

Assessment of compliance with the Code of Practice for Official Statistics

Services Producer Price Indices

(produced by the Office for National Statistics)

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About the UK Statistics Authority

The UK Statistics Authority is an independent body operating at arm's length from government as a non-ministerial department, directly accountable to Parliament. It was established on 1 April 2008 by the *Statistics and Registration Service Act 2007*.

The Authority's overall objective is to promote and safeguard the production and publication of official statistics that serve the public good. It is also required to promote and safeguard the quality and comprehensiveness of official statistics, and good practice in relation to official statistics.

The Authority has two main functions:

1. oversight of the Office for National Statistics (ONS) – the executive office of the Authority;
2. independent scrutiny (monitoring and assessment) of all official statistics produced in the UK.

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ASSESSMENT AND DESIGNATION

The *Statistics and Registration Service Act 2007* gives the UK Statistics Authority a statutory power to assess sets of statistics against the *Code of Practice for Official Statistics*. Assessment will determine whether it is appropriate for the statistics to be designated as National Statistics.

Designation as National Statistics means that the statistics comply with the *Code of Practice*. The *Code* is wide-ranging. Designation can be interpreted to mean that the statistics: meet identified user needs; are produced, managed and disseminated to high standards; and are explained well.

Designation as National Statistics should not be interpreted to mean that the statistics are always correct. For example, whilst the *Code* requires statistics to be produced to a level of accuracy that meets users' needs, it also recognises that errors can occur – in which case it requires them to be corrected and publicised.

Assessment reports will not normally comment further on a set of statistics, for example on their validity as social or economic measures. However, reports may point to such questions if the Authority believes that further research would be desirable.

Assessment reports typically provide an overview of any noteworthy features of the methods used to produce the statistics, and will highlight substantial concerns about quality. Assessment reports also describe aspects of the ways in which the producer addresses the 'sound methods and assured quality' principle of the *Code*, but do not themselves constitute a review of the methods used to produce the statistics. However the *Code* requires producers to "seek to achieve continuous improvement in statistical processes by, for example, undertaking regular reviews".

The Authority may grant designation on condition that the producer body takes steps, within a stated timeframe, to fully meet the *Code's* requirements. This is to avoid public confusion and does not reduce the obligation to comply with the *Code*.

The Authority grants designation on the basis of three main sources of information:

- i. factual evidence and assurances by senior statisticians in the producer body;
- ii. the views of users who we contact, or who contact us, and;
- iii. our own review activity.

Should further information come to light subsequently which changes the Authority's analysis, it may withdraw the Assessment report and revise it as necessary.

It is a statutory requirement on the producer body to ensure that it continues to produce the set of statistics designated as National Statistics in compliance with the *Code of Practice*.

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Foreword

The Services Producer Price Indices (SPPIs) are key economic indicators produced by ONS which aim to measure price changes in the service sector of the UK economy. ONS uses them as deflators in the production of the National Accounts, and they are widely used by government and beyond in a range of contexts from measuring price inflation within the services sector to use in contracts between businesses.

The UK has seen a progressive shift in balance from the production industries to the services sector, such that services now represent more than three-quarters of the UK's gross domestic product. However, this shift has not been reflected in the relative resources that ONS expends on producing price indicators: the current cost to ONS of collection, production and analysis of SPPIs in 2013/14 was £345,000; the cost of producing the Producer Price Indices, which cover the production sector, was £520,000.

This Assessment report captures the essence of a small team struggling with reduced (and relatively disproportionate) resources to produce a set of very important statistics. The team does a lot of things, including engaging with users, quite well. However, despite a recent increase in resources given to both production and development, previous development work has been ad hoc and has not developed the statistics to properly reflect both users' needs and the changing nature of the UK economy. As a result, the statistics have evolved only slowly.

This raises important questions about ONS's approach. In particular, I am concerned that the failure to divert resources from measuring production to measuring services, and the failure to reflect the increasingly important part services statistics should play in measuring the economy, could reflect a lack of senior strategic oversight for these statistics. I look forward to discussing these overarching findings with John Pullinger, the new National Statistician.

Ed Humpherson

Director General for Regulation, UK Statistics Authority

1 Summary of findings

1.1 Introduction

1.1.1 This is one of a series of reports¹ prepared under the provisions of the *Statistics and Registration Service Act 2007*². The Act gives the UK Statistics Authority power to re-assess whether the *Code of Practice for Official Statistics*³ continues to be complied with in relation to official statistics already designated as National Statistics. The report covers the set of statistics reported in *Services Producer Price Indices*⁴, produced by the Office for National Statistics (ONS).

1.1.2 The previous assessment of these sets of statistics was reported in Assessment report 25⁵. The statistics are being re-assessed because of the addition of new industries to the aggregate index and the amount of time that has passed since the last assessment.

1.1.3 This report was prepared by the Authority's Assessment team, and approved by the Regulation Committee on behalf of the Board of the UK Statistics Authority, based on the advice of the Director General for Regulation.

1.2 Decision concerning designation as National Statistics

1.2.1 The UK Statistics Authority judges that the statistics covered by this report are readily accessible, produced according to sound methods and managed impartially and objectively in the public interest, subject to any points for action in this report. The UK Statistics Authority confirms that the statistics published in *Services Producer Price Indices* are designated as National Statistics, subject to ONS implementing the Requirements listed in section 1.5 and reporting them to the Authority by January 2015.

1.2.2 ONS has informed the Assessment team that it has started to implement the Requirements listed in section 1.5. The UK Statistics Authority welcomes this.

1.3 Summary of key aspects of the statistics

1.3.1 ONS meets Eurostat data requirements for the *Council Regulation (EC) No 1165/98*⁶ (*Short-term statistics Regulation*) and has a good working relationship with, and understanding of, the needs of its known users of the Services Producer Price Indices (SPPIs) in the UK. However, ONS has demonstrated a limited commitment to developing an understanding of the use made of the statistics by a wider user base, such as those within specific businesses and organisations outside central government. Continuing to develop links with a wider user base will allow ONS to better understand user need and to continue

¹ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/index.html>

² http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf

³ <http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html>

⁴ <http://www.ons.gov.uk/ons/rel/ppi2/services-producer-price-indices/quarter-2-2014/index.html>

⁵ <http://www.statisticsauthority.gov.uk/assessment/assessment/assessment-reports/assessment-report-25---assessment-of-services-producer-price-indices.pdf>

⁶ http://epp.eurostat.ec.europa.eu/portal/page/portal/short_term_business_statistics/legislation

to improve the industry indices to maximise the public value arising from the investment in these statistics⁷.

- 1.3.2 ONS has been involved in contributing to the methods for developing price indices for services that are outlined in the manual published by OECD⁸. The *National Statistics Quality Review (NSQR): National Accounts and Balance of Payments*⁹ notes that “The UK has now established itself as a leader in the EU with respect to the measurement of activity in this [service] sector of the economy”. Since the introduction of SPPIs, ONS has systematically developed new indices, and steadily widened the coverage of them. During this re-assessment, ONS has demonstrated a commitment to undertake a number of improvements to reduce the statistical error associated with SPPIs, such as sample rotation. Users are not always aware of these improvements and other planned changes to SPPIs, even though ONS has published relevant information about them on its website.
- 1.3.3 The development of new individual services producer price indices was partly influenced by Eurostat’s *Short-term statistics Regulation* which places an obligation on EU Member States to develop price indices for specified industries by particular dates. In 2008, ONS estimated that, by fulfilling its plans to develop new indices at that time, the SPPIs would cover about 60% of the service sector. *SPPI* published in April 2010¹⁰ estimated that the index covered 52% of the service sector. *SPPI* published in May 2014 notes that ‘the SPPIs presented in this statistical bulletin represent 55-60% of the total service sector at industry level’. However, the Authority is concerned that the current coverage of the SPPI does not include enough industries or service products to fully represent the activities of the expanding UK service sector and ONS has not published its plans for the continuing development of SPPIs.
- 1.3.4 Currently, the production of SPPIs is less well developed than the production of Producer Price Indices (PPI) and, of the 43 separate SPPIs, ONS uses 29 of these in its production of estimates of real terms Gross Domestic Product (GDP). It is possible that resource constraints have precluded faster development of the indices or more widespread adoption of SPPIs within the production of National Accounts. There is still a large gap between the size of the service sector as a proportion of total GDP and the proportion of resources allocated to measuring service sector prices by ONS (see Chart 1 overleaf).

