codes. This can lead to large jumps in ABS figures and make them difficult to compare over time. For example, ABS staff told us that an organisation with over 250 employees changed its SIC code from newspaper publishing to book publishing in 2014, leading to a misleadingly large increase in turnover (and GVA) in book publishing that year in ABS. This appears to be an even bigger problem for academic journal publishing, for example, ABS shows a doubling of employment costs between 2012 and 2014 (£77m to £157m). This suggests at least one large enterprise switched SIC codes into academic journals between 2012 and 2014.

Figure 25 Comparing the Annual Business Survey and the *PA Publishing Yearbook*

	Annual Business Survey	<i>PA Publishing Yearbook</i>
<b>Coverage</b>	<p>Based on SIC codes for book publishing and academic journal publishing.</p> <p>Primary activity of the reporting unit must be in book or academic journal publishing</p> <p>Excludes some very small businesses; the self-employed and businesses without employees (both of which are not registered for PAYE). It also excludes businesses with low turnover (so not registered for VAT) and some non-profit making organisations.</p>	<p>Traditional publishing. Excludes self-publishing.</p> <p>Publishing does not need to be the primary activity of the reporting unit.</p>
<b>Consistency over time</b>	<p>Large firms active in multiple areas sometimes switch SIC codes. This can lead to large jumps in ABS figures and make then difficult to compare over time.</p>	<p>Mostly consistent allowing like-for-like comparisons over time.</p> <ul style="list-style-type: none"> <li>■ For academic journal sales, the same publishers contribute figures each year.</li> <li>■ For book sales and rights income there are only small changes in PASM and rights survey participants over time.</li> </ul>
<b>Turnover (Book publishing, 2015)</b>	£5.2bn	£3.6bn
<b>Turnover (Academic journals, 2014)</b>	£0.8bn	£1.0bn
<b>Possible reasons why book publishing turnover is higher in ABS</b>	<ul style="list-style-type: none"> <li>■ Some enterprises that engage in book publishing as their primary activity may also be active in other areas such as academic journal publishing and newspaper publishing. Turnover from these other activities may be included in the ABS total but not the <i>PA Publishing Yearbook</i> total.</li> <li>■ The <i>PA Publishing Yearbook</i> may underestimate the turnover of book publishers. <ul style="list-style-type: none"> <li>– It excludes the domestic sales of rights and coeditions. However, stakeholders suggested domestic sales and rights and coeditions were relatively small.</li> <li>– It may exclude other sources of revenue for book publishers. Again interviews with stakeholders did not suggest any other significant revenue streams.</li> </ul> </li> <li>■ ABS may include non-traditional forms of book publishing not covered by the <i>PA Publishing Yearbook</i>.</li> </ul>	
<b>Possible reasons why academic journal publishing turnover is higher in the <i>PA Publishing Yearbook</i></b>	<p>Some enterprises that engage in academic publishing but not as their primary activity may have different SIC codes, such as for book publishing, newspaper publishing or magazine publishing.</p>	

Source: Frontier analysis, ABS, *PA Publishing Yearbook*

Note: Turnover figures are the most recent available.

## A.3 Methodology

This section provides more detail on our approach to estimating turnover, GVA and investment in the publishing industry.

### A.3.1 Turnover

For turnover estimates we draw heavily on the PA's yearbook. We now explain how the *PA Publishing Yearbook* figures are collected.

#### Physical and digital book sales

Total book sales are derived from the PA's ongoing Publishers Association Sales Monitor (PASM) data collection scheme, which records the physical and digital book sales of publishers who are estimated to account for around three-quarters of total UK publisher sales. The PA "gross up" the data from PASM based on the results of a one-off Benchmarking Exercise conducted in 2005.

#### Academic journal sales

Academic journal sales estimates are based on the amalgamated responses of the participating companies in the PA's Journal Statistics Scheme, which account for about 70% of journals published by UK-based entities (i.e. publishers, societies or other bodies). The same set of members contributes figures each year, thereby providing a like-for-like comparison.

