



Professional, scientific and technical activities industry review, 2016

Final report

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Executive summary

Main messages

The main messages from the professional services industry review are:

- Conceptual appropriateness of the current price data source - the current price turnover series collected by the Monthly Business Survey (MBS) for measuring the professional services industries listed below, are conceptually appropriate:
 - 69.1 Legal activities
 - 69.2 Accounting, bookkeeping and auditing activities; tax consultancy
 - 70.1 Activities of head offices
 - 70.2 Management consultancy activities
 - 71 Architectural and engineering activities; technical testing and analysis
 - 72 Scientific research and development
 - 73 Advertising and market research
 - 74 Other professional, scientific and technical activities
 - 75 Veterinary activities

- Conceptual appropriateness of the deflator – the industry review has concluded that the current deflators should be replaced with Services Producer Price Index (SPPI) deflators, where these are available, as all SPPI's were designated as National Statistics following their assessment by the UK Statistics Authority in 2014. Previously, newly-developed SPPIs were Experimental Statistics and, therefore, were not used in National Accounts. Newly-developed SPPIs are available for legal activities (69.1); accounting, book keeping and auditing activities; tax consultancy (69.2); architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73). Where SPPIs are not available, for example, for activities of head offices (70.1); management consultancy activities (70.2); scientific research and development (72M and 72NM); other professional, scientific and technical activities (74); and veterinary activities (75) the current deflators should be retained. These industries use AWE/CPIY as deflators, except for veterinary services which uses CPI (which is 'A' rated, that is 'most appropriate'). The rationale for the use of AWE/CPIY is that AWE is used to reflect the labour costs which are normally a high proportion of the output price (the most refined level available is used, which are section level series, as lower level data are not published); and CPIY is used as a measure of the other costs of goods and services that would be used in providing the services (CPIY is used to achieve a basic price concept as it excludes VAT). The 50:50 weighting is a default position used in the absence of other reliable information (in any case, AWE and CPIY usually tend to move in the same way).

- Significant changes in the industries – overall, the review did not reveal significant change in the professional services industries, but it did raise a number of questions regarding the weighting of the market and non market output of the scientific research and development industry. This has an equal weighting (50:50), as recommended by the previous industry review, Research and Development Industry Review (2007), which examined a range of options for weights, with the average of the weights for all the options being close to the recommended equal (50:50) weighting. Currently, our Business Expenditure on Research and Development (BERD) and Gross Expenditure on Research and Development (GERD) surveys, as well as a report by the Department of Business, Innovation and Skills (BIS), What is the relationship between public and private investment in science, research and innovation? (2015), which is based on data from BERD, GERD, and other sources and studies, estimates the split in investment in research and development between the private and public sectors as in the region of 65:35 to 70:30, depending on the definition used. However, the ONS balanced

Supply and Use Tables (SUT), which are an established source of data on which to calculate weights, estimate the ratio between market and non-market output for the scientific research and development industry as 97:3. The difference in market and non-market weighting, depending on the source used, raises a number of conceptual questions with regard to the most appropriate source to be used for calculating weights, which requires further investigation, analysis and discussion.

Recommendations

Recommendations which have provisionally been suggested for implementation in Blue Book 2018 are as follows:

1. The current professional services average weekly earnings (AWE) deflators should be replaced with Services Producer Price Index (SPPI) deflators, where these are available. SPPIs are available for legal activities (69.1); accounting, bookkeeping and auditing activities; tax consultancy (69.2); architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73).
2. The weights for the output of the scientific research and development industry in terms of the market and non-market output split, which is currently equally (50:50) weighted should be the subject of a further in-depth review to examine the conceptual appropriateness of a range of options for weighting. It is recommended that this review should be completed for implementation in Blue Book 2018, along with recommendation 1.

Impact on conceptual quality

As a result of the implementation of the recommendations of the report for changes to professional services methods and data sources, the conceptual quality of some of the professional services industries will improve. Some of the professional services industries will move from a B “acceptable” rating to an A “appropriate” rating. These industries include legal activities (69.1); and accounting, bookkeeping and auditing activities; tax consultancy (69.2). The conceptual quality of some of the professional services industries will move from a C “in need of improvement” rating to an A “appropriate” rating. These industries include architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73). The changes to the conceptual quality ratings of professional services will be subject to further review and confirmation at implementation.

1 Introduction

In the UK, the output approach to measuring gross domestic product (GDP(O)) is based on a comprehensive and wide-ranging suite of short-term indicators that are used to compile the Index of Services, Index of Production, Retail Sales Index and Output in the Construction industry. The industry review programme considers the concepts, methods and data sources underpinning the short-term indicators on a rolling basis to ensure that they remain fit for purpose. The programme of work commenced in 2012 and is strongly supported by main external stakeholders and the UK Statistics Authority. The programme of reviews, covering all of the UK Standard Industrial Classification, is due to be completed in 2021.

This programme of reviews demonstrates the commitment of the Office for National Statistics (ONS) to quality assure outputs as part of the [Code of Practice for Official Statistics](#). It mirrors a similar work programme conducted between 2002 and 2009 during which time the Index of Services achieved National Statistics status in April 2007, due at least in part to the existence and impact of the industry review programme.

The reviews are prioritised using a priority matrix designed by ONS which is described in section 4.1 of the article [GDP Output Improvement Report – September 2014](#). The main determinant of an industry position within the priority matrix is the importance or weight of the industry, as measured by its contribution to gross value added (GVA) within the context of the overall economy. However, over time the matrix has played a lesser part in establishing the priority of the industry to be reviewed, and instead emerging issues have directed where resources must be focused.

The latest priority matrix is published in Annex 1 of the [GDP\(O\) Improvement Report 2016](#); changes to the 2016 matrix can be attributed to changes in GVA weights, revisions performance and changes in volatility. The professional, scientific and technical industries were selected for review due in part to the priority matrix and the availability of the newly developed Services Producer Price Indices for the industries. For the purpose of this report, professional services refers to all activities covered under UK SIC 2007 section M, professional, scientific and technical activities.

2 Industry overview

2.1 UK Standard Industrial Classification (UK SIC 2007)

The professional, scientific and technical (professional services) activities are classified under section M of the [UK Standard Industrial Classification \(2007\)](#), (UK SIC 2007). Activities under this section require a high degree of training, and make specialised knowledge and skills available to users. The activities under section M can be sub-divided into 7 separate divisions as follows:

- 69 Legal and accounting activities
- 70 Activities of head offices; management consultancy activities
- 71 Architectural and engineering activities; technical testing and analysis
- 72 Scientific research and development
- 73 Advertising and market research
- 74 Other professional, scientific and technical activities; and
- 75 Veterinary activities

These groups are further sub-divided into classes for ease of measuring output as listed in Table 1.

Table 1: UK Standard Industrial Classification 2007 codes for professional, scientific and technical activities

UK SIC (2007) component	UK SIC (2007) activity description
Division 69 Group 69.1 Group 69.2	Legal and accounting activities Legal activities Accounting, bookkeeping and auditing activities; tax consultancy
Division 70 Group 70.1 Group 70.2	Activities of head offices; management consultancy activities Activities of head offices Management consultancy activities
Division 71	Architectural and engineering activities; technical testing and analysis
Division 72 Division 72M Division 72NM	Scientific research and development Scientific research and development market sector Scientific research and development non-market sector
Division 73	Advertising and market research
Division 74	Other professional, scientific and technical activities
Division 75	Veterinary activities

Source: UK Standard Industrial Classification (2007)

A more detailed breakdown of the professional services industry is available in Annex A. This is particularly useful as it provides more specific information on what roles are undertaken within activities classified to divisions 69-75. The types of roles and activities undertaken within each aspect of the UK SIC 2007 classification can also be found in the ONS guide "Index, alphabetical and numerical". Inter-Departmental Business Register (IDBR) (pp. 200 - 207)

The [Inter-Departmental Business Register \(IDBR\)](#) is a comprehensive list of UK businesses that is used by government for statistical purposes. It provides the main sampling frame for business surveys carried out by ONS and other government departments. It is also a main data source for analyses of business activity.

The main administrative sources for the IDBR are VAT (Value Added Tax) and PAYE (Pay As You Earn) information from HM Revenue and Customs and details of incorporated businesses from Companies House. The information from these administrative sources is supplemented mainly by the ONS Business Register and Employment Survey to form the IDBR.

The [UK Business: Activity, size and location: 2015](#) statistical bulletin is published annually in October and contains information collated from a snapshot of the IDBR taken in March 2015. Information specific to the professional services industries (UK SIC 2007 divisions 69 to 75) has been extracted from the statistical bulletin to give an overview of the industry:

2.1.1 Inter-Departmental Business Register (IDBR) for Division 69

Information specific to 'legal and accounting activities' (UK SIC 2008 division 69) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 73,375 enterprises classified under division 69, an increase of 5.4% from 69,640 in 2014

- there is a roughly even split of enterprises within division 69. There are slightly more allocated within 69.2 – ‘Accounting, bookkeeping and auditing activities; tax consultancy’; which equates to 41,435 enterprises (56.5% of the total division). The remaining 31,940 (43.5%) businesses are classified as 69.1 – ‘Legal activities’.
- within division 69, the annual turnover of 15,945 (21.7%) enterprises was less than £50,000, and 540 (0.73%) with an annual turnover of over £1 million
- the majority of enterprises in division 69 have fewer than 5 people in employment (this equates to 56,910 enterprises, or 77.6% of the division)
- only 615 enterprises had more than 100 employees, this equates to 0.8% of enterprises

Further information, extracted from the IDBR publication, which is specific to division 69, is available in Annex B.

2.1.2 Inter-Departmental Business Register (IDBR) for Division 70

Information specific to “activities of head offices; management consultancy activities” (UK SIC 2008 division 70) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 160,875 enterprises classified under division 70, an increase of 10.5% from 145,545 in 2014
- the vast majority (95.4%) of enterprises are classified under 70.22 – ‘Management consultancy activities’, with 153,410 enterprises
- the remaining 7,465 enterprises are allocated within 70.1& 70.21 – ‘Activities of head offices’ and ‘Public relations and communication activities’; which equates to 4.6% of the total division
- within division 70, the annual turnover of 29,795 (18.5%) enterprises was less than £50,000, 555 (0.3%) had an annual turnover of over £1 million
- the majority of enterprises in division 70 have fewer than 5 people in employment (this equates to 148,995 enterprises, or 92.6% of the division)
- only 305 enterprises had more than 100 employees, this equates to 0.19% of enterprises. Further information, extracted from the IDBR publication, which is specific to division 70, is available in Annex B

2.1.3 Inter-Departmental Business Register (IDBR) for Division 71

Information specific to “architectural and engineering activities; technical testing and analysis” (UK SIC 2008 division 71) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 95,095 enterprises classified under division 71, up 10.1% from 86,350 in 2014
- the vast majority (94.0%) of enterprises are classified under 71.1 – “Architectural and engineering activities and related technical consultancy”, with 89,345 enterprises
- the remaining 5,750 enterprises are allocated within 71.2 – “Technical testing and analysis”; which equates to 6% of the total division
- within division 71, the annual turnover of 15,430 (16.2%) enterprises was less than £50,000, and 580 (0.6%) had an annual turnover of over £1 million
- the majority of enterprises in division 71 have fewer than 5 people in employment (this equates to 83,640 enterprises, or 88.0% of the division)
- only 390 enterprises had more than 100 employees, this equates to 0.4% of enterprises

Further information, extracted from the IDBR publication, which is specific to division 71, is available in Annex B.