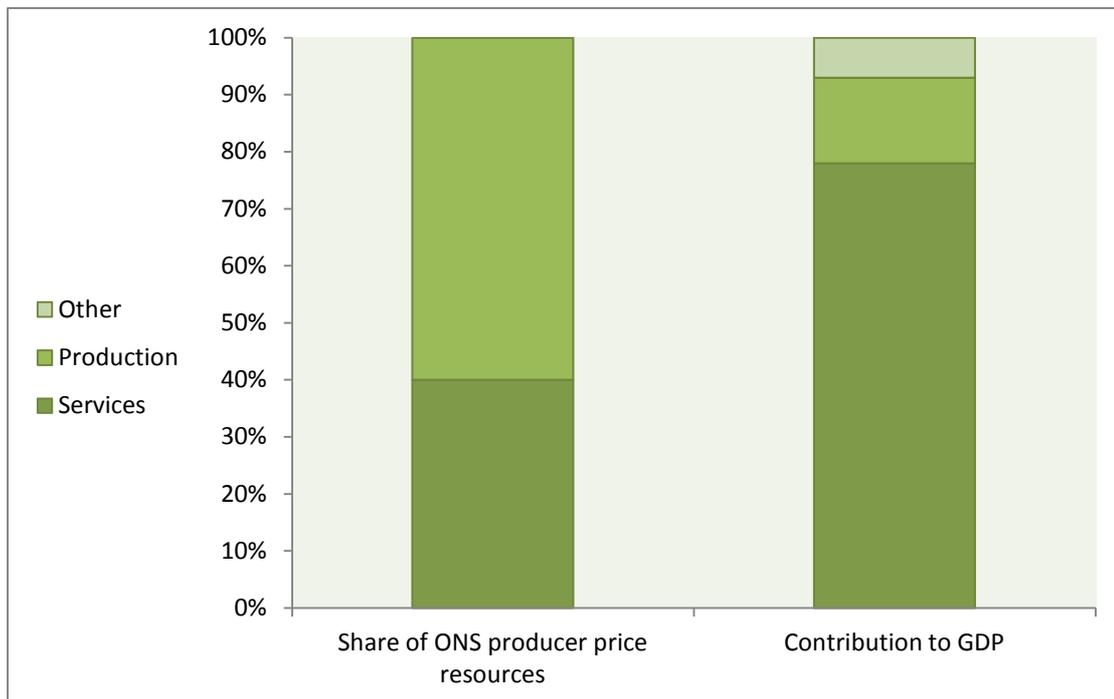
⁷ See also Statement by Head of Assessment in <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/assessment-report-278---statistics-on-gdp--iop-and-ios.pdf>

⁸ <http://www.oecd.org/std/prices-ppp/36274111.pdf>

⁹ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality-reviews/list-of-current-national-statistics-quality-reviews/nsqr-series--2--report-no--2--review-of-national-accounts-and-balance-of-payments.pdf>

¹⁰ <http://www.ons.gov.uk/ons/rel/elmr/economic-and-labour-market-review/no--4--april-2010/services-producer-price-indices--experimental----fourth-quarter-2009.pdf>

Chart 1: Comparison of ONS’s resources allocated and relative contribution to GDP between production and services



Source: ONS

1.4 Detailed recommendations

1.4.1 The Assessment team identified some areas where it felt that ONS should improve the production and presentation of *Services Producer Price Indices*. Those which are essential for ONS to address in order to strengthen its compliance with the *Code* and to enable designation as National Statistics are listed – as Requirements – in section 1.5, alongside a short summary of the key findings that led to each Requirement being made. Other suggestions for improvement, which the Assessment team considers would improve the statistics and the service provided to users but which are not formally required for their designation as National Statistics, are listed – as Suggestions – in section 1.6.

1.5 Requirements for designation as National Statistics

1.5.1 This section includes those improvements that ONS is required to make in respect of its *Services Producer Price Indices* in order to fully comply with the *Code of Practice for Official Statistics*, and to enable designation as National Statistics.

Finding	Requirement
ONS does not have an understanding of	1 a) Publish a plan for engaging and sharing information with a wider group of users with a

the wider user base for SPPIs. ONS should:		view to improving public value from SPPIs b) publish information about their use and experience of using SPPIs. As part of meeting this Requirement, ONS should refer to the Authority's Monitoring Brief <i>The Use Made of Official Statistics</i> ¹¹ (para 3.2).
ONS does not make clear which industry classes are currently excluded from SPPIs, nor when they might be included. ONS should:	2	a) Publish an analysis of which industry classes are included and which excluded from SPPIs b) publish their detailed plans for widening (adding more industry classes) and deepening (adding more products) to the coverage of SPPIs (para 3.8).
ONS does not clearly explain the assumptions applied to estimate prices in Northern Ireland as part of the compilation of UK SPPIs. ONS should:	3	Explain the assumptions that it makes regarding businesses in Northern Ireland when compiling SPPIs (para 3.9).
The <i>SPPI Quality and Methods Information</i> does not reflect possible bias or error caused by sample design, nor are future development plans published. ONS should:	4	a) Publish its development plans for quantifying the uncertainty of SPPIs b) update the <i>SPPI Quality and Methodology Information</i> to discuss the possible bias or error caused by sample design c) publish details about the forthcoming improvements to the sample design d) investigate and publish the relative costs and benefits of producing more timely and monthly SPPIs e) investigate and publish the relative costs and benefits of producing SPPIs at lower geographic levels (para 3.14).
ONS appears to allocate insufficient resource to the continuing improvement and production of SPPIs. ONS should:	5	Review the resources allocated to these statistics and publish information about the impact of resource constraints on the coverage and quality of SPPIs (para 3.20).
<i>SPPI</i> does not	6	Improve the commentary in <i>SPPI</i> to aid user

¹¹ <http://www.statisticsauthority.gov.uk/assessment/monitoring/monitoring-reviews/monitoring-brief-6-2010---the-use-made-of-official-statistics.pdf>

<p>include information to assist the user to review service sector price movements as part of the wider economy. ONS should:</p>		<p>interpretation of the statistics by:</p> <ul style="list-style-type: none"> a) Including information about the wider economic context for changes to SPPIs b) including other sources of service sector indices c) comparing SPPIs with other price indices. <p>As part of meeting this Requirement, ONS should consider the points detailed in annex 1 and annex 2 (para 3.21).</p>
<p>ONS's published Statement of Administrative Sources is not complete. ONS does not describe any implications for the accuracy and quality of the administrative data used to compile SPPIs when examining data quality, nor explain whether it applies any safeguards to minimise the risks posed by the quality of the administrative data supplied. ONS should:</p>	<p>7</p>	<ul style="list-style-type: none"> a) Ensure that all the administrative data sources used in the production of the SPPIs are listed in its SoAS b) determine the appropriate scale of assurance and documentation required for the administrative data used in <i>SPPI</i> based on pragmatic and proportionate judgement about the quality of the data and the public interest profile of the statistics c) communicate this requirement to the data suppliers d) publish an appropriate level of detail to inform users about the quality assurance and audit arrangements for the administrative data e) publish explanations about the likely degree of risk posed to the quality of the administrative data publish detailed descriptions of the operational context in which the administrative data are collected. <p>As part of meeting this requirement, ONS should take into consideration the Authority's Report <i>Quality Assurance and Audit Arrangements for Administrative Data</i> and the National Statistician's <i>Interim Guidance</i> (para 3.26).</p>

1.6 Suggestions for extracting maximum value from the statistics

1.6.1 This section includes some suggestions for improvement to ONS's statistics on SPPIs, in the interest of the public good. These are not formally required for designation, but the Assessment team considers that their implementation will improve public confidence in the production, management and dissemination of official statistics.