Our estimate of academic journal revenue is conservative as we do not "gross up" this figure, reflecting the possibility that 70% of journals published by UK-based entities within the PA's Journal Statistics Scheme may differ systematically from the 30% of journals outside the PA's Journal Statistics Scheme.

#### Rights and coeditions

Rights and coeditions income is estimated by Roger Watson on behalf of the PA using a survey. In 2016 there were 31 responses from publishers' imprints covering approximately 65% of book sales. However, the survey covers only book exports – it does not cover domestic book sales or academic journals (exports or domestic sales). We therefore make the following adjustments:

- We gross up the *PA Publishing Yearbook* survey figures to provide an estimate of the total size of the book rights and coeditions export market.
- Stakeholders that we interviewed from the Publishers' Licensing Services (PLS)<sup>79</sup> and academic journal publishers suggested that rights and coeditions income is much more significant for books than for academic journals. The exception is secondary licensing income which the PLS told us accounted for £23m in 2016 (£16m for books and £7m for academic journals). We include these PLS figures in our turnover estimation as a separate item. We also reduce the figures from the *PA Publishing Yearbook* by £3m to avoid double-counting secondary licencing income from book exports.
- We do not, however, attempt to estimate domestic rights and coeditions income for either books or journals. This is because domestic rights deals tend to be complex, involving multiple publishers and literary agents, making double-counting difficult to avoid. Stakeholder interviewees suggested that domestic rights sales were relatively small.

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<sup>79</sup> Previously the Publishers Licensing Society.

Our turnover estimate is summarised in the table below:

Figure 26 Turnover: 2016

Turnover category	Value (£m)	Exports (£m)	Source notes
<b>Books</b>			
Sales	3,509	1,500	Directly from <i>PA Publishing Yearbook</i> . Already scaled up.
Rights	257	257	From <i>PA Publishing Yearbook</i> but scaled up to cover entire market and reduced to avoid double-counting secondary licensing income.
Coeditions	65	65	From <i>PA Publishing Yearbook</i> but scaled up to cover entire market.
Secondary licensing	16	3	PLS interview and correspondence. Already covers whole market.
<b>Total</b>	<b>3,847</b>	<b>1,825</b>	
<b>Academic journals</b>			
Sales	1,245	1,088	Directly from <i>PA Publishing Yearbook</i> . Not scaled up.
Rights and coeditions	-	-	No data in <i>PA Publishing Yearbook</i> . Interviews suggested not important source of turnover.
Secondary licensing	7	2	PLS interview and correspondence. Already covers whole market.
<b>Total</b>	<b>1,252</b>	<b>1,090</b>	
<b>Publishing industry</b>			
Sales	4,754	2,588	
Rights and coeditions	322	322	
Secondary licensing	23	4	Figures from PLS. Differs from <i>PA Publishing Yearbook</i> which includes magazines.
<b>Total</b>	<b>5,099</b>	<b>2,915</b>	

Source: Frontier Analysis, *PA Publishing Yearbook 2016, Publishers' Licensing Services*

Note: Rights income does not include secondary licensing income. Figures may not add up due to rounding.

## A.3.2 Gross Value Added

Although the ABS gives a GVA estimate for book publishing (£2.9bn) we prefer to estimate it using the *PA Publishing Yearbook* for the reasons outlined in **Annex A.3.1**.

From the *PA Publishing Yearbook*, the total value of book publishing turnover was in 2016 was £3.8bn and the total value of academic journal publishing turnover was £1.3bn. Using these turnover estimates, we estimate the GVA of book and academic journal publishing in 2016. We did this in two steps:

- Step 1 – Estimate the GVA/turnover ratio for book publishing and academic journal publishing; and
- Step 2 – Estimate the GVA of book publishing and academic journal publishing.