2.1.4 Inter-Departmental Business Register (IDBR) for Division 72

Information specific to “scientific research and development” (UK SIC 2008 division 72) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 4,680 enterprises classified under division 72, up 9.1% from 4,290 in 2014
- within division 72, the annual turnover of 1,060 (22.6%) enterprises was less than £50,000, and 165 (3.52%) had an annual turnover of over £1 million
- the majority of enterprises in division 72 have fewer than 5 people in employment (this equates to 3,485 enterprises, or 74.5% of the division)
- only 150 enterprises had more than 100 employees, this equates to 3.2% of enterprises

Further information, extracted from the IDBR publication, which is specific to division 72, is available in Annex B.

2.1.5 Inter-Departmental Business Register (IDBR) for Division 73

Information specific to “advertising and market research” (UK SIC 2008 division 73) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 22,175 enterprises classified under division 73, a rise of 2.4% from 21,540 in 2014
- the majority of enterprises were within 73.1 – “Advertising”; which equates to 18,900 enterprises (85.2% of the total division).
- The remaining 3,275 (14.8%) of businesses are classified as 73.2 – “Market research and public opinion polling”
- within division 73, the annual turnover of 4,465 (20.1%) was less than £50,000, and 255 (1.1%) businesses had an annual turnover of over £1 million
- the majority of enterprises in division 73 have fewer than 5 people in employment (this equates to 17,855 enterprises, or 80.5% of the division)
- 255 enterprises had more than 100 employees, which represents 1.1% of total enterprises within division 73.

Further information, extracted from the IDBR publication, which is specific to division 73, is available in Annex B.

2.1.6 Inter-Departmental Business Register (IDBR) for Division 74

Information specific to “other professional, scientific and technical activities” (UK SIC 2007 division 74) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 75,915 enterprises classified under division 74, an increase of 17.2% from 64,800 in 2014
- the majority of enterprises were within 74.9 – “Other professional, scientific and technical activities not elsewhere classified (n.e.c.)”; which equates to 45,105 enterprises (59.4% of the total division)

- of the remaining enterprises in the division, 21,445 (28.2%) were classified as 74.1 – “Specialised design activities”, 7,985 (10.5%) were classified as 74.2 – “Photographic activity”, and 1,380 (1.82%) were classified as 74.3 – “Translation and interpretation activities”
- within division 74, the annual turnover of 13,500 (17.8%) was less than £50,000, and 170 (0.2%) businesses had an annual turnover of over £1 million
- the majority of enterprises in division 74 have fewer than 5 people in employment (this equates to 69,975 enterprises or 89.5% of the division)
- 75 enterprises had more than 100 employees, which represents 0.10% of total enterprises within the division

Further information, extracted from the IDBR publication, which is specific to division 74, is available in Annex B.

2.1.7 Inter-Departmental Business Register (IDBR) for Division 75

Information specific to “veterinary activities” (UK SIC 2007 division 75) has been extracted from the statistical bulletin to give an overview of the industry:

- as of March 2015 there were 3,530 enterprises classified under division 75, an increase of 3.1% from 3,425 in 2014
- within division 75, the annual turnover of 340 enterprises (9.6%) was less than £50,000, and 20 businesses (0.57%) had an annual turnover of over £1 million
- 1,495 enterprises had fewer than 5 employees (this equates to 42.4% of the division)
- 30 enterprises had more than 100 employees, which represents 0.85% of total enterprises within the division

Further information, extracted from the IDBR publication, which is specific to division 75, is available in Annex B.

2.2 Index of Services (IoS) industry structure

Whilst it is useful to establish the breakdown by UK SIC 2007 and the type of activities and roles undertaken by the industry; it is important to note the reporting structure of divisions 69-75 for the measurement of Index of Services (IoS). The IoS reporting structure used to measure division 69-75 in [UK National Accounts - Blue Book 2016](#) is shown in Table 2. The IoS currently does not report figures for industry 72, “scientific research and development”, for historical reasons dating back to its development as an Experimental Statistic, prior to its designation as a National Statistic.

Table 2: Professional, scientific and technical activities – Blue Book 2016

IoS structure	Description
69-71	Other professional service activities
73-75	Other professional, scientific and technical activities

Although the detailed IoS structure described in Table 2 is used for ease of measuring output, the lowest published level of data within the [IoS](#) publication and the GDP estimates ([preliminary estimate](#), [second estimate](#) and the [quarterly national accounts](#)) is at the levels seen in table 3 (section 2.3).

2.3 Importance of the professional services industries to the UK economy at Blue Book 2016

The importance of each industry within the context of the gross domestic product (GDP) of the overall economy can be expressed by a weight, in parts per thousand. For the [output approach](#) to measuring GDP, this represents its proportion of the sum of gross value added (GVA) produced by the economy in a given year. GVA is derived from outputs less inputs, or output less intermediate consumption. This is explained in more detail in the ["UK national accounts – a short guide"](#).

The weights used by the output approach to gross domestic product (GDP(O)) are derived from [supply and use tables](#) calculated as part of [supply and use balancing](#) for each year from 1997 and revisions tend to be higher in later periods. The weights are specifically the GVA for the industry divided by the total GVA for the economy and then multiplied by 1,000. To calculate GVA weights within the Index of Services, rather than dividing by the whole economy we divide by the total of the services industries.

In order for estimates to better reflect the changing industrial structures and prices in the economy, the last base year and reference year for chained volume estimates have been moved forward by one year, from 2012 to 2013, in Blue Book 2016 and Pink Book 2016. The weights for 2013 are also used in 2014 and subsequent periods. With reference to the whole economy, the updated weights will decrease the importance of industries where GVA has fallen and increase the importance of industries where GVA has risen. This will necessarily produce the potential for revision to the overall GDP(O) index, and although the growth rates of constituent industries will remain unchanged, their significance will vary each year. There were no significant changes to the GVA weights for 2013.

Currently, the last year for which weights are calculated is also the reference year for the index. Therefore, for the most recent UK National Accounts – Blue Book 2016; the latest GVA weights are for 2013 with the index produced on a 2013=100 basis. The GVA weights for 2013, as at Blue Book 2015, for division 53 are shown in Table 3.

Table 3: Blue Book 2016 summary of 2013 weights for divisions 69-75

Industry code	Industry description	2013 GVA weights (ppt)*		
		GDP(O) section weight	GDP(O) industry weight	IoS weight
M	Professional, scientific and technical activities	72.7303		92.3175
69	Legal and Accounting activities		24.6141	31.2430
69.1	Legal activities		14.0711	17.8606
69.2	Accounting, bookkeeping and auditing activities; tax consultancy		10.5430	13.3824
70	Activities of head offices; management consultancy activities		11.6470	14.7837

71	Architectural and engineering activities; technical testing and analysis	16.7638	21.2785
72	Scientific research and development	5.3978	6.8515
73	Advertising and market research	6.6559	8.4484
74	Other professional, scientific and technical activities	5.9366	7.5354
75	Veterinary activities	1.7151	2.1770

* (ppt) = parts per thousand

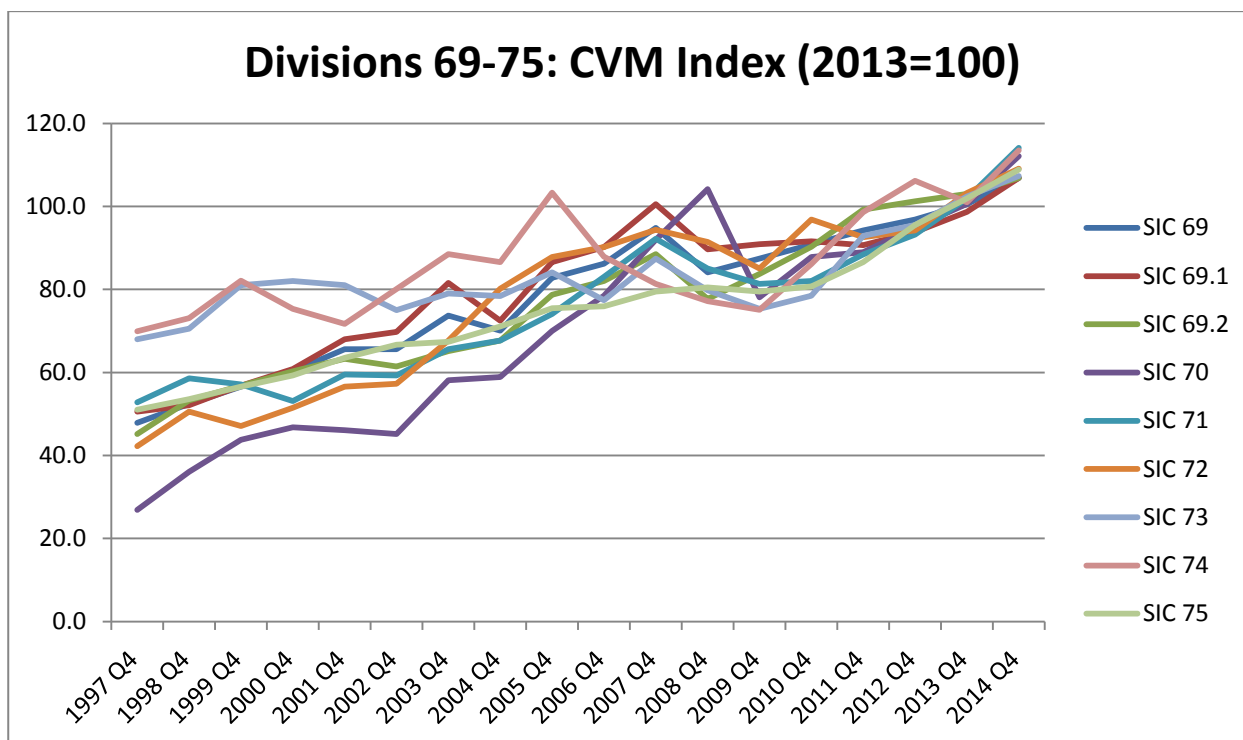
All weights listed are expressed as parts per thousand (ppt) and indicate the relative contribution to the UK economy, with the exception of the IoS weight, which indicates the relative contribution to the UK services industries. Table 3 shows that for Blue Book 2016, the professional services industries contributed 0.7% to the total UK economy and 0.9% to the UK services industries in 2013. All previous year's GVA weights are open to revision each year, as more data becomes available. For information on the derivation of IoS weights and aggregation weights, please see the [Index of Services methods](#) page on our website. For an overview of GVA weights used in GDP(O), see the [output approach to measuring gross domestic product – methods and sources](#) page on our website.

2.4 Output index for Professional Services

As previously mentioned, the lowest published level of data for the professional services industries within the [IoS](#) publication and within GDP publications ([preliminary](#) estimate, [second](#) estimate and the [quarterly national accounts](#)) is at division level, except for industry 69, which is at a class level (69.1 and 69.2) – see table 3.

Figure 1 shows the chained volume measure (CVM) index for UK SIC 2007 professional services divisions 69 to 75 from Quarter 4 (Oct to Dec) 1997 to Quarter 4 (Oct to Dec) 2015. The data has been extracted from the June 2016 publication [UK Quarterly National Accounts](#).

Figure 1: CVM index for the professional services industries Q4 1997 – Q4 2015 (2013=100).



Source: Office for National Statistics (June 2016) [Gross Domestic Product Preliminary Estimate](#)

It can be seen that the professional services industries have displayed relatively stable growth over the twenty year period shown in the graph, which was interrupted to some extent during the economic downturn from 2007 to 2009, before resuming its upward trend.

