

# Summary Quality Report for the Quarterly Operating Profits Survey

## 1 Introduction

This report is part of a rolling programme of quality reports being introduced by the Office for National Statistics (ONS). The full programme of work being carried out on [Statistical Quality](#)<sup>1</sup> is available on the National Statistics website. Summary Quality Reports are overview notes which pull together key qualitative information on the various dimensions of quality as well as providing a summary of methods used to compile the output.

This report relates to estimates of Operating Profits collected by the Quarterly Operating Profits Survey (QOPS) and aims to provide users with information on usability and fitness for purpose of these estimates. The survey collects information on the Operating Profits of businesses for each calendar quarter.

Terminology, concepts and methods used in capital expenditure can be found in the UK [National Accounts: Concepts, Sources and Methods](#)<sup>2</sup>.

## 2 Summary of Quality

### 2.1 Relevance

*The degree to which the statistical product meets user needs for both coverage and content.*

Quarterly Operating Profits Survey	
What it measures	The QOPS measures: operating profit of businesses before exceptional items; depreciation; amortisation (the allocation of a lump sum amount to different time periods, particularly for loans and other forms of finance); impairment; losses and/or profits on disposals and exceptional items
Frequency	Quarterly
Sample size	Approximately 1,700 per quarter
Sample frame	Inter Departmental Business Register (IDBR)
Sample design	A stratified random sample at enterprise group is selected in first quarter of each year, stratified by 12 Standard Industrial Classification (SIC) 2003 groupings and 5 employment sizebands. Complete enumeration of the top band (5000+ employment). Businesses with 0-19 employment are not sampled – instead, weighting and estimation is applied to produce best estimates. This sample is converted to a reference list for the remaining quarters of the survey year
Weighting	Estimates are calculated using matched pairs except Sic 11.1, which is completely enumerated and Sic 11.2, which is weighted to the universe using employment as the auxiliary variable
Estimation	With the exception of SIC 11.1 & 11.2, estimates are calculated using matched pairs. For details see section 3.5
Imputation	There is no imputation in this survey
Outliers	In SIC 11.2, businesses that have a profit figure which is atypical or extreme may be classed as outliers and not used to calculate weighting. This is a manual process

The key users of the Operating Profits growth rates estimates are the Private Non-financial Corporation (PNFC) Branch of the National Accounts Group (NAG).

The results are used by both government and industry. PNFC Branch uses the data to calculate quarterly estimates of Gross Operating Profits, an important element of the income measure of Gross Domestic Product (GDP). Data collected by QOPS are used to calculate growth rates which are then applied to HM Revenue and Customs (HMRC) annual profits data to derive estimates of quarterly profits for PNFCs. Gross operating profits is the largest component of the income and capital account of the PNFCs' sector. HM Treasury uses the results for forecasting, analytical and briefing work on the economy wide output.

The survey covers PNFCs trading in Great Britain in the industrial, commercial and services sector. Agricultural businesses, public sector and charities are excluded from the survey, as data for these sectors are obtained from other sources. Questionnaires are sent to approximately 1,700 businesses at the Enterprise Group level each quarter. All businesses with over 5000 employment are permanently included, smaller businesses are randomly sampled. The survey does not select businesses with employment less than 20.

The survey is reviewed every three years and the results published in the Quarterly Operating Profits Triennial Review, as are all quarterly surveys in line with the government's guidelines for controlling statistical surveys. The review ensures there is minimum burden placed on respondents, whilst also ensuring that the data collected are necessary and could not be produced by an alternative method.

QOPS and the [UK National Accounts](#)<sup>3</sup> are compiled in accordance with the [European System of Accounts 1995 \(ESA 95\)](#)<sup>4</sup>, under EU law. ESA 95 is itself consistent with the standards set out in the [United Nations, System of National Accounts 1993 \(SNA 93\)](#)<sup>5</sup>.

## 2.2 Accuracy

*The closeness between an estimated result and the (unknown) true value.*

The survey sample is selected from the IDBR, a database of UK businesses that is maintained by ONS. The number of questionnaires returned must be 51 per cent at the provisional stage and 82 per cent at the revised stage. Respondents are sent reminder letters to encourage response, and are also contacted by telephone to achieve the response targets.

Estimates from this survey are subject to various sources of error. Total error consists of two elements, the sampling error and the non-sampling error.

### Sampling error

This occurs because estimates are based on a sample rather than a census. Sampling error is minimised for the QOPS survey by selecting the largest contributors within each sector (based on turnover). This is reviewed and refined periodically. From 2008, sampling error will be continually monitored with standard errors and coefficients of variation calculated for QOPS outputs.

### Non-sampling error

Non-sampling errors can occur due to non-response and errors of coverage, measurement, and processing. Response rates give an indication of the presence of non-response error on the estimates (eg bias).

Each quarter respondent data are checked against previous returns and discrepancies queried. Aggregate data are compared quarter-on-quarter and against the previous results.