We suggest that ONS:

<p>1</p>	<p>Publish detailed plans for its Services Turnover Survey strategy for</p>
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	SPPIs (para 3.13).
2	Publish plans to reduce the burden on businesses submitting data for SPPIs (para 3.18).

2 Subject of the assessment

2.1 Introduction

2.1.1 *Services Producer Price Indices (SPPI)* is a quarterly report published by ONS, comprising a suite of individual price indices and an aggregate index, which provide estimates of average price changes for a range of services provided by businesses in the service sector in the UK. Each SPPI captures quarterly changes in the price charged for services provided by UK businesses to other UK businesses and the public sector. SPPIs are used as deflators in the estimates of real (constant price) GDP, the headline measure of change in the UK economy. The UK has seen a progressive change in the industrial composition of its economy since 1948, with increasing contribution from the service sector. By the first quarter of 2014, the service sector contributed 78% to the UK's GDP, whereas the production industry's contribution to GDP by the first quarter of 2014 was 15%, the construction industry contributed 6% and agriculture 1%¹².

2.2 Coverage of Services Producer Price Indices

2.2.1 Measuring the output of the service sector, to estimate the contribution of the service sector to GDP, is not straightforward. The diversity of activity within the sector is a challenge and individual prices cannot always be easily defined, and are not common from service to service, or even within a specific service. For example, the service sector includes services as diverse as those provided by estate agents, architects, and suppliers of telecommunications and computing services. Many services tend to be tailored to each client's needs, are unique, and change from quarter to quarter. Many businesses in the service sector have low set-up costs, so businesses are able to form and change rapidly, continually innovating and providing new products. This makes products and prices difficult to track and allocate to an industry category for pricing¹³. ONS has been involved in contributing to the methods for developing price indices for services that are outlined in the manual published by OECD¹⁴. The *National Statistics Quality Review (NSQR): National Accounts and Balance of Payments*¹⁵ notes that "The UK has now established itself as a leader in the EU with respect to the measurement of activity in this [service] sector of the economy".

2.2.2 The *UK Standard Industrial Classification of Economic Activities 2007 (SIC07)*¹⁶ provides a framework for classifying industrial activities into a common structure. SIC07 is a hierarchical classification system structured by sections, divisions, groups, classes and subclasses. SIC07 classifications were

¹² http://www.ons.gov.uk/ons/dcp171778_363449.pdf

¹³ Adapted from *Improvements to timely measures of service sector output*; Economic Trends 630, May 2006; ONS.

¹⁴ <http://www.oecd.org/std/prices-ppp/36274111.pdf>

¹⁵ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/quality-reviews/list-of-current-national-statistics-quality-reviews/nsqr-series--2--report-no--2--review-of-national-accounts-and-balance-of-payments.pdf>

¹⁶ <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html>

first used in the production of SPPIs in November 2010¹⁷. Service sector industries comprise businesses whose principal activity is to provide services. Currently, prices are collected from individual businesses by service product group from 43 industries of the service sector, but it is important to note that SPPIs do not include data on all possible industries that could be classified to the service sector (see Table 1 overleaf for the list of the industry classes included in SPPIs). *SPPi* published in April 2010¹⁸, estimated that the index covered 52% of the service sector. *SPPi* published in May 2014 notes that ‘the SPPIs presented in this statistical bulletin represent 55-60% of the total service sector at industry level’.

- 2.2.3 In 1990, ONS first began to develop SPPIs (known as the *Corporate Services Price Index (CSPI)* until November 2006), as an adjunct to the Producer Prices Index (PPI), in order to develop a more robust way to measure inflation for the service sector of the economy. A review of service sector statistics¹⁹ was undertaken in 1995 by a government task force (known as the President’s Task Force) at the request of the then President of the Board of Trade, Michael (now Lord) Heseltine. The review noted that ‘more and better quality service price indices to deflate service sector output’ are needed. The development of new individual SPPIs was partly influenced by Eurostat’s *Short-term statistics Regulation*, which places an obligation on EU Member States to develop price indices for specified industries. Between 2002 and 2005, ONS obtained European Commission grants to assist the development of the CSPIs to meet EU requirements for data. ONS developed CSPIs to expand the coverage and by 2004, the indices covered 32 industry classes with 14 more under development²⁰.
- 2.2.4 In response to user needs and the growing importance of the service sector to the UK economy, ONS has continued to increase the industrial coverage of the SPPI. *Developments in Services Producer Price Indices*²¹ includes a detailed workplan on page 9 for incorporating ten more industries. Phase one of this project, which commenced in April 2009, covered the development of: cargo handling; legal services; accountancy services; architectural services; engineering and air freight transport. Phase two indicated that ONS would develop indices for: business and management consultancy; storage and warehousing; data processing; computer services and advertising creation. In *SPPi* published in February 2014, following a period of consultation, development and assurance, ONS included previously experimental²² industry

¹⁷ <http://www.ons.gov.uk/ons/rel/elmr/economic-and-labour-market-review/no--12--december-2010/producer-prices-and-services-producer-prices--implementation-of-sic-2007.pdf>

¹⁸ <http://www.ons.gov.uk/ons/rel/elmr/economic-and-labour-market-review/no--4--april-2010/services-producer-price-indices--experimental----fourth-quarter-2009.pdf>

¹⁹ <http://www4.statcan.ca/english/voorborg/Documents/1996%20newport/papers/008019.PDF>

²⁰ <http://www.ons.gov.uk/ons/rel/elmr/economic-trends--discontinued-/no--605--april-2004/developments-to-the-cspi.pdf>

²¹ <http://www.ons.gov.uk/ons/rel/ppi2/services-producer-price-index---experimental/developments-in-services-producer-price-indices/services-producer-price-index---experimental---developments-in-services-producer-price-indices---2010.pdf>

²² <http://www.statisticsauthority.gov.uk/news/assessment-and-designation-of-experimental-statistics.html>

indices in the aggregate SPPI²³. This evolution of SPPIs means that some individual industries have only a relatively short time series available.

Table 1: SIC07 industry classes included in the SPPI and date of inclusion in the aggregate index

Section	Division	SIC07 class	SPPI index name	Year of entry into aggregate SPPI
E	37	37.00	Sewerage services	1995
E	38	38.11	Waste disposal	1995
E	38	38.32	Sorted materials recovery services	2010
G	45	45.20	Maintenance and repair of motor vehicles	1995
H	49	49.11	Business rail fares	2004
H	49	49.21	Rail freight	2004
H	49	49.39	Bus and coach hire	1995
H	49	49.41	Freight transport by road	1995
H	50	50.11	Commercial vehicle ferries	1995
H	50	50.20	Sea and coastal water freight	1995
H	51	51.11	Business airfares	2000
H	52	52.10	Storage and warehousing	2014
H	52	52.24	Cargo handling	2014
H	52	52.29	Freight forwarding	1995
H	53	53.10	National post parcels	2000
H	53	53.20	Courier services	1995
I	55	55.10	Hotels	2004
I	56	56.20	Canteens and catering	2004
J	58	58.10	Publishing services	2010
J	59	59.20	Sound recording and music publishing	2010
J	61	61.10	Business	1995

²³ <http://www.ons.gov.uk/ons/rel/ppi2/services-producer-price-indices/the-development-of-price-indices-for-professional-business-services--cargo-handling-and-storage-and-warehousing--quarter-3-2013/experimental-sppis-q3-2013-article.html>

			telecommunications	
J	62	62.00	Computer services	2005
K	64	64.19	Financial intermediation (banks)	Not included in aggregate index
L	68	68.20	Property rentals	1995
L	68	68.30	Real estate agencies	2004
M	69	69.10	Legal services	2014
M	69	69.20	Accountancy	2014
M	70	70.22	Business and management services	2014
M	71	71.11	Architecture services	2014
M	71	71.12	Engineering services	2014
M	71	71.20	Technical testing	2004
M	73	73.12	Advertising creation and placement	2005
M	73	73.20	Market research	2004
M	74	74.20	Commercial film processing	1995
M	74	74.30	Translating and interpretation services	1995
N	77	77.32	Construction plant hire	1995
N	78	78.00	Employment agencies	1995
N	80	80.11	Security services	1995
N	81	91.22	Industrial cleaning	1995
N	82	82.10	Secretarial services	2005
N	82	82.92	Contract packaging	2004
P	85	85.59	Adult education	1995
S	96	96.01	Commercial washing and dry cleaning	1995