### Step 1

We estimate the average GVA/turnover ratio in the book publishing industry using the ratios in the Annual Business Survey for book publishing (0.57) and academic journal publishing (0.82). Although we are suspicious about the absolute level of turnover and GVA for book publishing, we are less concerned about the GVA/turnover ratio as the problems identified in **Annex A.3.1** largely cancel out when this ratio is used.

### Step 2

We estimate the GVA for books and academic journals by multiplying the turnover estimates from the *PA Publishing Yearbook* with the GVA turnover ratios calculated in step 1. We estimate the GVA of book publishing in 2016 to be £2.2bn and of academic journal publishing to be £1.0bn.

Our estimation of GVA is summarised in **Figure 27**.

**Figure 27 Estimation of GVA for 2016**

	<i>PA Publishing Yearbook</i> turnover (£bn)	ABS GVA/turnover ratio	GVA estimate (£bn)
Books	3.847	0.57	2.194
Academic journals	1.252	0.82	1.030

Source: *PA Publishing Yearbook 2016*, ABS

Note: ABS turnover ratio is the most recently available. This is for 2015 for book publishing and 2014 for academic journal publishing.

## A.3.3 Investment

Our estimate of publishing investment in artistic originals is derived from the work of Goodridge (2013). Goodridge estimates publishing investment using a revenue-based approach and adds up the following categories:

- total advances;
- royalties received by UK authors from sales;
- revenue from secondary rights; and
- cost of own-account writing and editing by publishing houses.

This gives him an estimate £550m of publishing investment in artistic originals in 2010. However, we would like to exclude investment in artistic originals by authors, which is included in Goodridge's analysis. Personal email discussion with Goodridge indicated that authors' share of investment was stable over time at approximately 30% of the total. The remainder of this investment in artistic originals can be attributable to the UK publishing industry. Goodridge's data runs from 2005 to 2010 and we extrapolate his estimates using the ONS's growth rates for intangible investment more widely to obtain an estimate of £377m worth of investment in artistic originals by the UK publishing industry.

Our estimate of investment in fixed assets follows the same logic as our estimate of GVA. We used a two-step process:

- Step 1 – Estimate the investment / turnover ratio for book publishing and academic journal publishing; and
- Step 2 – Estimate investment in fixed assets by book publishers and academic journal publishers.

For our investment/turnover ratio, we use the ABS measure of capital expenditure acquisitions. ABS defines fixed assets as things such as property, land, machinery and equipment that are expected to be kept for some time (specifically they are not used up in the production process during the reference year), and that cannot readily be sold or converted into cash. The measure includes new construction, computer software and replacing things destroyed in circumstances which give rise to an insurance claim, such as fire or flood.

The results are shown in **Figure 28**.

**Figure 28 Estimation of investment in fixed assets (2016)**

	<i>PA Publishing Yearbook</i> turnover (£bn)	ABS investment/ turnover ratio	Investment in fixed assets estimate (£m)
Books	3.847	0.028	108.1
Academic journals	1.252	0.048	60.1
Publishing industry	5.099	-	168.2

Source: *PA Publishing Yearbook 2016, ABS*

Note: *ABS turnover ratio is the most recently available. This is for 2015 for book publishing and 2014 for academic journal publishing.*

## A.4 Selected creative industries

**Figure 29 Selected creative industries in Figure 4**

Name	SIC code(s)
Advertising agencies	73.11
TV programming and broadcasting	60.2
Motion picture, video and TV production, post-production, distribution and projection	59.11; 59.12; 59.13; 59.14
Architecture	71.11
Performing arts and support	90.01; 90.02
Public relations and communication	70.21
Sound recording and music publishing	59.2
Photographic activities	74.2
Radio broadcasting	60.1
Museums, galleries and libraries	91.01; 91.02

Source: *Frontier Analysis; Standard Industrial Classification 2007*

## B ANALYSIS OF INPUT-OUTPUT TABLES

As we described in **Section 1**, precisely what underpins a multiplier is somewhat opaque. We can get some insight by looking at input-output supply and use tables, produced by the ONS in order to measure the magnitude of economic ties between different industries and sub-industries in the UK. They set out how much of each industry's economic output (be it raw materials, products or services) is used in their final form, and how much is used as an intermediate output to produce some other product or service.