3 Previous industry reviews

As a part of our commitment to improve the sources and methods used to measure the UK services industries, the professional services industries were previously reviewed as part of the ONS Index of Services Development Industry Review Programme in 2003, and research and development was reviewed in 2006. The outcome of the reviews was published alongside Blue Book 2003 and Blue Book 2006 respectively, and the final reports entitled, [Business Activities \(Part 1\) Industry Review \(2003\)](#) and [Research and Development Industry Review \(2007\)](#), can be found on the ONS archived web page dedicated to [industry reviews](#). The review provided good background and conceptual information to support the methods and sources used to measure the professional services industries for GDP(O). Since the 2003 and 2006 industry reviews, methods and sources have been reviewed at periodic points to ensure they meet the requirements of measuring the industries from a national accounts perspective. It cannot therefore be assumed that the methods outlined in the previous reports are correct as of today. An overview of the methodology used in Blue Book 2016 to measure UK SIC 2007, section M (divisions 69 to 75); within the output approach to measuring GDP is detailed in section 4.

4 Blue Book 2016 methodology

This section outlines the Blue Book 2016 methodology used to measure short-term output in the professional services industries for the output approach to measuring GDP. The data sources, methods and concepts described in this section relate to those used for Blue Book 2016.

Table 4: Summary of Blue Book 2016 GDP(O) methodology for section M (divisions 69 – 75)

Industry code	Industry description	Current price source	Volume source	Deflator source
M	Professional, scientific and technical activities			
69.1	Legal activities	MBS	Derived	AWE / CPIY
69.2	Accounting, bookkeeping and auditing activities; tax consultancy	MBS	Derived	AWE / CPIY
70	Activities of head offices; management consultancy activities	Derived / MBS	Workforce Jobs	AWE / CPIY
71	Architectural and engineering activities; technical testing and analysis	MBS	Derived	AWE / CPIY
72	Scientific research and development	MBS / Derived	Derived / Workforce Jobs	AWE / CPIY
73	Advertising and market research	MBS	Derived	SPPI / AWE / CPIY
74	Other professional, scientific and technical activities	MBS	Derived	AWE / CPIY / SPPI

75	Veterinary activities	MBS	Derived	CPI
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Details of acronyms can be found in the glossary
Source: GDP(O) Source Catalogue, 2016

A “derived” measure can be calculated using the ratio or product of two indices, as in:

- dividing a current price index by a price index (to create a volume index)
- dividing a current price index by a volume index (to create an implied deflator)
- multiplying a volume index by a price index (to create a derived current price measure)

5 Conceptual quality

In considering the Blue Book 2016 methodology used to measure the professional services industries for the output approach to measuring GDP, it is useful to understand international guidance to ensure the reliability and comparability of data.

5.1 Industry specific guidance on conceptual quality

We use the most appropriate and comprehensive international guidance to judge the conceptual quality underpinning estimates of short-term growth. In this context the most important guidance is that contained in the Eurostat [Handbook on prices and volumes measures in national accounts \(2016\)](#). The handbook is based upon the [Classification of Products by Activity \(CPA\) 2008](#) which broadly relates to [UK Standard Industrial Classification of Economic Activities 2007](#).

Using this guidance framework the quality of each industry is re-assessed by our experts each year. It is important to note that the assessment considers the weakest element of each industry where this breaches a 10% significance threshold and rates the measures as A, B or C quality, with C rated as “improvement required”, B rated industries being deemed ‘acceptable’ and A rated industries achieving the highest ‘appropriate’ rating.

The Organisation for Economic Co-operation and Development (OECD) has also published the [Compilation manual for an Index of Service Production \(2007\)](#) providing international guidelines on the compilation of output indicators for the services industries for OECD member countries. It has been written to compliment the Eurostat “Handbook on prices and volumes measures in national accounts” but with emphasis on short-term measures of output – the Eurostat handbook has been written in the context of annual data, although it can be used in the context of quarterly and monthly data.

The [OECD manual](#) (paragraph 87) states that:

“Appropriately deflated turnover would be classified as an ‘A method’. Turnover deflated by a less appropriate deflator (for example, with wider industry coverage) would be classified as a ‘B method’. Generally the Eurostat handbook classifies volume measures as B methods. However, if there is a detailed breakdown by type of commodity ensuring reasonable homogeneity, and there is very little change in quality, a volume indicator could be classified as an A method. ‘Input’ indicators are classified as C category indicators by Eurostat, because they do not adequately detect changes in productivity; employment is an example.”

The [OECD manual](#) (Annex 2, page 118) lists the preferred methods for measuring the output of professional services:

Industry description	Preferred methodology
Legal, accounting, bookkeeping and auditing activities, tax consultancy, market research and public opinion polling, business and management consultancy	<p>Gross turnover deflated by appropriate quality adjusted price indices</p> <p>Turnover from survey of companies supplying these types of services or administrative data taken from tax returns which could be split by type of legal/ business service supplied.</p> <p>Examples are:</p> <ul style="list-style-type: none"> - Legal services - Financial services - Market research and public opinion polling - Business and management consultancy - Management and holding companies <p style="text-align: center;">Or</p> <p>Volume indicators</p> <p>Examples are:</p> <ul style="list-style-type: none"> - Number of contracts drawn up - Number of tax returns filed - Number of campaigns run - Number of billable hours
Architectural, engineering and other technical services	<p>Gross turnover deflated by appropriate quality adjusted price indices</p> <p>Turnover from survey of companies supplying these type of services or administrative data taken from tax returns which could be split by type of technical/ engineering services supplied</p> <p>Examples are:</p> <ul style="list-style-type: none"> - Architectural services - Engineering services - Other technical consultancy - Technical testing and analysis <p style="text-align: center;">Or</p> <p>Volume indicators</p> <p>Examples are:</p> <ul style="list-style-type: none"> - Number of designs commissioned - Number of surveys commissioned - Number of tests carried out - Number of billable hours
Advertising	<p>Gross turnover deflated by appropriate quality adjusted price indices</p> <p>Turnover from survey of advertising agencies or administrative data taken from tax returns which could be split by type of advertising activity.</p> <p>Examples are:</p> <ul style="list-style-type: none"> - Planning and creation of advertisements - Placement of advertisements - Provision of advertising space e.g. billboards <p style="text-align: center;">Or</p> <p>Volume indicators</p> <p>Examples are:</p> <ul style="list-style-type: none"> - Number of campaigns carried out

- Square metres of billboards rented
- Number of units of media space
- Number of newspaper/ magazine subscriptions
- Number of newspaper/ magazine single sales
- Number of billable hours

Gross turnover deflated by appropriate quality adjusted price indices

Turnover from survey of companies supplying these types of services or administrative data taken from tax returns which could be split by type of other business service supplied

Examples are:

- Labour recruitment and provision of personnel
- Investigation and security services
- Building and Industrial cleaning
- Photographic services
- Packaging activities
- Stenographic and mailing services
- Speciality design services

Weighted appropriate price indices.

Examples are:

- CPI: Film processing
- PPI: Film processing
- PPI: Recruitment agencies
- PPI: Security services
- PPI: Contract cleaning
- PPI: Contract packaging
- PPI: Stenographic services

Business activities not elsewhere classified

OR

Volume indicators

Examples are:

- Number of employees placed
- Number of man-hours of surveillance
- Number of man-hours of cleaning
- Number of firms processed
- Number of litres packaged
- Number of words typed or translated
- Number of envelopes mailed

The professional services industry can be considered as supplying unique services which are based on the sharing or using of “knowledge”. The difficulty with defining these services is that “knowledge” cannot be quantified or valued easily. The following has been summarised from the [Eurostat handbook on prices and volume measures in national accounts](#).

4.13.1 CPA 69.1 — Legal services

These services are made up of advisory and legal representation, drafting of legal documents and other services such as justice auxiliaries, receivers, giving of legal advice and assistance in registering patents, etc. A key feature of this industry is the recording of fees charged for the transfer of property as fixed capital formation.

The consumers of these services are both companies and households. The remuneration of these services can vary considerably; they can be based on contracts, fixed tariffs, fees proportional to the value of the transactions, negotiated fees or results-based fees.

The industry has two distinct institutional units; in the UK these are solicitors and barristers. The function of each of these roles differs and the price charged for their services can differ vastly.

It is easier to measure the price of standard types of services – generally those carried out by a solicitor. These are mainly for households and include activities such as drawing up contracts for buying houses, wills, marriage contracts, etc. For these types of services fixed tariffs can often exist and could be covered by the Consumer Price Index (CPI). The use of the CPI to measure these standard services would be considered an “A” method. Theoretically it is also easier to measure

the volume data for these services, that is the number of contracts drawn up. This would be considered a “B” method.

The biggest part of the output of legal services goes to gross fixed capital formation – the transfer costs of buying property. This activity can be carried out by both households and businesses but generally relates to the cost of the buildings. Therefore a price or volume index related to those buildings could be used as a proxy for the price or volume of the legal fees, as the relationship between the cost of the building and the fees charged. Where fixed fees are charged, it is sufficient enough to follow the change in this fee over time. Where the fee charged is a percentage of the price of the building, the price index should be a combination of changes in the fee percentage and the changes in the price of the building. Both these options would be considered as “B” methods.

For business to business, there are considered to be two main prices – price charged by the hour and fixed rates contracts. Approaches to measuring hourly charges would be considered a ‘B’ method. Approaches for measuring fixed rates on a contract basis – measuring the price of homogeneous contracts or a pricing model would be considered as an “A” method.

4.13.2 CPA 69.2 — Accounting, bookkeeping and auditing services; tax consulting services

Often work in this sector is routine in nature which enables output to be defined and associated quantity indicators to be identified, and prices can be observed. However, a significant part of the work will be unique and therefore be paid for on the basis of charge-out rates.

The Short Term Statistics requirement is for an aggregate Producer Price Index (PPI) that includes legal (CPA 69.1), accounting (CPA 69.2) and management consulting services (CPA 70.2). The “representative pricing” approach has been explored for these services as well. Quantity indicators may be available but are unlikely to cover the whole area.

The A method for accounting services would be to construct deflators based on contract prices for a range of the most important services provided under contract by accountants, for example, using the “representative pricing” approach. However, this would need to be regularly monitored to spot external influences changing the outputs or quality being measured. An A method can also be obtained with a model price approach, but could be a more costly approach than obtaining a broad range of contract prices, due to the volume of work required to establish and maintain a broad set of representative models.

Using quantity indicators such as the number of tax returns filed (classified by broad categories) would be a B method for part of the industry, however, keeping track of quality changes could be complicated and time consuming. Using charge-out rates or hourly fees would be a B method since it would miss out some of the productivity changes.

4.13.3 CPA 70.1 — Services of head offices

These services are by nature only consumed by businesses. There is no real market for these services, and hence there is no market price. Currently, very little data are collected on prices or volumes of head office services. Generally, only wage data are available.

Although not an A measure, the best that can be done is to apply a detailed input method, in which wages and salaries are deflated in such a way that changes in the composition of the work force are included in the volume component. In this case, this can be considered a B method.

4.13.4 CPA 70.2 — Management consulting services

These services are very heterogeneous and have in most cases the common characteristic that they are tailor-made for the client, and therefore by nature unique. The cost-bearing characteristics of the activities are furthermore probably rather similar to legal, accounting and bookkeeping services. In some cases, business and management consultancy services are included in output price indices of accounting services, since they are often difficult to separate. Very little other information is currently collected about prices or quantities of those services.

An A method for these services would be the collection of actual contract prices, however it is necessary to control for quality changes over time. For services carried out on a fee-per-hour basis the charge-out rates or hourly fees could be used to form a B method. Using as a proxy an actual output price index would also be a B method.