Source: ONS *SPPI Summary of Index Composition*

2.3 Sources and methods

2.3.1 ONS produces the SPPIs based on price data collected from businesses through a statutory²⁴ quarterly survey. Businesses are selected for the SPPI survey using the Inter-departmental Business Register (IDBR)²⁵. The IDBR is a

²⁴ <http://www.legislation.gov.uk/ukpga/Geo6/10-11/39>

²⁵ <http://www.ons.gov.uk/ons/about-ons/products-and-services/idbr/index.html>

UK-wide business survey sampling frame that captures all UK businesses registered for Value Added Tax (VAT) or Pay as You Earn (PAYE). During the SPPI survey, price data are collected from selected businesses by a paper questionnaire or by telephone data entry (TDE). In 2014, the SPPI survey size was approximately 5,200 price quotes collected from just over 2,150 respondents, per quarter. ONS informed us that, in 2012, the typical initial response rate was approximately 82% 8 weeks after the quarter to which the statistics relate, rising to 95% the following quarter.

- 2.3.2 In addition to the quarterly survey used to compile SPPIs, ONS also uses prices from the Retail Prices Index and administrative price data from external sources, such as the Office of Water Services, the Office of Rail Regulation, Parcellforce Worldwide, the Office of Communications, The Bank of England and Investment Property Databank Limited.
- 2.3.3 Raw price data are converted into average prices for 43 industry classes from the UK service sector. Movements in prices are weighted to reflect the relative importance of industries within the service sector. Weighting is carried out using the Services Turnover Survey²⁶ (STS) and this is performed every 5 years. ONS carried out the latest STS in 2010 and the re-weighted SPPI was published in February 2014²⁷. Industry price movements are combined to produce the aggregate SPPI, published quarterly on both a Net Sector Output (NSO) and Gross Sector Output (GSO) basis. The NSO series measures transactions between business services and other sectors, excluding business services. The GSO series reflects the Service Sector inflation experienced by UK businesses.

2.4 Users and uses of Services Producer Price Indices

- 2.4.1 ONS uses SPPIs in the compilation of the National Accounts, using the indices to deflate a selection of services provided to other businesses and government in the monthly Index of Services. In 2005, 21 classes of service sector industry published covered by *CSPi* were used to deflate the Index of Services and Gross Domestic Product (GDP)²⁸, rising to 22 in 2006²⁹. The purpose of a deflator is to adjust nominal (current price) data into real (constant price) data. For the purposes of deflation, the pure price change (price inflation) is needed, so the SPPI sampling and calculations are designed to capture price inflation by using price data that track the price of the same service over time. This is used to help calculate the preliminary estimate of the output measure of quarterly GDP.
- 2.4.2 The main government users of the data include HM Treasury and the Bank of England, which use the information in their assessments of the economy, to monitor inflation and to carry out research. The Ministry of Defence uses SPPIs

²⁶ <http://www.ons.gov.uk/ons/about-ons/get-involved/taking-part-in-a-survey/information-for-businesses/a-to-z-of-business-surveys/services-turnover-survey/index.html>

²⁷ <http://www.ons.gov.uk/ons/rel/ppi2/producer-price-index/ppi-rebasing-2010---100/rebasing-the-producer-price-index-and-services-producer-price-index-onto-2010---100.html>

²⁸ <http://www.ons.gov.uk/ons/rel/elmr/economic-trends--discontinued-/no--620--july-2005/experimental-monthly-index-of-services---development-programme-update.pdf>

²⁹ <http://www.ons.gov.uk/ons/rel/elmr/economic-trends--discontinued-/no--630--may-2006/improvements-to-timely-measures-of-service-sector-output.pdf>

in contract escalation and the Department for Business, Innovation and Skills uses SPPIs as deflators in order to measure short and long-term growth in service industries. HM Revenue and Customs uses the statistics in its forecast of Air Passenger Duty revenues.

- 2.4.3 Internationally, Eurostat requires the provision of quarterly SPPI statistics under its *Short-term statistics Regulation* to develop and monitor policies relating to business competition, enterprise and economics. The statistics also provide a useful information tool for businesses in calculating price variations in commercial contracts and monitoring price changes in their industry.

2.5 Costs

- 2.5.1 ONS undertook a routine quality review of SPPIs in 2012 and published the *Triennial Review*³⁰, which noted that the estimated cost to ONS of regular production³¹ of SPPIs amounted to £211,000 in 2011/12. ONS has estimated that the cost of collection, production and analysis of SPPIs in 2013/14 was £345,000. ONS told the Assessment team that the budget increase could be mostly accounted for by an increase in the number of team members allocated to regular production in 2013/14 and the fact that some of the new SPPIs were still in development and were not considered in the costs for regular production in 2011/12.

2.6 Accessibility

- 2.6.1 ONS publishes *SPPI* in HTML and pdf formats, with supplementary data tables published in xls and csv formats. This equates to a level of three stars under the Five Star Scheme proposed in the *Open Data White Paper: Unleashing the Potential*³² and adopted as UK government policy in November 2012³³. Five stars represent the highest rating within the Scheme.

³⁰ <http://www.ons.gov.uk/ons/guide-method/method-quality/quality/triennial-reviews/triennial-review-of-the-service-producer-price-indies--sppi--2012.pdf>

³¹ Regular production costs exclude development costs

³² http://data.gov.uk/sites/default/files/Open_data_White_Paper.pdf

³³ <https://www.gov.uk/government/publications/open-standards-principles/open-standards-principles>

3 Assessment findings

Principle 1: Meeting user needs

The production, management and dissemination of official statistics should meet the requirements of informed decision-making by government, public services, business, researchers and the public.

Requirements from previous Assessment report 25 (December 2009):

- Requirement 1: Document the uses of SPPI data clearly on the website
- Requirement 2: Publish more regular information on the development of SPPIs

- 3.1 ONS meets Eurostat data requirements, providing quarterly SPPIs under the *Short-term statistics Regulation*, and has a good working relationship and understanding of the needs of known government users of SPPIs in the UK. However, ONS has done less to understand the use made of the statistics by a wider user base, such as the Confederation of British Business (CBI), the Institute of Directors (IOD), the Federation of Small Businesses (FSB), the British Chambers of Commerce (BCC), Economic Development Agency key sector staff specialising in business services, economic modellers and economists. ONS web metrics from July to September 2013 indicated that there were up to 800 views of the SPPI dataset page by individuals or organisations, so there appears to be a large group of potential SPPI data users with whom ONS is not engaging.
- 3.2 Responding to Requirement 1 in the previous Assessment report, ONS published a document in 2010, updated in 2014, titled *Users of Services Producer Price Index (SPPI) data*³⁴ which explained about Eurostat and known government uses for the statistics. The document includes a section on the strengths and limitations of the statistics in relation to their different uses, such as deflation for the National Accounts, contract escalation and monitoring inflation. However, it does not explore in detail the use made of the statistics, especially by users in the private sector, nor provide any information about users' experiences of accessing and using the SPPIs³⁵. To assist with the development of pricing business services, SPPI staff attend conferences, such as those organised by the International Voorburg Group on Service Statistics³⁶, but ONS does not provide links to the outcomes of these discussions and any subsequent developments in measuring business service prices. The previous assessment noted that only key users are approached by ONS for their views. Currently, the statistics team has widened engagement, by responding to queries from non-government users and emailing them to inform them that the latest *SPPI* is published. Continuing to develop links with a wider user base could help ONS to continue to improve the industry indices offered, to

³⁴ [http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/spqi/users-of-spqi-data.pdf](http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/sppi/users-of-spqi-data.pdf)

³⁵ See also Statement by Head of Assessment in

<http://www.statisticsauthority.gov.uk/assessment/assessment-reports/assessment-report-278---statistics-on-gdp--iop-and-ios.pdf>

³⁶ <http://www.voorburggroup.org/>

investigate the coherence of SPPIs with other statistics about the UK service sector, and to keep users informed about developments in the production of SPPIs. As part of the designation as National Statistics, ONS should (a) publish a plan for engaging and sharing information with a wider group of users with a view to improving the public value from investment in SPPIs and (b) publish information about their use and experience of using SPPIs³⁷ (Requirement 1). As part of meeting this Requirement, ONS should refer to the Authority's Monitoring Brief *The Use Made of Official Statistics*³⁸.