However, the figures are not published at a very disaggregated level: as a result we can look at these tables only for “publishing” defined not only as books and academic journals, but also newspapers, commercial magazines and software. By turnover, books and academic journals accounted for 26% of this category in 2015, so some of the links may not be representative of the relevant definition discussed in this report. Naturally, this will be less of a concern in some areas, where it is reasonable to assume books and journals are a large part of the industry's ties to another sector (for instance, education), but could be quite wrong in others, where newspapers or magazines may have strong links as well (e.g. paper and ink).

All figures in this Annex are based on the most recent such tables published by the ONS, from 2014.<sup>80</sup> **Figure 30** presents the five sectors upstream with the largest value of output purchased by publishing. In other words, these are the five sectors from which publishing buys the largest value of its inputs. In the rightmost column, alongside the monetary amounts, is the share of the total output of the upstream industry that is bought by publishing. This offers an indication as to the level of dependence and the strength of the ties between the various sectors.

**Figure 30 Upstream: sectors that sell the largest share of their intermediate output to publishing, 2014**

Rank	Industry	£m of output bought by publishing	Share of total output of the upstream industry
1	Paper and paper products	1,429	7.2%
2	Printing and recording services	1,235	13.8%
3	Employment services	765	1.9%
4	Advertising and market research services	722	2.7%
5	Land transport services and transport services via pipelines, excluding rail transport	319	0.9%

Source: ONS input-output supply and use tables, 2014

Note: Excluding intermediate outputs from publishing firms to other publishing firms

The strongest link is a natural one, to the printing and the paper industries – nearly £2.7bn of products and services are bought annually from these sectors by the wider publishing industry.<sup>81</sup> Publishing also buys significant inputs from printers, advertisers, those helping with recruitment and transport.

<sup>80</sup> See <https://www.ons.gov.uk/economy/nationalaccounts/supplyandusetables/datasets/inputoutputsupplyandusetables>. Values take account of intermediate consumption only. That is, any product or service that gets sold on to end consumers (such as a finished book) is excluded from this analysis as it is a final output, not an intermediate one. It is for this reason that bookstores or retailers, for instance, do not appear in the largest downstream sectors.

<sup>81</sup> Much of this is presumably accounted for by the newspaper sector, which is a large user of paper, but this still suggests that the link of publishing to paper and printing is quite strong. Note that printing may be “upstream” from publishing in the economic sense because it sells its output to publishers when they buy printing services. However, when looking at the market for books, printing is downstream from publishing in the sense that it's a later step. For a book to get made, it needs to go through a publisher first, and then be printed and sent on its way.

**Figure 31** presents the other side of that picture, in listing the downstream sectors who are the largest buyers of publishing output. For instance, 2.4% of all of the inputs into education (£809m) are bought from publishing firms. This is likely to be driven to a large extent by academic and textbook publishing.

**Figure 31 Downstream: sectors that buy the largest share of their intermediate inputs from publishing, 2014**

Rank	Industry	£m of inputs bought from publishing	Share of industry's inputs
1	Education	809	2.4%
2	Public Administration And Defence; Compulsory Social Security	355	0.5%
3	Residential Care & Social Work Activities	253	0.9%
4	Printing And Reproduction Of Recorded Media	193	2.7%
5	Insurance and reinsurance, except compulsory social security & Pension funding	155	0.3%

Source: ONS input-output supply and use tables, 2014

Note: Excluding intermediate outputs from publishing firms to other publishing firms