4.13.5 CPA 71 — Architectural and engineering services; technical testing and analysis services

Architectural and engineering contracts may cover different types of services ranging from a simple prefeasibility study to a complete study. The services may be limited to simple technical recommendations but may also entail wide-ranging responsibilities. In regards to data availability, PPIs for architectural and engineering services are now available in many EU countries.

The majority of architectural and engineering services is unique by definition. In this way, model prices seems to be a method that potentially could give an A method. Using charge-out rates or hourly fees can be considered in this case as a B method.

4.13.6 CPA 72 — Scientific research and development services

The activity of research and development (R&D) is by nature a unique activity that only takes place once. In most cases this makes ordinary price comparisons over time impossible. The output of the production process is correspondingly difficult to identify in advance. It should be noted that even projects that end up with no useful result have produced output.

An R&D product is a product of knowledge and once this knowledge has been achieved the price of achieving it again in the next period is zero. It is therefore not conceptually possible to construct a model of an R&D project that can be used for collecting “model prices”. It can be expected though that the prevailing pricing mechanism for marketed R&D is to price the hours worked by the researchers, that is a charge-out rate approach.

The value of the R&D is estimated through the summing of costs, in the absence of marketed output. Reducing these measures to volume terms and weighting them by the value of expenditures gives a measure of volume change over time.

In the main, an A method in this case does not exist. For marketed output, charge-out rates, or hourly fees should be collected and deflated by a general measure of inflation, in combination with an index of average wage rates, giving a measure in volume terms. This would be a B method.

4.13.7 CPA 73 — Advertising and market research services

There are two distinct and significant services that form the large bulk of the advertising product. In general terms these are “Placement” — the selling of advertising space, whatever the media; and ‘Creation’ — excluding associated costs such as film production or photography services. The pricing mechanism for “Placement” can be readily identified as price per second for TV advertising; this would be an A method. Quantity measures could also be used but these would need to be compiled at a very detailed and representative level with quality changes accounted for to be an A method.

The mechanism for “Creation” is a little more difficult to define since it relates to the creative thinking and planning that results in the final product, but not the associated market research or subsequent production of the advert. For creation activities, there is very little price information collected. If contract prices can be collected, then these would form an A method, however care would need to be taken in the interpretation of the collected prices to ensure they did not include production costs. Charge-out rates or hourly fees are related to the actual output in so far as “creative thinking” involves little intermediate consumption or capital, so these should be viewed as B methods.

4.13.8 CPA 74 — Other professional, scientific and technical services

This includes specialised design services (CPA 74.1), photographic services (CPA 74.2), translation and interpretation services (74.3) and other professional, scientific and technical services (74.9).

These categories will include a mix of standard services for which prices in principle can be collected, but also some services of a unique nature.

4.13.9 CPA 75 — Veterinary services

Almost all of these services are provided as market services so that the use of the appropriate component of the CPI is the recommended approach. If an adjustment is made to basic prices this is an A method, if not a B method.

5.2 Blue Book 2016 industry quality rating

Prior to the industry review process, the conceptual quality of the short-term measurement of the professional services industry was assessed according to the principles outlined in the Eurostat [Handbook on prices and volumes measures in national accounts \(2016\)](#). It should be noted that the assessments made in this report are made by ONS experts rather than Eurostat.

The Blue Book 2016 methodology used to measure professional services industry output is rated as follows:

Table 5: Eurostat quality rating as at Blue Book 2016

Industry code	Industry description	Eurostat quality rating as at Blue Book 2016
M	Professional, scientific and technical activities	B
69.1	Legal activities	B
69.2	Accounting, bookkeeping and auditing activities; tax consultancy	B

70	Activities of head offices; management consultancy activities	B
71	Architectural and engineering activities; technical testing and analysis	C
72	Scientific research and development	B
73	Advertising and market research	C
74	Other professional, scientific and technical activities	B
75	Veterinary activities	A

Source: GDP(O) Source Catalogue, 2016

The professional services industries have a range of Eurostat quality ratings, ranging from “A” “most appropriate” ratings for legal activities and veterinary activities, B “acceptable” ratings for Accounting, book keeping and auditing activities; tax consultancy; activities of head offices; management consultancy activities; scientific research and development; and other professional, scientific and technical activities; and C “requiring improvement” ratings for architectural and engineering activities; technical testing and analysis; and advertising and market research. The overall rating is based on the weakest element where that exceeds 10% of the industry. The quality ratings can be seen in the published report, [GDP\(O\) Improvement Report 2016](#).

6 International perspective

OECD

In terms of international comparisons, there are a limited number of countries which undertake the collection of data on the services industries to produce a monthly index. In 2007, the Organisation for Economic Co-operation and Development (OECD) produced guidance in the form of the [“Compilation manual for an Index of Service Production”](#).

This was compiled by representatives from the UK, South Korea, USA and Canada. These countries all have forms of publication which aim “to obtain a more accurate view of short-term economic phenomena in their services sectors”. The OECD manual provides specific methodology in terms of how the service sector should be measured in the short-term. This includes areas such as defining a framework and classification system, noting possible sources and methods and also how the index should be calculated.

Eurostat

For comparison purposes within the European Union, few member states compile a monthly Index of Services (IoS). However, work is being conducted at a European level to address this issue in the form of a taskforce between Eurostat and member states’ national statistics institutes (NSIs). Apart from the UK, the only other European countries which conduct a monthly IoS or equivalent in their respective countries are Ireland and Sweden.

A broad overview of monthly IoS measures produced by other NSIs can be found below. This is based upon information made publicly available through their respective websites (unless otherwise stated).

Ireland

Ireland’s [Monthly Services Value Index](#) (MSI) measures the changes in output at current prices in the non-financial traded services sector. The MSI is compiled and published every month by the [Central Statistics Office](#) (CSO) and has been conducted continuously since 2009. The CSO

Central Business Register provides the basis for the Short Term Statistics Register from which a sample of about 2,200 enterprises is selected.

The sole data collected from enterprises is their monthly turnover which is indexed using 2010=100 as the base. The MSI is based on the Statistical Classification of Economic Activities in the European Community Rev. 2 (2008) [that is [NACE Rev. 2](#)], and are consistent with the UK SIC 2007 classification.

Ireland's MSI reports professional, scientific and technical activities in a similar way to the UK's IoS. Industries 69-75 are each named identically in UK SIC 2007 and NACE Rev. 2. The MSI publishes figures under the broad NACE Rev. 2 industry category of "Professional, Scientific and Technical activities" (NACE 69-75), without specific divisional indices. Therefore, these estimates cannot be used for comparison purposes with the UK's IoS, which publishes separate indices for divisions 69-71 and divisions 73-75, and does not publish a monthly index for division 72 – "research and development", nor does it publish monthly data for industry M "Professional, Scientific, Technical activities" as a whole (divisions 69-75). Further detailed [methodological information](#) on the MSI is available on the [CSO website](#).

Sweden

Within Europe, the nearest comparison to the UK's IoS is the monthly Swedish ["Index of Service Production"](#). According to a [European Foundation paper](#), the professional, scientific and technical activities sector is a relatively large employer in Sweden, where it employs 7.7% of the total workforce. The index of service production provides information about the Swedish service sector and has been published since 2005 in a monthly press release, 35 days after the end of the time period in question. The Index of Service Production is also based on the EU recommended standard, NACE Rev.2.

Sweden's Index of Service Production publishes figures under the broad NACE Rev. 2 industry category of "Professional, Scientific and Technical activities" (NACE 69-75), without specific divisional indices. Therefore, these estimates cannot be used for comparison purposes with the UK's IoS, which publishes separate indices for divisions 69-71 and divisions 73-75, and does not publish a monthly index for division 72 – "research and development", nor does it publish monthly data for industry M "Professional, Scientific, Technical activities" as a whole (divisions 69-75). Further detailed methodological information on Sweden's index of service production methodology is available on the [SCB website](#), but it is not available in English.

Sweden produces a Service Producer Price Index ([SPPI](#)), which aims to measure the development of prices in Swedish industries that provide services. The producer price index for services are primarily used by the Swedish national accounts, and allows them to calculate the production value of services at constant prices on a product group level.

In Sweden, price collection for legal and accounting activities, for example, has been carried out since the first quarter of 2003. Price information is based the average invoiced hourly rate for the following categories of staff; part owner, associate with 0 to 2 years, 3 to 5 years and 6 years and more professional experience. The SPPI is based on a rotating sample with 20% of the firms replaced per annum.

NSIs from across the world meet annually to discuss service sector statistics under the banner of the "Voorburg Group". There has not been an article produced yet for the professional, scientific and technical activities as a whole, but there is some information on Veterinary services, which,

based on the information provided in the "[Turnover and Output for Veterinary Activities in Sweden](#)" paper presented at the Voorburg Group in October 2015, contained 1,269 enterprises and 3,909 employees.

Canada

The closest equivalent of index of services estimates beyond Europe is from Canada, which produces a monthly output estimate of GDP broken down by industry. The Statistics Canada website provides an overview of the methodology used to produce the [monthly gross domestic product by industry](#). The production estimates are prepared for 214 separate industries using the [North American Industrial Classification System](#) (NAICS 2007).

In terms of the NAICS 2007 classification, there are 9 groups that make up NAICS [sector 54](#) 'Professional, scientific and technical activities'; [5411](#) – Legal services, [5412](#) – Accounting, tax preparation, bookkeeping and payroll services, [5413](#) – Architectural engineering and related services, [5414](#) – specialized design activities, [5415](#) – Computer systems design and related services, [5416](#) – Management, scientific and technical consulting services, [5417](#) – Scientific research and development services, [5418](#) - Advertising, public relations and related services, [5419](#) – Other professional, scientific and technical activities.

Table 6 provides a summary of the methods and data sources used by Statistics Canada to produce the national monthly gross domestic product for professional services.

Table 6: [Methods and sources](#) for professional, scientific and technical activities

Code	Industry name	Type of indicators	Methods and data sources
5411	Legal services	Gross output	Various indicators related to legal services, Canadian Centre for Justice Statistics Division, Office of the Superintendent of Bankruptcy Canada, Demography Division, Industry Canada, Canadian Real Estate Association, Canada Mortgage and Housing Corporation.
5412	Accounting, tax preparation, bookkeeping and payroll services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
5413	Architectural, engineering and related services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
5414	Specialized design services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
5415	Computer systems design and related services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
5416	Management, scientific and technical consulting services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
5417	Scientific research and development services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
5418	Advertising, public relations, and related services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .

5419	Other professional, scientific and technical services	Employment	Number of employees, Survey of Employment, Payrolls and Hours, Record no. 2612 .
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There are a few differences in the activities that are included in sector 54 in NAICS, and UK SIC sector M – “professional, technical and scientific activities”. For example, the UK includes in this industry 70.1 “activities of head offices”, whereas the NAICS equivalent (551114 – “head offices”) is categorised in a separate sector: sector 55 – [“Management of companies and enterprises”](#). Also, NAICS 2007 includes “Computer systems design and related services” in professional, scientific and technical services, whereas the UK SIC equivalent “Computer programming, consultancy and related activities” (SIC Code 62) is categorised under Section J – “Information and communication”.

As a result of these differences (amongst others), comparability between the “Professional, scientific and technical activities” industry in UK SIC 2007 and NAICS 2007 form is limited. More information on the comparability between NAICS 2007 and UK SIC 2007 is available from the [United States Bureau of Labour Statistics](#).

7 Issues identified during the industry review

As part of the industry review, various areas were investigated in order to ascertain whether the existing methodology is sufficient and meets the internationally recognised guidance. This section will discuss any issues that have been identified as part of this review; under the following sub-headings:

- conceptual appropriateness of the current price data sources
- conceptual appropriateness of the deflators
- significant changes in the industries

The issues will be addressed in turn; however, they are not listed in any particular order of preference or priority.