- 3.3 In response to Requirement 2 of the previous Assessment report³⁹, ONS published a document titled *Developments in Services Producer Price Indices* in March 2010⁴⁰ and set up a dedicated web page about SPPI development. Before this, ONS published articles about SPPI in its journal *Economic and Labour Market Review (ELMR)*⁴¹. *ELMR* ceased to be published from May 2011 and ONS has updated its website, so the original web page about SPPI development is no longer available. However, the Assessment team did find the articles on ONS's website about regular rebasing, methodological changes and improvements made to SPPI coverage on the SPPI user guidance and methodology page⁴². The statistics team is aware of the limitations of ONS's website and *SPPI* provides links to the appropriate guidance.

³⁷ In relation to Principle 1, Practices 2 and 5 of the *Code of Practice*

³⁸ <http://www.statisticsauthority.gov.uk/assessment/monitoring/monitoring-reviews/monitoring-brief-6-2010---the-use-made-of-official-statistics.pdf>

³⁹ <http://www.statisticsauthority.gov.uk/assessment/assessment-reports/assessment-report-25---assessment-of-services-producer-price-indices.pdf>

⁴⁰ <http://www.ons.gov.uk/ons/rel/ppi2/services-producer-price-index---experimental/development-of-the-services-producer-price-indices--sppis-/services-producer-price-index--experimental-.pdf>

⁴¹ <http://www.ons.gov.uk/ons/rel/elmr/economic-and-labour-market-review/index.html>

⁴² <http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/sppi/index.html>

Principle 2: Impartiality and objectivity

Official statistics, and information about statistical processes, should be managed impartially and objectively.

- 3.4 ONS publishes *SPPI* quarterly; release dates are available on the Release Calendar⁴³ and its own website. ONS presents the statistics in an objective manner.
- 3.5 *SPPI* notes that 'The full effect of a price change occurring within a quarter will only be reflected in the index for the following quarter.' The report also includes a statement under the heading of *Accuracy* that states 'Indices for the most recent two quarters are regarded as provisional and can be changed as later data become available.' *SPPI* includes a link to ONS's corporate revisions policy and data tables are provided which outline the exact nature and extent of revisions made to the SPPIs at the aggregate, the section and the industry level.

⁴³ <https://www.gov.uk/government/statistics/announcements>

Principle 3: Integrity

At all stages in the production, management and dissemination of official statistics, the public interest should prevail over organisational, political or personal interests.

- 3.6 No incidents of political pressures, abuses of trust or complaints relating to professional integrity, quality or standards were reported to or identified by the Assessment team.
- 3.7 ONS has established procedures to ensure that staff do not make any comments or release statistics in advance of their official release date.

Principle 4: Sound methods and assured quality

Statistical methods should be consistent with scientific principles and internationally recognised best practices, and be fully documented. Quality should be monitored and assured taking account of internationally agreed practices.

Requirements from previous Assessment report 25 (December 2009):

- Requirement 3: Publish a detailed workplan for developing the remaining indices required under the EU STS Regulation and strengthen the dialogue with Eurostat on the progress being made
- Requirement 4: Change the title for the top-level SPPI figure to clarify the partial coverage of the service sector
- Requirement 5: Publish more specific quality information for each of the indices included in SPPIs, including how the data are collected and what the data cover

3.8 Responding to Requirement 4 in the previous Assessment report, ONS amended the description of the top-level SPPI figure on the front page of *SPPI* to mention the ‘aggregate of selected’ SPPIs. In response to Requirement 5 in the previous Assessment report, *Developments in Services Producer Price Indices* includes a table containing information about the price collection method used, the number of quotes received and the number of respondents that provide these quotes for each index. In early 2014, ONS updated this information and published a document titled *SPPI Summary of Index Composition*⁴⁴ which details, for each index:

- the SIC07 class
- the weight applied to each index
- the pricing method
- the price collection method
- the number of quotes
- the number of respondents
- the index methodology
- index coverage

SPPI published in May 2014 notes that ‘the SPPIs presented in this statistical bulletin represent 55-60% of the total service sector at industry level’. However, ONS has not detailed for users exactly which industry classes, from the population of industries that make up the total service sector, are not covered by *SPPI*. There is a risk that less expert users might inadvertently use an index that does not fully reflect their needs. The statistics team has not published any

⁴⁴ <http://www.ons.gov.uk/ons/guide-method/user-guidance/prices/sppi/sppi-summary-of-index-composition.doc>

detailed plans to continue to widen (add new industries to) and deepen (add new products to) the coverage of SPPI. As part of the designation as National Statistics, ONS should (a) publish a list of which industry classes are included and which are excluded from SPPIs and (b) publish detailed plans for widening (adding new industries) and deepening (adding new products) the coverage of SPPIs⁴⁵ (Requirement 2).

- 3.9 Businesses are selected for the SPPI survey from the IDBR. The IDBR is a UK-wide business survey sampling frame that captures all UK businesses registered for Value Added Tax (VAT) or Pay as You Earn (PAYE). However, ONS told the Assessment team that data for the SPPIs are not collected from businesses in Northern Ireland, only Great Britain. Furthermore, the Services Turnover Survey also excludes businesses in Northern Ireland. ONS told the Assessment team that it assumes that business services prices move in the same way in Northern Ireland as in the rest of the UK and is testing this assumption by conducting a telephone survey of service sector businesses in Northern Ireland. Neither *SPPI* nor *SPPI QMI* explain the assumptions that ONS makes in producing UK indices without data from Northern Ireland. As part of the designation as National Statistics, ONS should explain the assumptions that it makes regarding businesses in Northern Ireland when compiling SPPIs⁴⁶ (Requirement 3).
- 3.10 Historically, the SPPIs have been rebased every five years to update all base prices and index weights. Over time, the relative volumes and prices of services change and the weighting structure of the SPPI needs to be updated to reflect these changes. To do this, a source of turnover data is needed to calculate weights to apply to the individual SPPIs. Estimates of service-level turnover are collected as part of a dedicated Services Turnover Survey (STS), as well as whenever new indices are added to the SPPI. There has usually been a considerable time lag from the STS being initiated for rebasing purposes to the rebased aggregate index being published (see Table 2). The nature of the expanding UK service sector means that a price index rebased only every five years could be subject to unacceptable levels of substitution bias and reduction of accuracy in the estimates over time. The statistics team told us that it will review the feasibility of using linking methods to re-base SPPI.

Table 2: Year of publication of rebased aggregate index

Base year	Year of publication in the aggregate SPPI
2000	2004
2005	2008
2010	2014

Source: ONS

⁴⁵ In relation to Principle 4, Practice 2 of the *Code of Practice*

⁴⁶ In relation to Principle 4, Practice 1 of the *Code of Practice*

3.11 The sample of the STS⁴⁷ in 2010 included five additional industries that fell outside the scope of *SPPI*. These industries were:

- film, video and television
- radio and TV broadcasting
- operation of sports facilities
- research and development
- travel and tour agencies

This was done deliberately to represent those service industries where ONS wishes to begin collecting price data to expand the coverage of *SPPI*. The document titled *Impact of rebasing the Services Producer Price Index to 2010=100*⁴⁸, which was published in February 2014, noted that a new index structure was also introduced alongside the rebasing, to ensure that sales from industries for which SPPIs are not published are still represented in the weighting structure. ONS hopes that this improvement should enable the aggregate *SPPI* to be more reflective of the latest proportions of each industry within the service sector, according to sales turnover.