The main messages from the professional services industry review are:

- Conceptual appropriateness of the current price data source - the current price turnover series collected by the Monthly Business Survey (MBS) for measuring the professional services industries listed below, are conceptually appropriate:
 - 69.1 Legal activities
 - 69.2 Accounting, bookkeeping and auditing activities; tax consultancy
 - 70.2 Management consultancy activities
 - 71 Architectural and engineering activities; technical testing and analysis
 - 72 Scientific research and development
 - 73 Advertising and market research
 - 74 Other professional, scientific and technical activities; and
 - 75 Veterinary activities

- Conceptual appropriateness of the deflator – the industry review has concluded that the current deflators should be replaced with Services Producer Price Index (SPPI) deflators, where these are available, as all SPPI's were designated as National Statistics following their assessment by the UK Statistics Authority in 2014. Previously, newly-developed SPPIs were Experimental Statistics and, therefore, were not used in National Accounts. SPPIs are available for legal activities (69.1); accounting, book keeping & auditing activities; tax consultancy (69.2); architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73). Where SPPIs are not available e.g. for activities of head offices (70.1); management consultancy activities (70.2); scientific research and development (72M & 72NM); other professional, scientific and technical activities (74); and veterinary activities (75) the current deflators should be retained. These industries use AWE/CPIY as deflators, except for veterinary services which uses CPI (which is 'A' rated that is 'most appropriate'). The rationale for the use of AWE/CPIY is that AWE is used to reflect the labour costs which are normally a high proportion of the output price (the most refined level available is used, which are section level series, as lower level data are not published); and CPIY is used as a measure of the other costs of goods and services that would be used in providing the services (CPIY is used to achieve a basic price concept as it excludes VAT). The 50:50 weighting is a default position used in the absence of other reliable information (in any case, AWE and CPIY usually tend to move in the same way).
- Significant changes in the industries – overall, the review did not reveal significant change in the professional services industries, but it did raise a number of questions regarding the weighting of the market and non market output of the scientific research and development industry. This has an equal weighting (50:50), as recommended by the previous industry review, Research and Development Industry Review (2007), which examined a range of options for weights, with the average of the weights for all the options being close to the recommended equal (50:50) weighting. Currently, the ONS Business Expenditure on Research and Development (BERD) and Gross Expenditure on Research and Development (GERD) surveys, as well as a report by the Department of Business, Innovation and Skills (BIS), (2015) What is the relationship between public and private investment in science, research and innovation?, which is based on data from BERD, GERD, and other sources and studies, estimates the split in investment in research and development between the private and public sectors as in the region of 65:35 to 70:30, depending on the definition used. However, the ONS balanced Supply and Use Tables (SUT), which are an established source of data on which to calculate weights, estimate the ratio between market and non-market output for the scientific research and development industry as 97:3. The difference in market and non-market weighting, depending on the source used, raises a number of conceptual questions with regard to the most appropriate source to be used for calculating weights, which require further investigation, analysis and discussion.

Recommendations which have provisionally been suggested for implementation in Blue Book 2018 are as follows:

1. The current professional services average weekly earnings (AWE) deflators should be replaced with Services Producer Price Index (SPPI) deflators, where these are available. SPPIs are available for legal activities (69.1); accounting, bookkeeping and auditing activities; tax consultancy (69.2); architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73).
2. The weights for the output of the scientific research and development industry in terms of the market and non-market output split, which is currently equally (50:50) weighted should be the subject of a further in-depth review to examine the conceptual appropriateness of a range of

options for weighting. It is recommended that this review should be completed for implementation in Blue Book 2018, along with recommendation 1.

8 Impact on Blue Book Methodology

Table 7: Comparison of Blue Book 2016 and Blue Book 2018 GDP(O) data sources for section M, covering division 69 to 75 (following implementation of industry review recommendations)

Blue Book 2016					Blue Book 2018				
Industry code	Industry descript'n	Current price	Volume measure	Deflator	Industry code	Industry descript'n	Current price	Volume measure	Deflator
69.1	Legal activities	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price Index ^Y	69.1	Legal activities	Monthly Business Survey turnover index	Derived	Services Producer Price Index for legal activities and Consumer Price Index ^Y
69.2	Accounting, bookkeeping and auditing activities; tax consultancy	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price Index ^Y	69.2	Accounting, bookkeeping and auditing activities; tax consultancy	Monthly Business Survey turnover index	Derived	Services Producer Price Index for accounting bookkeeping and auditing activities; tax consultancy activities and Consumer Price Index ^Y
70.1	Activities of head offices	Derived	Work Force Jobs	Annual Weekly Earnings and Consumer Price Index ^Y	70.1	Activities of head offices	Derived	Work Force Jobs*	Annual Weekly Earnings and Consumer Price Index ^Y
70.2	Management consultancy activities	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price Index ^Y	70.2	Management consultancy activities	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price Index ^Y
71	Architectural and engineering activities; technical testing and analysis	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price Index ^Y	71	Architectural and engineering activities; technical testing and analysis	Monthly Business Survey turnover index	Derived	Services Producer Price Index for architectural and engineering activities; technical

									testing and analysis and Consumer Price IndexY
72M	Scientific research and development market sector	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price IndexY	72M	Scientific research and development market sector	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price IndexY
72NM	Scientific research and development non market sector	Derived	Work Force Jobs	Annual Weekly Earnings and Consumer Price IndexY	72NM	Scientific research and development non market sector		Derived	Annual Weekly Earnings and Consumer Price IndexY
73	Advertising and market research	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price IndexY	73	Advertising and market research	Monthly Business Survey turnover index	Derived	Services Producer Price Index for Advertising and market research and Consumer Price IndexY
74	Other professional, scientific and technical activities	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price IndexY	74	Other professional, scientific and technical activities	Monthly Business Survey turnover index	Derived	Annual Weekly Earnings and Consumer Price IndexY
75	Veterinary activities	Monthly Business Survey turnover index	Derived	Consumer Price Index	75	Veterinary activities	Monthly Business Survey turnover index	Derived	Consumer Price Index

9 Impact on Blue Book Quality Ratings

The conceptual quality of the short-term measurement of the professional services industry was assessed according to the principles outlined in the Eurostat [Handbook on prices and volumes measures in national accounts \(2016\)](#). It should be noted that the assessments made in this report are made by ONS experts rather than Eurostat.

Table 8 shows the impact on the quality ratings of the changes recommended to the professional services industries. As a result of the implementation of the recommendations of the report for changes to methods and data sources, the conceptual quality of some of the professional services industries will improve. The ratings for legal activities (69.1) and accounting, book keeping and auditing activities; tax consultancy (69.2) move from B “acceptable” to A, “most appropriate” ratings; and the ratings for architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73) move from C, “in need of improvement” ratings to A “most appropriate” ratings. The changes to the conceptual quality ratings of professional services will be subject to further review and confirmation at implementation.

Table 8: Eurostat quality ratings at Blue Book 2016 and Blue Book 2018

Industry code	Industry description	Eurostat quality rating at Blue Book 2016	Eurostat quality rating at Blue Book 2018
M	Professional, scientific and technical activities		
69.1	Legal activities	B	A
69.2	Accounting, bookkeeping and auditing activities; tax consultancy	B	A
70	Activities of head offices; management consultancy activities	B	B
71	Architectural and engineering activities; technical testing and analysis	C	A
72	Scientific research and development	B	B
73	Advertising and market research	C	A
74	Other professional, scientific and technical activities	B	B
75	Veterinary activities	A	A

10 User engagement

During the industry review process, consultations took place with a range of internal and external stakeholders. These consultations provided an opportunity to contribute to the continued improvement of the methods and sources used in the measurement of professional services within the output approach to gross domestic product (GDP(O)). Consultation meetings took place with some important external bodies namely, Office for Budget Responsibility (OBR), Her Majesty's Treasury (HMT), the Bank of England (BoE). The aim of these meetings was to seek feedback on the proposed sources and methodology used to compile the indicators for professional services. The industry review process has also been regularly communicated to the [Short-Term Output Indicator stakeholder group](#). This group includes representatives from the BoE, HMT, and OBR, who are kept closely informed of progress.

Final recommendations were discussed and approved by the GDP(O) Improvement Project Board, which is attended by senior managers and important ONS stakeholders within national accounts. The board ensures that the quality and methodology underpinning the outputs have kept pace with changing sources and methods. For further details of external consultation visits and user engagement articles, please see Annex C.

11 Recommendations

Recommendations which have been provisionally suggested for implementation in Blue Book 2018 are as follows:

1. The current professional services average weekly earnings (AWE) deflators should be replaced with Services Producer Price Index (SPPI) deflators, where these are available. SPPIs are available for legal activities (69.1); accounting, bookkeeping & auditing activities; tax consultancy (69.2); architectural and engineering activities; technical testing and analysis (71); and advertising and market research (73).

2. The weights for the output of the scientific research and development industry in terms of the market and non-market output split, which is currently equally (50:50) weighted should be the subject of a further in-depth review to examine the conceptual appropriateness of a range of options for weighting. It is recommended that this review should be completed for implementation in Blue Book 2018, along with recommendation 1.

12 References

- Department for Business, Innovation and Skills (2015) [What is the relationship between public and private investment in science, research and innovation?](#)
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13 Glossary

Acronym	Full Title
A	Annual
ABIns	Association of British Insurers
Adj	Adjusted
AWE	Average Weekly Earnings survey
BIS	Business, Innovation and Skills
BoE	Bank of England
BRES	Business Register and Employment Survey
CPA	Classification of Products by Activity
CPI	Consumer Price Index
CSPI	Corporate Services Price Index
CVM	Chained Volume Measure
Derived	Data is sourced from two other variables - e.g. Volume = current price/deflator
ESA	European System of Accounts
EU	European Union
GDP	Gross Domestic Product
GDP(O)	Output approach to measuring Gross Domestic Product
GVA	Gross Value Added
FINCO	Financial Corporations
FIRS	Financial Institutions Register Survey

FISIM	Financial intermediation services indirectly measured
FTSE	Financial Times Stock Exchange
GDP(E)	Expenditure approach to measuring Gross Domestic Product
GDP(O)	Output approach to measuring Gross Domestic Product
GGFCE	General Government Final Consumption Expenditure
GVA	Gross Value Added
HMRC	HM Revenue and Customs
HMT	Her Majesty's Treasury
IDBR	Inter-Departmental Business Register
Implied	See derived
IoP	Index of Production
IoS	Index of Services
M	Monthly
MBS	Monthly Business Survey
mGDP	Name of part of the processing system (monthly GDP)
MSI	Monthly Services Value Index
NACE	European Classification of Economic Activities
NAICS	North American Industrial Classification System
n.e.c.	Not elsewhere classified
NSI	National Statistical Institutes
OBR	Office for Budget Responsibility
OECD	Organisation for Economic Co-operation and Development
ONS	Office for National Statistics
PAYE	Pay As You Earn
PPI	Producer Price Index
PPT	Parts per thousand
SIC	Standard Industrial Classification
SPPI	Service Producer Price Index
SUT	Supply Use Tables

UK	United Kingdom
USA	United States of America
VAT	Value Added Tax

Annex A: UK Standard Industrial Classification 2007 description for professional services activities

Section M Professional, Scientific and Technical Activities

This section includes specialised professional, scientific and technical activities. These activities require a high degree of training, and make specialised knowledge and skills available to users.

69 Legal and accounting activities

This division includes legal representation of one party's interest against another party, whether or not before courts or other judicial bodies by, or under supervision of, persons who are members of the bar, such as advice and representation in civil cases, advice and representation in criminal actions, advice and representation in connection with labour disputes.

It also includes preparation of legal documents such as articles of incorporation, partnership agreements or similar documents in connection with company formation, patents and copyrights, preparation of deeds, wills, trusts, etc. as well as other activities of notaries public, civil law notaries, bailiffs, arbitrators, examiners and referees.

It also includes accounting and bookkeeping services such as auditing of accounting records, preparing financial statements and bookkeeping.

69.1 Legal activities

69.10 Legal activities

This class includes:

legal representation of one party's interest against another party, whether or not before courts or other judicial bodies by, or under supervision of, persons who are members of the bar:

- advice and representation in civil cases
- advice and representation in criminal cases
- advice and representation in connection with labour disputes
- general counselling and advising, preparation of legal documents:
- articles of incorporation, partnership agreements or similar documents in connection with company formation
- patents and copyrights
- preparation of deeds, wills, trusts etc.
- other activities of notaries public, civil law notaries, bailiffs, arbitrators, examiners and referees

This class excludes:

— *law court activities, see 84.23*

69.10/1 Barristers at law

This subclass includes:

- members of the legal profession who have been called to the bar
- Advocates of the Scottish Bar

This subclass excludes:

— *law court activities, see 84.23*

69.10/2 Solicitors

This subclass includes:

- members of the legal profession qualified to deal with:
 - conveyancing
 - drawing up of wills
 - advising clients on legal matters
 - instructing barristers, etc.

69.10/9 Activities of patent and copyright agents; other legal activities (other than those of barristers and solicitors) n.e.c.

This subclass includes:

- preparation, drawing up and certification activities
- the provision of advice regarding patents and copyrights
- other legal activities not elsewhere classified
- activities of notaries, bailiffs, arbitrators, examiners and referees etc.

This subclass excludes:

— *law court activities, see 84.23*

69.2 Accounting, bookkeeping and auditing activities; tax consultancy

69.20 Accounting, bookkeeping and auditing activities; tax consultancy

69.20/1 Accounting, and auditing activities

This subclass includes:

- preparation or auditing of — f financial accounts
- examination of accounts and certification of their accuracy

This subclass excludes:

— *management consultancy on accounting systems, budgetary control procedures, see 70.22*

— *bill collection, see 82.91*

69.20/2 Bookkeeping activities

This subclass includes:

- recording of commercial transactions from businesses or others

This subclass excludes:

— *data-processing and tabulation activities, see 63.11*

— *management consultancy on accounting systems, budgetary control procedures, see 70.22*

— *bill collection, see 82.91*

69.20/3 Tax consultancy

This subclass includes:

- preparation of personal and business income tax returns
- advisory activities and representation on behalf of clients before tax authorities

This subclass excludes:

— *data-processing and tabulation activities, see 63.11*

— *management consultancy on accounting systems, budgetary control procedures, see 70.22*

— *bill collection, see 82.91*

70 Activities of head offices; management consultancy activities

This division includes the provision of advice and assistance to businesses and other organisations on management issues, such as strategic and organisational planning; financial planning and budgeting; marketing objectives and policies; human resource policies, practices, and planning; production scheduling; and control planning. It also includes the overseeing and managing of other units of the same company or enterprise, that is, the activities of head offices.

70.1 Activities of head offices

70.10 Activities of head offices

This class includes the overseeing and managing of other units of the company or enterprise; undertaking the strategic or organisational planning and decision making role of the company or enterprise; exercising operational control and managing the day-to-day operations of their related units.

This class includes activities of:

- head offices
- centralised administrative offices
- corporate offices
- district and regional offices
- subsidiary management offices

This class excludes:

- *activities of holding companies, not engaged in managing, see 64.20*

70.2 Management consultancy activities

70.21 Public relations and communication activities

This class includes the provision of advice, guidance and operational assistance, including lobbying activities, to businesses and other organisations on public relations and communication.

This class excludes:

- *advertising agencies and media representation services, see 73.1*
- *market research and public opinion polling, see 73.20*

70.22 Business and other management consultancy activities

70.22/1 Financial management

This subclass includes the provision of advice, guidance and operational assistance to businesses and other organisations on issues such as cost reduction and other financial issues; compensation and retirement strategies.

This may include advice, guidance or operational assistance to businesses and the public service regarding: design of accounting methods or procedures, cost accounting programmes, budgetary control procedures

This subclass excludes:

- *design of computer software for accounting systems, see 62.01*
- *accounting, bookkeeping and auditing activities, tax consulting, see 69.20*

70.22/9 Management consultancy activities (other than financial management)

This subclass includes the provision of advice, guidance and operational assistance to businesses and other organisations on management issues, such as corporate strategic and organisational planning, business process re-engineering, change management, marketing objectives and policies; human resource policies, practices and planning; production scheduling and control planning.

This provision of business services may include advice, guidance or operational assistance to businesses and the public service regarding:

- advice and help to businesses and public services in planning, organisation, efficiency and control, management information etc.

This subclass excludes:

- *legal advice and representation, see 69.10*
- *architectural and engineering advisory activities, see 71.11, 71.12*
- *environmental, agronomy, security and similar consulting activities, see 74.90*
- *executive placement or search consulting activities, see 78.10*
- *educational consulting activities, see 85.60*

71 Architectural and engineering activities; technical testing and analysis

This division includes the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services. It also includes the performance of physical, chemical, and other analytical testing services.

71.1 Architectural and engineering activities and related technical consultancy

This group includes the provision of architectural services, engineering services, drafting services, building inspection services and surveying and mapping services and the like.

71.11 Architectural activities

71.11/1 Architectural activities

This subclass includes:

- architectural consulting activities:
 - building design and drafting
 - supervision of construction

This subclass excludes:

- *activities of computer consultants, see 62.02, 62.09*
- *interior decorating, see 74.10*

71.11/2 Urban planning and landscape architectural activities

This subclass includes:

- town and city planning and landscape architecture

71.12 Engineering activities and related technical consultancy

71.12/1 Engineering design activities for industrial process and production

This subclass comprises engineering design (that is applying physical laws and principles of engineering in the design of machines, materials, instruments, structures, processes and systems) for industrial process and production. It includes:

- drawing up of preliminary drafts, project development, specification of plans of execution or exact specifications on behalf of

the contracting authority for the construction of industrial process and production

This subclass excludes:

— *industrial design, see 74.10*

71.12/2 Engineering-related scientific and technical consulting activities

This subclass comprises the provision of surveying and mapping services and the like. It includes:

geophysical, geologic and seismic surveying

— geological and prospecting activities:

■ surface measurements and observations designed to yield information on sub-surface structure and the location of petroleum, natural gas and mineral deposits and of ground water

— geodetic surveying activities:

■ land and boundary surveying activities

■ hydrologic surveying activities

■ subsurface surveying activities

■ cartographic and spatial information activities

This subclass excludes:

— *test drilling in connection with mining operations, see 09.10, 09.90*

— *development or publishing of associated software, see 58.29, 62.01*

— *activities of computer consultants, see 62.02, 62.09*

— *technical testing, see 71.20*

— *research and development activities related to engineering, see 72.19*

— *aerial photography, see 74.20*

71.12/9 Other engineering activities (not including engineering design for industrial process and production or engineering related scientific and technical consulting activities)

This subclass comprises the provision of architectural engineering services, drafting services, building inspection services and surveying and mapping services and the like. It includes:

— engineering design (that is applying physical laws and principles of engineering in the design of machines, materials, instruments, structures, processes and systems) and consulting activities for:

■ projects involving civil engineering, hydraulic engineering, traffic engineering

■ projects elaboration and realisation relative to electrical and electronic engineering, mining engineering, chemical engineering, mechanical, industrial and systems engineering, safety engineering

■ water management projects

— elaboration of projects using air conditioning, refrigeration, sanitary and pollution control engineering, acoustical engineering etc.

— machinery and industrial plan design, other than for industrial process and production

This subclass also includes:

— integrated engineering activities for turnkey projects

This subclass excludes:

— *engineering design activities for industrial process and production, see 71.12/1*

71.2 Technical testing and analysis

71.20 Technical testing and analysis

This class includes the performance of physical, chemical and other analytical testing of all types of materials and products, such as:

■ acoustics and vibration testing

■ testing of composition and purity of minerals etc.

■ testing activities in the field of food hygiene, including veterinary testing and control in relation to food production

■ testing of physical characteristics and performance of materials, such as strength, thickness, durability, radioactivity etc.

■ qualification and reliability testing

■ performance testing of complete machinery: motors, automobiles, electronic equipment etc.

■ radiographic testing of welds and joints

■ failure analysis

■ testing and measuring of environmental indicators: air and water pollution etc.

— certification of products, including consumer goods, motor vehicles, aircraft, pressurised containers, nuclear plants etc.

— periodic road-safety testing of motor vehicles

— testing with use of models or mock-ups (for example, of aircraft, ships, dams etc.)

— operation of police laboratories

This class excludes:

— *testing of animal specimens, see 75.00*

— *diagnostic imaging, testing and analysis of medical and dental specimens, see 86*

72 Scientific research and development

This division includes the activities of three types of research and development: 1) basic research: experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundations of phenomena and observable facts, without particular application or use in view, 2) applied research: original investigation undertaken in order to acquire new knowledge, directed primarily towards a specific practical aim or objective and 3) experimental development: systematic work, drawing on existing knowledge gained from research and/or practical experience, directed to producing new materials, products and devices, to installing new processes, systems and services, and to improving substantially those already produced or installed. Research and experimental development activities in this division are subdivided into two categories: natural sciences and engineering; social sciences and the humanities.

This division excludes:

— *market research, see 73.20*

72.1 Research and experimental development on natural sciences and engineering

This group comprises basic research, applied research, experimental development in natural sciences and engineering.

72.11 Research and experimental development on biotechnology

This class includes research and experimental development on biotechnology:

— DNA/RNA: genomics, pharmacogenomics, gene probes, genetic engineering, DNA/RNA sequencing/synthesis/amplification, gene expression profiling, and use of antisense technology

- proteins and other molecules: sequencing/synthesis/engineering of proteins and peptides (including large molecule hormones); improved delivery methods for large molecule drugs; proteomics, protein isolation and purification, signalling, identification of cell receptors
- cell and tissue culture and engineering: cell/tissue culture, tissue engineering (including tissue scaffolds and biomedical engineering), cellular fusion, vaccine/immune stimulants, embryo manipulation
- process biotechnology techniques: fermentation using bioreactors, bioprocessing, bioleaching,
- biopulping, bioleaching, biodesulphurisation, bioremediation, biofiltration and phytoremediation
- gene and RNA vectors: gene therapy, viral vectors
- bioinformatics: construction of databases on genomes, protein sequences; modelling complex biological processes, including systems biology
- nanobiotechnology: applies the tools and processes of nano/microfabrication to build devices for studying biosystems and applications in drug delivery, diagnostics etc.

72.19 Other research and experimental development on natural sciences and engineering

This class includes:

- research and experimental development on natural science and engineering other than biotechnological research and experimental development:

- research and development on natural sciences
- research and development on engineering and technology
- research and development on medical sciences
- research and development on agricultural sciences
- interdisciplinary research and development, predominantly on natural sciences and engineering

72.2 Research and experimental development on social sciences and humanities

72.20 Research and experimental development on social sciences and humanities

This class includes:

- research and development on social sciences
- research and development on humanities
- interdisciplinary research and development, predominantly on social sciences and humanities

This class excludes:

- *market research, see 73.20*

73 Advertising and market research

This division includes the creation of advertising campaigns and placement of such advertising in periodicals, newspapers, radio and television, or other media as well as the design of display structures and sites.