3.12 A fall in the number of respondents due to businesses leaving the survey could lead to *SPPI* being less representative of transactions in the service sector, introducing possible bias in the index. ONS plans to increase the frequency of the STS to every two or three years, to better reflect the start-ups and closures of different businesses in the fast moving service sector.

3.13 Once businesses are selected to return prices for *SPPI*, they remain in the sample indefinitely, since there is currently no mechanism to rotate them out of the sample. The statistics team told us that this leads to depletion of the sample and complaints from respondents about the length of time they have been returning prices. Consequently, in July 2014, ONS sent out questionnaires to 20,000 businesses for a new STS, asking respondents for price information from the 2013 financial year. ONS has indicated that this most recent STS will be used to develop the STS as an additional sample frame in the future, to allow rotation of the sample and reduce respondent burden. ONS has indicated that the introduction of rotational sampling into the statutory SPPI survey needs additional IT functionality, which it is in the process of costing. ONS has not, however, provided the Assessment team with a plan for the future of the STS, nor indicated whether running the STS every three years is financially sustainable. We suggest that ONS publish detailed plans for its Services Turnover Survey strategy for SPPIs⁴⁹.

3.14 *Users of Services Producer Price Index (SPPI) data* summarises the strengths and limitations of the statistics in relation to three specific uses:

- deflation in the National Accounts
- contract escalation

⁴⁷ <http://www.ons.gov.uk/ons/rel/ppi2/producer-price-index/ppi-rebasing-2010---100/pdf-rebasing-onto-2010---100.pdf>

⁴⁸ http://www.ons.gov.uk/ons/dcp171766_353897.pdf

⁴⁹ In relation to Principle 4, Practice 5 of the *Code of Practice*

- monitoring inflation

However, it does not explore in detail the use or potential use made of the statistics by the private sector. Also, there remain a number of SPPIs that could potentially be used for deflation purposes in the National Accounts and the strengths and limitations of individual SPPIs for specific uses are not explained in detail. *SPPI Quality and Methodology Information* was published in 2012 and, hence, does not reflect the plans for changing the sample methodology and the impact of this on bias and error, nor does the document reflect the current plans for improvements to *SPPI*. The statistics team told us that it is working on the calculation of confidence intervals for *SPPI* estimates which, when complete, it plans to publish. *SPPI* is published quarterly, eight weeks after the end of the reference period. In order to be used as a monthly deflator by *IoS*, quarterly *SPPI* data have to be forecast and converted to monthly data using complex mathematical techniques, so efforts to improve the timeliness of *SPPI* data publication would assist the production of *IoS*. Some *SPPI* users told the Assessment team that the publication of monthly, rather than quarterly, *SPPI* data would be more meaningful for them. A monthly data release would align *SPPI* with the frequency of the *PPI* reports, and would enhance the commentary and discussion in other monthly outputs, such as estimates of GDP, *PPI*, the *Consumer Price Index (CPI)* as well as informing wider public debate about the UK economy. Some users commented that they would prefer to utilise *SPPI* data at the level of the Devolved Administrations and the regions of England, rather than at the UK level. As part of the designation as National Statistics, ONS should: a) publish its development plans for quantifying the uncertainty of *SPPI*s; b) update the *SPPI Quality and Methodology Information* to discuss the possible bias or error caused by sample design; c) publish details about the forthcoming improvements to the sample design; d) investigate and publish the relative costs and benefits of producing more timely and monthly *SPPI*s and e) investigate and publish the relative costs and benefits of producing *SPPI*s at lower geographic levels⁵⁰ (Requirement 4).

⁵⁰ In relation to Principle 4, Practice 2 of the *Code of Practice*

Principle 5: Confidentiality

Private information about individual persons (including bodies corporate) compiled in the production of official statistics is confidential, and should be used for statistical purposes only.

- 3.15 ONS has assured us that it takes all necessary steps to protect the confidentiality of the data that it collects. These cover data from third parties, disclosure checks, aggregation of data before publication and limited access to servers.
- 3.16 The front page of the survey questionnaire clearly states the confidentiality arrangements for the data provided. Exchanges of data with third parties are covered by Data Access Agreements, which clearly outline the steps to be taken to protect the confidentiality of the data.

Principle 6: Proportionate burden

The cost burden on data suppliers should not be excessive and should be assessed relative to the benefits arising from the use of the statistics.

- 3.17 ONS produces the SPPIs based on price data collected from a fixed panel of businesses through a statutory quarterly survey, selected from the IDBR. During the survey, price data are collected by a paper questionnaire or by telephone data entry (TDE). In 2014, the survey size was approximately 5,200 price quotes collected from about 2,150 respondents; the typical initial response rate is approximately 82%.
- 3.18 The total cost to business to complete and submit data for the *SPPI* was estimated for the 2012 Triennial review as approximately £51,000 per year. Feedback from respondents as recorded in the 2012 Triennial review was mixed, with some finding the questionnaire complex to complete. *SPPI QMI* reported that the split between respondents who completed questionnaires and those who used ONS' TDE system is roughly equal. As noted in paragraph 3.13, ONS is working on IT improvements to introduce rotational sampling which will reduce the burden on respondents, once implemented. ONS is introducing a new programme of Electronic Data Collection⁵¹, which it expects will increase data collection using on-line surveys for both business and social surveys and the SPPIs are being considered in this programme. We suggest that ONS publish plans to reduce the burden on businesses submitting data for SPPIs⁵².

⁵¹ <http://www.ons.gov.uk/ons/media-centre/statements/government-major-projects-portfolio-data-for-ons--2014/office-for-national-statistics-data---xls-format.xls>

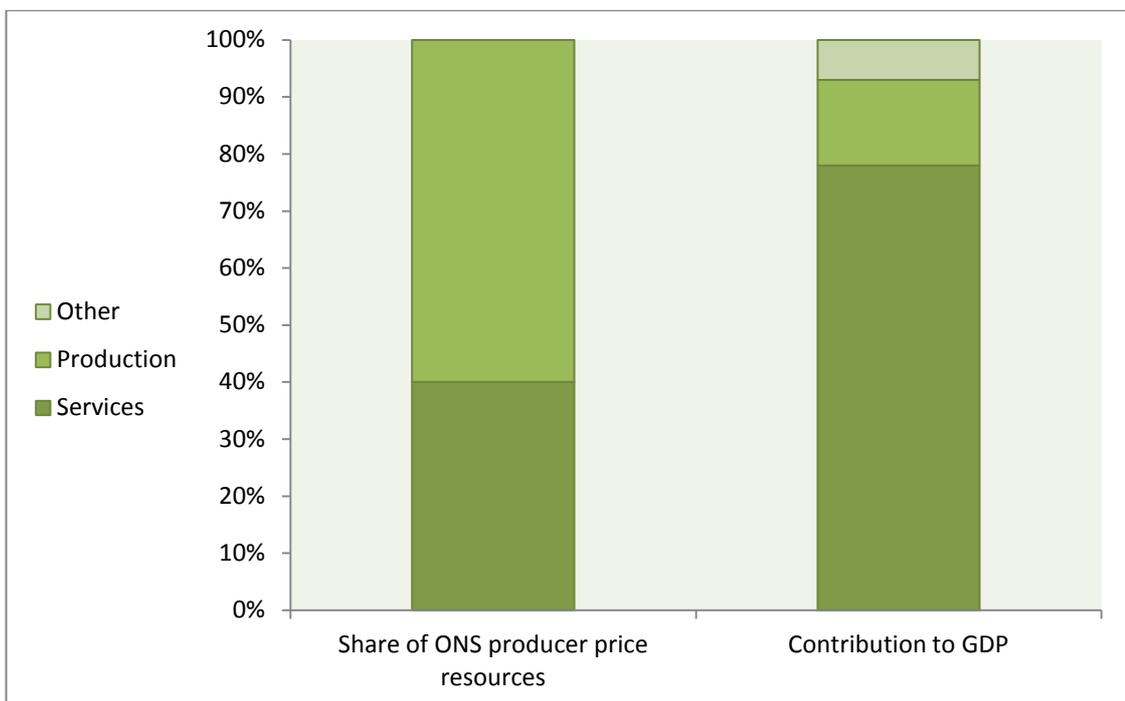
⁵² In relation to Principle 6, Practice 1 of the *Code of Practice*

Principle 7: Resources

The resources made available for statistical activities should be sufficient to meet the requirements of this Code and should be used efficiently and effectively.