73.1 Advertising

73.11 Advertising agencies

This class includes the provision of a full range of advertising services (that is through in-house capabilities or subcontracting), including advice, creative services, production of advertising material, and buying. It includes:

- advertising campaigns:
 - creating and placing advertising in newspapers, periodicals, radio, television, the Internet and other media
 - creating and placing of outdoor advertising, for example, billboards, panels, bulletins and frames, window dressing, showroom design, car and bus carding etc.
 - aerial advertising
 - distribution or delivery of advertising material or samples
 - creation of stands and other display structures and sites
- conducting marketing campaigns and other advertising services aimed at attracting and retaining customers
 - promotion of products
 - point-of-sale marketing
 - direct mail advertising
 - marketing consulting

This class excludes:

- *publishing of advertising material, see 58.19*
- *production of commercial messages for television and film, see 59.11*
- *production of commercial messages for radio, see 59.20*
- *market research, see 73.20*
- *advertising photography, see 74.20*
- *convention and trade show organisers, see 82.30*
- *mailing activities, see 82.19*

73.12 Media representation

This class includes:

- media representation, meaning sale or re-sale of time and space for various media soliciting advertising

This class excludes:

- *sale of advertising time or space directly by owners of the time or space (publishers etc.), see the corresponding activity class*
- *public-relations activities, see 70.21*

73.2 Market research and public opinion polling

73.20 Market research and public opinion polling

This class includes:

- investigation into market potential, awareness, acceptance and familiarity of goods and services and buying habits of consumers for the purpose of sales promotion and development of new goods and services, including statistical analyses of the results
- investigation into collective opinions of the public about political, economic and social issues and statistical analysis thereof

74 Other professional, scientific and technical activities

This division includes the provision of professional scientific and technical services (except legal and accounting activities; architecture and engineering activities; technical testing and analysis; management and management consultancy activities;

research and development and advertising activities).

74.1 Specialised design activities

74.10 Specialised design activities

This class includes:

- fashion design related to textiles, wearing apparel, shoes, jewellery, furniture and other interior decoration and other fashion goods as well as other personal or household goods
- industrial design, that is creating and developing designs and specifications that optimise the use, value and appearance of products, including the determination of the materials, mechanism, shape, colour and surface finishes of the product, taking into consideration human characteristics and needs, safety, market appeal in distribution, use and maintenance
- activities of graphic designers
- activities of interior decorators

This class excludes:

- *design and programming of web pages, see 62.01*
- *architectural design, see 71.11*
- *engineering design, such as applying physical laws and principles of engineering in the design of machines, materials, instruments, structures, processes and systems, see 71.12*

74.2 Photographic activities

74.20 Photographic activities

74.20/1 Portrait photographic activities

This subclass includes:

portrait photography for passports, schools, weddings etc.

This subclass excludes:

- *operation of coin operated (self-service) photo machines, see 96.09*

74.20/2 Other specialist photography (not including portrait photography)

This subclass includes:

- aerial photography
- photographing of persons, objects or scenery using special apparatus and techniques, for example
 - underwater photography
 - medical and biological photography
 - photomicrography
 - microfilming of documents

This subclass excludes:

- *cartographic and spatial information activities, see 71.12*

74.20/3 Film processing

This subclass includes:

- developing, printing and enlarging from client-taken negatives or cine-films
- film developing and photo printing laboratories
- one hour photo shops (not part of camera stores)
- mounting of slides
- copying and restoring or transparency retouching in connection with photographs

This subclass excludes:

- *processing motion picture film related to the motion picture and television industries, see 59.12*

74.20/9 Other photographic activities (not including portrait and other specialist photography and film processing) n.e.c.

This subclass includes:

- photography for commercials, publishers, fashion, real estate or tourism purposes
- videotaping of events: weddings, meetings etc.
- activities of photojournalists

74.3 Translation and interpretation activities

74.30 Translation and interpretation activities

74.9 Other professional, scientific and technical activities n.e.c.

74.90 Other professional, scientific and technical activities n.e.c.

This class includes a great variety of service activities generally delivered to commercial clients. It includes those activities for which more advanced professional, scientific and technical skill levels are required, but does not include ongoing, routine business functions that are generally of short duration.

74.90/1 Environmental consulting activities

This subclass includes:

- consulting activities for environmental projects

74.90/2 Quantity surveying activities

This subclass excludes:

- *research and development activities, see 72*

74.90/9 Other professional, scientific and technical activities (not including environmental consultancy or quantity surveying) n.e.c.

This subclass includes:

- business brokerage activities, meaning arranging for the purchase and sale of small and medium-sized businesses, including professional practices, but not including real estate brokerage — purchase and sale of patents)
- appraisal activities other than for real estate and insurance (for antiques, jewellery, etc.)
- bill auditing and freight rate information
- weather forecasting activities
- security consultants
- agronomy consulting
- other technical consulting
- activities of consultants other than architecture, engineering, environment and management consultants

This subclass also includes:

— activities carried out by agents and agencies on behalf of individuals usually involving the obtaining of engagements in motion picture, theatrical production or other entertainment or sports attractions and the placement of books, plays, artworks, photographs etc., with publishers, producers etc.

This subclass excludes:

- *wholesale of used motor vehicles by auctioning, see 45.1*
- *online auction activities (retail), see 47.91*
- *activities of auctioning houses (retail), see 47.79*
- *activities of real estate brokers, see 68.31*
- *activities of environmental consultants, see 74.90/1*
- *activities of quantity surveyors, see 74.90/2*
- *bookkeeping activities, see 69.20*
- *activities of management consultants, see 70.22*
- *activities of architecture and engineering consultants, see 71.1*
- *industrial and machinery design, see 71.12, 74.10*
- *veterinary testing and control in relation to food production, see 71.20*
- *display of advertisement and other advertising design, see 73.11*
- *creation of stands and other display structures and sites, see 73.11*
- *activities of convention and trade show organisers, see 82.30*
- *activities of independent auctioneers, see 82.99*
- *administration of loyalty programmes, see 82.99*
- *consumer credit and debt counselling, see 88.99*

75 Veterinary activities

This division includes the provision of animal health care and control activities for farm animals or pet animals. These activities are carried out by qualified veterinarians in veterinary hospitals as well as when visiting farms, kennels or homes, in own consulting and surgery rooms or elsewhere. It also includes animal ambulance activities.

75.0 Veterinary activities

75.00 Veterinary activities

This class includes:

- animal health care and control activities for farm animals
- animal health care and control activities for pet animals

These activities are carried out by qualified veterinarians when working in veterinary hospitals as well as when visiting farms, kennels or homes, in own consulting and surgery rooms or elsewhere.

This class also includes:

- activities of veterinary assistants or other auxiliary veterinary personnel
- clinico-pathological and other diagnostic activities pertaining to animals
- animal ambulance activities

This class excludes:

- *farm animal boarding activities without health care, see 01.62*
- *sheep shearing, see 01.62*
- *herd testing services, droving services, agistment activities, poultry caponising, see 01.62*
- *activities related to artificial insemination, see 01.62*
- *pet animal boarding activities without health care, see 96.09*

Annex B: IDBR Analysis for Section M, Divisions 69, 70, 71, 72, 73, 74 and 75 (2015 and 2014).

The tables below are extracts from the Inter-Departmental Business Register (IDBR) publication '[UK Business: Activity, size and location: 2015](#)' for divisions 69 to 75 (UK SIC 2007).

2015	Table Population : UK Business Entities Unit : Business Entities, Count		
Turnover	6910 : Legal Activities	6920 : Accounting, bookkeeping and auditing activities; tax consultancy	69: Total
£0-49 (Thousands)	3,805	12,140	15,945
£50-99 (Thousands)	7,110	12,700	19,810
£100-249 (Thousands)	10,255	10,370	20,625
£250-499 (Thousands)	4,660	3,045	7,705
£500-999 (Thousands)	2,840	1,645	4,485
£1000-1999 (Thousands)	1,565	820	2,385
£2000-4999 (Thousands)	970	425	1,395
£5000-9999 (Thousands)	350	135	485
£10000- 49999 (Thousands)	300	120	420
£50000 (Thousands)	85	35	120
Total	31,940	41,435	73,375

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7010 :Activities of head office	7021 : Public relations and communications activities	7022: Business and other management consultancy activities	70: Total
£0-49 (Thousands)	1,620	680	27,495	29,795
£50-99 (Thousands)	135	1,425	43,895	45,455
£100-249 (Thousands)	530	1,115	63,915	64,560
£250-499 (Thousands)	485	345	8,915	9,745
£500-999 (Thousands)	300	235	4,475	5,010
£1000-1999 (Thousands)	150	140	2,360	2,650
£2000-4999 (Thousands)	65	90	1,420	1,575
£5000-9999 (Thousands)	35	40	455	530
£10000-49999 (Thousands)	30	30	390	450
£50000 (Thousands)	10	5	90	105
Total	3,360	4,105	153,410	160,875

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7111 :Architectural activities	7112 : Engineering activities and related technical consultancy	7120: Technical testing and analysis	71: Total
£0-49 (Thousands)	4,085	10,570	775	15,430
£50-99 (Thousands)	4,245	28,385	2,435	35,065
£100-249 (Thousands)	3,720	25,585	1,540	30,845
£250-499 (Thousands)	1,170	4,100	340	5,610
£500-999 (Thousands)	720	2,515	275	3,510
£1000-1999 (Thousands)	385	1,535	170	2,090
£2000-4999 (Thousands)	220	1,065	120	1,405
£5000-9999 (Thousands)	90	425	45	560
£10000-49999 (Thousands)	50	355	35	440
£50000 (Thousands)	15	110	15	140
Total	14,700	74,645	5,750	95,095

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7211 :Research and experimental development on biotechnology	7219 : Other research and experimental development on natural sciences and engineering	7220: Research and experimental development on social sciences and humanities	72: Total
£0-49 (Thousands)	190	775	95	1,060
£50-99 (Thousands)	175	825	130	1,130
£100-249 (Thousands)	140	930	130	1,200
£250-499 (Thousands)	65	270	40	375
£500-999 (Thousands)	30	225	40	295
£1000-1999 (Thousands)	20	155	20	195
£2000-4999 (Thousands)	15	165	15	195
£5000-9999 (Thousands)	5	60	5	70
£10000-49999 (Thousands)	5	100	5	110
£50000 (Thousands)	5	50	0	55
Total	650	3,555	480	4,685

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7311 :Advertising agencies	7312 : Media representation	7320: Market research and public opinion polling	73: Total
£0-49 (Thousands)	3,185	680	600	4,465
£50-99 (Thousands)	3,430	645	655	4,730
£100-249 (Thousands)	4,565	945	870	6,380
£250-499 (Thousands)	1,870	370	410	2,650
£500-999 (Thousands)	1,110	210	285	1,605
£1000-1999 (Thousands)	680	125	195	1,000
£2000-4999 (Thousands)	465	85	130	680
£5000-9999 (Thousands)	220	35	60	315
£10000-49999 (Thousands)	190	20	55	165
£50000 (Thousands)	60	15	15	90
Total	15,775	3,130	3,275	22,180

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2015	Table Population : UK Business Entities Unit : Business Entities, Count				
Turnover	7410: Specialised design activities	7420: Photographic activities	7430: Translation and interpretation activities	7490: Other professional, scientific and technical activities n.e.c.	74: Total
£0-49 (Thousands)	4,665	2,865	725	5,245	13,500
£50-99 (Thousands)	8,005	2,450	335	15,465	25,255
£100-249 (Thousands)	5,255	1,875	210	17,550	24,890
£250-499 (Thousands)	1,710	445	50	4,185	6,390
£500-999 (Thousands)	955	160	30	1,475	2,620
£1000-1999 (Thousands)	490	100	15	630	1,235
£2000-4999 (Thousands)	250	65	10	330	655
£5000-9999 (Thousands)	70	15	5	110	200
£10000-49999 (Thousands)	40	10	0	100	150
£50000 (Thousands)	5	0	0	15	20
Total	21,445	7,985	1,380	45,105	75,915