3.19 The Allsopp Review⁵³, published in 2004, recommended that ONS address the imbalance between the measurement of services and manufacturing. Amongst other things, the report required that ONS extend available deflators for the measurement of service sector activity. Between 2002 and 2005, ONS received EU funding to extend the coverage of the SPPI; however, funding reductions following Sir Peter Gershon's Efficiency Review⁵⁴ of 2004/5 meant that planned IT improvements and staffing resources were scaled back. The current cost to ONS of collection, production and analysis of SPPIs in 2013/14 was £345,000. This contrasts with the resources allocated to cover comparable activities for the Producer Price Index (PPI) at £520,000 – there is still a gap between the size of the service sector as a proportion of total GDP and the proportion of resources allocated to measuring the service sector (as shown in Chart 1). The statistics team told the Assessment team that SPPI price collection is still subordinate to the price collection for *PPI*.

Chart 1: Comparison of ONS's resources allocated and relative contribution to GDP between production and services



Source: ONS

⁵³ <http://ons.ent.sirsidynix.net.uk/client/search/asset/1641>

⁵⁴ http://webarchive.nationalarchives.gov.uk/http://www.hm-treasury.gov.uk/media/C/A/efficiency_review120704.pdf

3.20 ONS published an article in November 2013 titled *The Challenges of Measuring the UK Service Sector*⁵⁵. This notes that ‘the challenges of 2013 remain much as they were in 2001. As available resources have shrunk in recent years, the investment in new SPPIs has also declined and it will be challenging to argue for significant new investment in a strategic expansion of SPPI given the challenging economic conditions.’ The Authority is concerned that the proportion of resources (IT and personnel) currently devoted to SPPI development and production is not commensurate with the size and importance of the service sector to the UK economy, which in turn presents the risk of SPPIs not fully meeting users’ needs. As part of the designation as National Statistics, ONS should review the resources allocated to these statistics and publish information about the impact of resource constraints on the coverage and quality of SPPIs⁵⁶ (Requirement 5).

⁵⁵ <http://www.ons.gov.uk/ons/guide-method/method-quality/specific/economy/output-approach-to-gdp/engagement/the-challenges-of-measuring-the-uk-service-sector.pdf>

⁵⁶ In relation to Principle 7, Practice 1 of the *Code of Practice*

Principle 8: Frankness and accessibility

Official statistics, accompanied by full and frank commentary, should be readily accessible to all users.

Requirements from previous Assessment report 25 (December 2009):

- Requirement 6: Make metadata more accessible on the SPPI product web pages

- 3.21 *SPPI* notes that ‘the SPPIs presented in this statistical bulletin represent 55 to 60% of the total service sector at industry level’, but (as mentioned in paragraph 3.9) it does not mention which industries are included and which excluded. Additionally, the statistical report does not add value by explaining the wider economic context for any changes to the service producer price indices. No comparisons are offered, nor any comment made, about the comparability or coherence with other UK price indicators. There might be useful intelligence to be gathered and commented upon from other sources of information about the prices charged by the service sector, such as the Confederation of British Industry’s (CBI) quarterly *Service Sector Trends*⁵⁷ or the UK Markit/Chartered Institute of Purchasing and Supply (CIPS) *Purchasing Manager’s Indices*⁵⁸. Up to and including *SPPI* data for the period Quarter 4 2013, ONS had compared the quarterly *SPPI* to movements in *PPI*, *CPI* or *Retail Price Index (RPI)* for services. This provided a helpful sense check to enable users to review service sector price movements as part of the wider economy. As part of the designation as National Statistics, ONS should improve the commentary in *SPPI* to aid user interpretation of the statistics by:
- a) including information about the wider economic context in relation to SPPIs;
 - b) including information from other sources in relation to what is already known about service sector prices; and
 - c) comparing SPPIs with other price indices, such as *PPI*⁵⁹ (Requirement 6). As part of meeting this Requirement, ONS should consider the points detailed in annex 1 and annex 2.
- 3.22 Responding to Requirement 6 in the previous Assessment report, ONS updated its SPPI web page to include only the most recent four periods of data, links to the SPPI user guidance and links to the SPPI development material. As has been noted in paragraph 3.3, however, much of this signposting to the relevant material has been lost with the new website. Prior to the change, ONS announced in *SPPI* that the index would be rebased, published an article alongside the rebased data to explain the impact, emailed users (including non-government users) a copy of the rebased bulletin with a note to draw their attention to the fact that the figures were rebased and included a paragraph in subsequent reports to explain that the figures had been recently rebased. For the introduction of the new industries to the aggregate SPPI, ONS announced

⁵⁷ <http://www.cbi.org.uk/business-issues/economic-intelligence/economic-intelligence-content/service-sector-trends/>

⁵⁸ <http://www.cips.org/en/CIPS-for-Business/Performance/pmi/>

⁵⁹ In relation to Principle 8, Practice 2 of the *Code of Practice*

the change in the statistical report and associated article containing the new industries and requested feedback from users on this proposal. ONS also held meetings with key users to announce and discuss this change and circulated an email to wider users to ask for their views on this. In spite of this activity, most of the non-government users who responded directly to the Authority during this assessment were not aware of the re-basing following the 2010 STS, nor the fact that new indices had been included in the Quarter 4 2013 data series, published in February 2014. Users also told us that it was not easy to get the information that they needed about any changes to the SPPI data in a timely manner and that they found it difficult to find information using ONS's website. As a result of assessment team feedback during this assessment, ONS has included a list of the new indices and has updated the links in *SPPI* for Quarter 2 2014 to ensure data users are able to access the latest metadata associated with SPPIs, including references to the STS 2010. The Authority recognises that ONS is continuing to improve the access to information on its website. As the *National Statistics Quality Review: National Accounts and Balance of Payments* notes "ONS is well aware that problems still exist with the website and efforts to improve it continue".

Protocol 1: User engagement

Effective user engagement is fundamental both to trust in statistics and securing maximum public value. This Protocol draws together the relevant practices set out elsewhere in the Code and expands on the requirements in relation to consultation.

3.23 The requirements for this Protocol are covered elsewhere in this report.

Protocol 2: Release practices

Statistical reports should be released into the public domain in an orderly manner that promotes public confidence and gives equal access to all, subject to relevant legislation.

3.24 Release practices for *SPPI* are in line with the *Code of Practice*. No pre-release access is currently granted. The Authority strongly endorses the decision not to grant pre-release access to these statistics, in line with its publicly stated policy⁶⁰. The Authority's view is that the existence of pre-release access can undermine public confidence both in the statistical evidence and in the policies to which official statistics relate.

⁶⁰ <http://www.statisticsauthority.gov.uk/reports---correspondence/correspondence/letter-from-sir-andrew-dilnot-to-bernard-jenkin-mp---10032014.pdf>

Protocol 3: The use of administrative sources for statistical purposes

Administrative sources should be fully exploited for statistical purposes, subject to adherence to appropriate safeguards.