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2015	Table Population : UK Business Entities Unit : Business Entities, Count
Turnover	75 : Veterinary activities
£0-49 (Thousands)	340
£50-99 (Thousands)	595
£100-249 (Thousands)	575
£250-499 (Thousands)	580
£500-999 (Thousands)	700
£1000-1999 (Thousands)	465
£2000-4999 (Thousands)	215
£5000-9999 (Thousands)	40
£10000- 49999 (Thousands)	15
£50000 (Thousands)	5
Total	3,530

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2015			
Table Population : UK Business Entities			
Unit : Business Entities, Count			
Emp	6910 : Legal activities	6920: Accounting; bookkeeping and auditing activities; tax consultancy	69: Total
0-4	23,775	33,135	56,910
5-9	3,495	4,850	8,345
10-19	2,315	2,170	4,485
20-49	1,425	860	2,285
50-99	515	220	735
100-249	270	110	380
250+	145	90	235
Total	31,940	41,435	73,375

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2015				
Table Population : UK Business Entities				
Unit : Business Entities, Count				
Emp	7010 : Activities of head office	7021: Public relations and communications activities	7022 : Business and other management consultancy activities	70: Total
0-4	1,960	3,360	143,675	148,995
5-9	675	375	5,690	6,740
10-19	370	210	2,510	3,090
20-49	200	105	1,010	1,315
50-99	85	40	305	430
100-249	45	10	140	195
250+	25	5	80	110
Total	3,360	4,105	153,410	160,875

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7111 : Architectural activities	7112: Engineering activities and related technical consultancy	7120 : Technical testing and analysis	71: Total
0-4	12,015	66,845	4,780	83,640
5-9	1,475	3,940	440	5,855
10-19	755	2,165	265	3,185
20-49	295	1,065	155	1,515
50-99	100	350	60	510
100-249	50	170	25	245
250+	10	110	25	145
Total	14,700	74,645	5,750	95,095

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7211 : Research and experimental development on biotechnology	7219: Other research and experimental development on natural sciences and engineering	7220 : Research and experimental development on social sciences and humanities	72: Total
0-4	500	2,620	365	3,485
5-9	80	305	50	435
10-19	40	245	25	310
20-49	10	170	25	205
50-99	10	75	10	95
100-249	5	70	5	80
250+	0	70	0	70
Total	645	3,555	480	4,680

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2015	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7311 : Advertising agencies	7312: Media representation	7320 : Market research and public opinion polling	73: Total
0-4	12,795	2,630	2,430	17,855
5-9	1,440	285	355	2,080
10-19	775	120	210	1,105
20-49	480	60	135	675
50-99	135	15	55	205
100-249	90	10	50	150
250+	55	10	40	105
Total	15,770	3,130	3,275	22,175

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2015	Table Population : UK Business Entities Unit : Business Entities, Count				
Emp	7410: Specialised design activities	7420: Photographic activities	7430: Translation and interpretation activities	7490: Other professional, scientific and technical activities n.e.c.	74: Total
0-4	19,060	7,320	1,265	40,330	67,975
5-9	1,480	445	60	3,315	5,300
10-19	635	130	30	975	1,770
20-49	215	65	15	360	655
50-99	35	15	5	85	140
100-249	15	5	0	25	45
250+	5	5	5	15	30
Total	21,445	7,985	1,380	45,105	75,915

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2015	Table Population : UK Business Entities Unit : Business Entities, Count
Emp	7500 : Veterinary activities
0-4	1,495
5-9	730
10-19	730
20-49	445
50-99	100
100-249	20
250+	10
Total	3,530

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2014	Table Population : UK Business Entities Unit : Business Entities, Count		
Turnover	6910 : Legal Activities	6920 : Accounting, bookkeeping and auditing activities; tax consultancy	69: Total
£0-49 (Thousands)	3,835	11,935	15,770
£50-99 (Thousands)	7,060	11,550	18,610
£100-249 (Thousands)	9,805	9,145	18,950
£250-499 (Thousands)	4,330	2,920	7,250
£500-999 (Thousands)	2,755	1,605	4,360
£1000-4999 (Thousands)	2,475	1,235	3,710
£5000+ (Thousands)	720	275	995
Total	30,980	38,665	69,645

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7010 :Activities of head office	7021 : Public relations and communications activities	7022: Business and other management consultancy activities	70: Total
£0-49 (Thousands)	1,025	720	27,330	29,075
£50-99 (Thousands)	95	1,195	41,035	42,325
£100-249 (Thousands)	535	955	54,620	56,110
£250-499 (Thousands)	270	340	7,940	8,550
£500-999 (Thousands)	190	240	4,150	4,580
£1000-4999 (Thousands)	150	210	3,515	3,875
£5000+ (Thousands)	60	80	890	1,030
Total	2,325	3,740	139,480	145,545

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7111 :Architectural activities	7112 : Engineering activities and related technical consultancy	7120: Technical testing and analysis	71: Total
£0-49 (Thousands)	3,945	10,255	725	14,925
£50-99 (Thousands)	4,105	26,520	2,045	32,670
£100-249 (Thousands)	3,345	21,275	1,220	25,840
£250-499 (Thousands)	1,055	3,765	345	5,165
£500-999 (Thousands)	680	2,420	260	3,360
£1000-4999 (Thousands)	560	2,495	270	3,325
£5000+ (Thousands)	140	835	90	1,065
Total	13,830	67,565	4,955	86,350

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7211 :Research and experimental development on biotechnology	7219 : Other research and experimental development on natural sciences and engineering	7220: Research and experimental development on social sciences and humanities	72: Total
£0-49 (Thousands)	165	770	95	1,030
£50-99 (Thousands)	155	860	135	1,150
£100-249 (Thousands)	140	665	95	900
£250-499 (Thousands)	50	265	45	360
£500-999 (Thousands)	30	190	35	255
£1000-4999 (Thousands)	25	295	40	360
£5000+ (Thousands)	15	210	10	235
Total	580	3,255	455	4,290

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Turnover	7311 :Advertising agencies	7312 : Media representation	7320: Market research and public opinion polling	73: Total
£0-49 (Thousands)	3,310	715	635	4,660
£50-99 (Thousands)	3,430	700	630	4,760
£100-249 (Thousands)	4,550	945	925	6,420
£250-499 (Thousands)	1,525	310	345	2,180
£500-999 (Thousands)	985	195	255	1,435
£1000-4999 (Thousands)	1,100	200	290	1,590
£5000+ (Thousands)	420	60	125	605
Total	15,320	3,125	3,205	21,650

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2014	Table Population : UK Business Entities Unit : Business Entities, Count				
Turnover	7410: Specialised design activities	7420: Photographic activities	7430: Translation and interpretation activities	7490: Other professional, scientific and technical activities n.e.c.	74: Total
£0-49 (Thousands)	5,025	3,120	590	5,960	14,695
£50-99 (Thousands)	7,460	2,505	290	13,875	24,130
£100-249 (Thousands)	4,845	1,675	170	10,895	17,585
£250-499 (Thousands)	1,535	410	45	2,075	3,160
£500-999 (Thousands)	870	170	25	1,150	2,215
£1000-4999 (Thousands)	705	145	25	880	1,755
£5000+ (Thousands)	100	30	5	220	355
Total	20,540	8,055	1,150	35,055	64,800

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2014	Table Population : UK Business Entities Unit : Business Entities, Count
Turnover	75 : Veterinary activities
£0-49 (Thousands)	330
£50-99 (Thousands)	535
£100-249 (Thousands)	550
£250-499 (Thousands)	575
£500-999 (Thousands)	715
£1000-4999 (Thousands)	665
£5000+ (Thousands)	55
Total	3,425

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2014			
Table Population : UK Business Entities			
Unit : Business Entities, Count			
Emp	6910 : Legal activities	6920: Accounting; bookkeeping and auditing activities; tax consultancy	69: Total
0-4	22,875	30,755	53,630
5-9	3,400	4,560	7,960
10-19	2,310	2,090	4,400
20-49	1,475	870	2,345
50-99	515	215	730
100-249	260	100	360
250+	140	75	215
Total	30,975	38,665	69,640

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7010 : Activities of head office	7021: Public relations and communications activities	7022 : Business and other management consultancy activities	70: Total
0-4	1,105	3,050	130,420	134,575
5-9	560	340	5,265	6,165
10-19	345	200	2,360	2,905
20-49	185	100	965	1,250
50-99	70	35	280	385
100-249	40	10	125	175
250+	20	5	65	90
Total	2,325	3,740	139,480	145,545

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7111 : Architectural activities	7112: Engineering activities and related technical consultancy	7120 : Technical testing and analysis	71: Total
0-4	11,320	59,980	4,045	75,345
5-9	1,370	3,845	400	5,615
10-19	705	2,120	255	3,080
20-49	285	1,030	145	1,460
50-99	95	320	60	475
100-249	45	165	30	240
250+	10	105	20	135
Total	13,830	67,565	4,955	86,350

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7211 : Research and experimental development on biotechnology	7219: Other research and experimental development on natural sciences and engineering	7220 : Research and experimental development on social sciences and humanities	72: Total
0-4	465	2,345	340	3,150
5-9	65	295	50	410
10-19	30	235	25	290
20-49	10	165	25	200
50-99	5	75	10	90
100-249	5	70	5	80
250+	0	70	0	70
Total	580	3,255	455	4,290

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2014	Table Population : UK Business Entities Unit : Business Entities, Count			
Emp	7311 : Advertising agencies	7312: Media representation	7320 : Market research and public opinion polling	73: Total
0-4	12,510	2,695	2,400	17,605
5-9	1,395	245	345	1,985
10-19	715	100	205	1,020
20-49	430	60	120	610
50-99	135	15	55	205
100-249	90	5	45	140
250+	45	5	45	95
Total	15,320	3,125	3,205	21,650

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2014	Table Population : UK Business Entities Unit : Business Entities, Count				
Emp	7410: Specialised design activities	7420: Photographic activities	7430: Translation and interpretation activities	7490: Other professional, scientific and technical activities n.e.c.	74: Total
0-4	18,385	7,395	1,040	31,600	58,420
5-9	1,365	445	60	2,165	4,035
10-19	545	130	25	855	1,555
20-49	200	60	15	320	595
50-99	35	20	5	75	135
100-249	10	0	5	30	45
250+	0	5	0	10	15
Total	20,540	8,055	1,150	35,055	64,800

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2014	Table Population : UK Business Entities Unit : Business Entities, Count
Emp	7500 : Veterinary activities
0-4	1,400
5-9	735
10-19	730
20-49	430
50-99	105
100-249	15
250+	10
Total	3,425

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Annex C: List of external consultation visits for professional services industry review

Date	Organisation visited	Purpose of visit
14 th April 2015	BoE, OBR,	Update on the progress on Industry Review for financial services, property development, water transport, post, professional services and social care. Gathering the usefulness of the short/long reports.
28 th April 2015	HMT	As above

Links to the Industry Review requests for consultation from users

Date	Publication/Output
2015	Roe, S & Stephens, M (2015) Improvements to the output approach to measure UK GDP, 2015 , Office for National Statistics
2016	Thomas, M (2016) GDP(O) Improvement Report 2016 , Office for National Statistics

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