- 3.25 In addition to the quarterly survey to collect SPPI price data, ONS also uses prices from the Retail Prices Index and administrative price data from external sources, such as the Office of Water Services, the Office of Rail Regulation, Parcelforce Worldwide, the Office of Communications, The Bank of England and Investment Property Databank Limited.
- 3.26 ONS has published a *Statement of Administrative Sources*⁶¹ (SoAS), but this does not list all the administrative sources used to compile SPPIs. Although the *QMI* includes a short section on quality assurance, which describes the checks that ONS applies to the data, ONS has not demonstrated publicly its own awareness of the risks that are posed by the data sources to the quality of SPPIs. ONS does not describe any implications for the accuracy and quality of the administrative data used to compile SPPIs when examining data quality, nor explain whether it applies any safeguards to minimise the risks posed by the quality of the administrative data supplied. As part of the designation as National Statistics, ONS should: a) ensure that all the administrative data sources used in the production of the SPPIs are listed in its SoAS; b) determine the appropriate scale of assurance and documentation required for the administrative data used in *SPPI* based on pragmatic and proportionate judgement about the quality of the data and the public interest profile of the statistics; c) communicate this requirement to the data suppliers; d) publish an appropriate level of detail to inform users about the quality assurance and audit arrangements for the administrative data; and e) publish explanations about the likely degree of risk posed to the quality of the administrative data, taking into consideration the Authority's Report *Quality Assurance and Audit Arrangements for Administrative Data*⁶² and the National Statistician's *Interim Guidance*^{63 64} (Requirement 7).

⁶¹ <http://www.ons.gov.uk/ons/guide-method/the-national-statistics-standard/code-of-practice/statement-of-administrative-sources/statistical-usage-of-administrative-or-management-sources/index.html>

⁶² <http://www.statisticsauthority.gov.uk/assessment/monitoring/administrative-data-and-official-statistics/quality-assurance-and-audit-arrangements-for-administrative-data---exposure-draft.pdf>

⁶³ <https://gss.civilservice.gov.uk/wp-content/uploads/2012/12/Interim-Admin-Data-guidance.pdf>

⁶⁴ In relation to Protocol 3, Practice 5(e) of the *Code of Practice*

Annex 1: Compliance with Standards for Statistical Reports

- A1.1 In November 2012, the UK Statistics Authority issued a statement on *Standards for Statistical Reports*⁶⁵. While this is not part of the *Code of Practice for Official Statistics*, the Authority regards it as advice that will promote both understanding and compliance with the *Code*. In relation to the statistical reports associated with *Services Producer Price Indices*, this annex comments on compliance with the statement on standards. The comments included in this annex are based on a review of *Services Producer Price Indices* for Quarter 2 2014⁶⁶.
- A1.2 In implementing any Requirements of this report (at paragraph 1.5) which relate to the content of statistical reports, we encourage the producer body to apply the standards as fully as possible.

Include an impartial narrative in plain English that draws out the main messages from the statistics

- A1.3 The main messages are at the start of the report and the commentary in *SPPI* for Quarter 2 2014 provides some explanations of which activities contributed to the largest changes in industry prices. However, *SPPI* does not contextualise the statistics against service producer price performance from other sources. The report included analysis over time, but no sub-UK breakdowns were provided. The statistical report does not take the opportunity to add value by explaining the wider economic context for any changes to the service producer price indices. No comparisons are offered, nor any comment made, about the comparability or coherence with other UK price indicators.

Include information about the context and likely uses of the statistics

- A1.4 The report includes a description of price indices and a section about the uses of the statistics, as well as links to a separate document about the users and uses of the *SPPI*. This document includes a section on the strengths and limitations of the statistics in relation to their different uses, such as deflation for the National Accounts, contract escalation and monitoring inflation. However, it does not explore in detail the use made of the statistics by those outside government, nor provide any information about users' experiences of accessing and using *SPPI*.

Include information about the strengths and limitations of the statistics in relation to their potential use

- A1.5 Little explanation is provided in *SPPI* about the degree of uncertainty in the statistics which may lead to a false assumption about their accuracy. *SPPI* mentions on page 1 that the aggregate *SPPI* provides limited coverage of the sector. ONS has not detailed for users exactly which industry classes, from the population of industries that make up the total service sector, are not covered by *SPPI*.

⁶⁵ <http://www.statisticsauthority.gov.uk/news/standards-for-statistical-reports.html>

⁶⁶ <http://www.ons.gov.uk/ons/rel/ppi2/services-producer-price-indices/quarter-2-2014/index.html>

Be professionally sound

- A1.6 *SPPI* includes a link to ONS's corporate revisions policy and data tables are provided which outline the exact nature and extent of revisions made to the SPPIs at the aggregate, the section and the industry level. The text mentions that the last two quarters are considered provisional and that they may be revised as further data are received. The charts and text make clear that new industry indices have been included and so that not all the industry-level SPPIs used to construct the aggregate SPPI are National Statistics. Charts, tables and maps conform to good practice standards and descriptive statements are consistent with the statistics.
- A1.7 The geographic coverage on *SPPI* is labelled as UK, but neither *SPPI* nor *SPPI QMI* explain the assumptions that ONS makes in producing UK indices without data from Northern Ireland.

Include, or link to, appropriate metadata

- A1.8 Information about how the methods and definitions used relate to EU or international concepts are detailed in the linked quality document and a link is provided to the relevant page on Eurostat's website to allow comparisons with other nations' SPPI statistics. Much of the signposting to historic quality documentation from *SPPI* has been lost with the new website. The majority of non-government users who responded directly to the Authority during this assessment were not aware of the re-basing following the 2010 STS, nor the fact that new indices had been included in the Quarter 4 2013 data series, published in February 2014. As a result of Assessment team feedback during this assessment, ONS has included a list of the new indices and has updated the links in *SPPI* for Quarter 2 2014 to ensure data users are able to access the latest metadata associated with SPPIs, including references to the STS 2010.
- A1.9 The report provides a link to the reference tables and datasets, which include all the SPPIs in xls and csv formats.

Annex 2: Summary of assessment process and users' views

- A2.1 This assessment was conducted from August 2013 to July 2014.
- A2.2 The Assessment team – Caroline Jones, Iain Russell and Sara James – agreed the scope of and timetable for this assessment with representatives of ONS in August 2013. The Written Evidence for Assessment was provided on 6 March 2014. The Assessment team subsequently met ONS during May to review compliance with the *Code of Practice*, taking account of the written evidence provided and other relevant sources of evidence.

Summary of users contacted, and issues raised

- A2.3 Part of the assessment process involves our consideration of the views of users. We approach some known and potential users of the set of statistics, and we invite comments via an open note on the Authority's website. This process is not a statistical survey, but it enables us to gain some insights about the extent to which the statistics meet users' needs and the extent to which users feel that the producers of those statistics engage with them. We are aware that responses from users may not be representative of wider views, and we take account of this in the way that we prepare Assessment reports.
- A2.4 During this assessment ONS undertook its own user survey with a small number of users from government and business, in late 2013. ONS shared the summary of these with the Assessment team. The government users reported to ONS that they were content for the experimental SPPIs to be included in the aggregate statistical report. The MoD uses the SPPI for contract escalation and, in ONS itself, the National Accounts team were also keen to see the experimental label removed so that they could start to develop the additional series as deflators. Non-government users make use of the statistics for monitoring price trends, benchmarking and forecasting.
- A2.5 In addition, the Assessment team approached key users who had previously provided feedback about price statistics to the Authority during this assessment. The Assessment team received 10 substantive responses from the user consultation. The respondents were grouped as follows:

Academic	3
Commercial sector	4
Media	1
International	2

- A2.6 Users responding to the Assessment team as part of this assessment reported that they use the statistics for forecasting, deflating contracts, academic modelling and research. They felt that the commentary provided was useful and that ONS staff were helpful when approached directly, but that the accessibility of the data they needed using the ONS website was very poor. Some users who responded directly to the Authority were not aware of the re-basing exercise nor the fact that new indices in the range of industries covered had been included in *SPPI Quarter 4 2013*. Future enhancements to the data

that users would like to see included a breakdown of figures by region, a monthly dataset released alongside CPI and PPI, and more industries covered.

Key documents/links provided

Written Evidence for Assessment document