### **2.3 Timeliness and Punctuality**

*Timeliness refers to the lapse of time between publication and the period to which the data refer. Punctuality refers to the time lag between the actual and planned dates of publication.*

The Operating Profits survey is quarterly and produces three outputs per quarter. Provisional results are available to National Accounts five to six weeks after the end of the calendar quarter; revised results eight to nine weeks, at which time the late estimates for the previous quarter are also delivered.

### **2.4 Accessibility and Clarity**

*Accessibility is the ease with which users are able to access the data, also reflecting the format(s) in which the data are available and the availability of supporting information. Clarity refers to the quality and sufficiency of the metadata, illustrations and accompanying advice.*

Access to data at the individual business level is restricted due to the possibility of disclosure. The confidentiality of the data is legally enforced by the Statistics of Trade Act 1947.

PNFC Branch within National Accounts receives a briefing for each output. Included in the briefing are response rates achieved along with spreadsheets showing data movements at industrial level and the reasons behind those data movements.

The Quarterly Operating Profits data forms part of information used for producing the [Profitability of UK Companies First Release](#)<sup>6</sup>. Gross operating profits for PNFCs are also published in the UK National Accounts.

### **2.5 Comparability**

*The degree to which data can be compared over time and domain.*

Until the first quarter of 1991, HMRC (then Inland Revenue) undertook a voluntary survey of the profits of large business groups. In June 1991 the statutory quarterly survey of companies' profits was launched by ONS (then Central Statistics Office).

The sample has remained constant over time at approximately 1,700 businesses each quarter. As of Q2 2004 an additional questionnaire was introduced to collect operating profits for oil and gas extraction businesses (SIC11.1). These data were previously collected by a Department of Business, Enterprise and Regulatory Reform, BERR (previously DTI) survey. This survey ceased and ONS assumed responsibility for collecting the data.

The 2003 QOPS Mini Triennial Review recommended reviewing the questionnaire. As a result of the review of the questionnaire design, the questionnaire was amended, reducing the number of questions. Data are now requested for three questions, operating profit, depreciation and exceptional items and are available to National Accounts from Q2 2004 to present.

### **2.6 Coherence**

*The degree to which data that are derived from different sources or methods, but which refer to the same phenomenon, are similar.*

As mentioned previously the only other source of operating profits data were annual and collected by HMRC. However, since the HMRC survey ceased in 1991, the ONS is now the only source collecting this data - there is no alternative source of operating profits data available.

### 3 Summary of Methods Used to Compile the Output

#### 3.1 Data Collection

There are two questionnaires for this survey, the main QOPS and the Operating Profits from UK Continental Shelf Activities for businesses selected in SIC 11.1.

Questionnaire	Information requested
SIC11.1	<i>Profit before exceptional items and after depreciation from:</i> continuing operations acquisitions discontinued operations Exceptional items and Large Provisions Details of businesses acquired and disposed of
Other SICs	Operating profit before exceptional items Depreciation, amortisation, impairment, losses and/or profits on disposals Exceptional items

Both questionnaires ask for operating profit for a calendar quarter, however respondents can if necessary, provide data for a slightly different period if available, as the system automatically adjusts data reported outside a calendar quarter. Best estimates are acceptable.

#### 3.2 Sample and Design

The Operating Profits survey sample is approximately 1,700 businesses with the IDBR as the sampling frame. Respondents are top businesses of enterprise groups and individual businesses which have no parent or subsidiaries, with 20 or more employment. A stratified random sample is selected in first quarter of each year by SIC (in 13 industry groups) and 5 employment sizebands with full selection in the top band of 5000+ employment. The first quarter sample is transferred to a reference list for the three following quarters, minimising change through the four quarters.

The sampled size bands for all industries are:

- 20 – 49, 50 – 149, 150 – 999, 1000 – 4999 and 5000+

All businesses in the 5000+ employment size band are permanently included in the sample. Businesses with less than 20 employment are not sampled.

#### 3.3 Coverage

All sectors of the economy are covered with the exception of financial and public sectors, charities and agricultural businesses.

Growth rates are provided for the following industry groups:

SIC Group	Description
15-16	Manufacture of food products; beverages and tobacco
24	Manufacture of chemicals, chemical products and man-made fibres
30-33	Manufacture of electrical and optical equipment
17-23, 25-29, 34-37	Other manufacturing

50-52, 55	Wholesale and Retail Trades
60-64	Transport, Storage and Communication
70-74	Real Estate, Renting and Business Activities
80, 85	Education, Health and Social Work
90-93	Other Services
10, 12-14	Mining and Quarrying
11	Oil and Gas Extraction
40-41	Electricity and Gas Supply
45	Construction

For oil and gas extraction businesses SIC 11.1 and 11.2, National Accounts receive separate estimates in £ thousand.

### 3.4 Statutory Status

The statutory basis of the Operating Profits survey is the Statistics of Trade Act 1947.

### 3.5 Survey Procedures

Questionnaires are despatched two weeks before the end of the quarter, followed by two written reminders. Where possible, questionnaires are addressed to a named contact.

Returned questionnaires are scanned with Optical Character Recognition (OCR) used to create an image. Images are stored, thus reducing paper handling, retrieval and storage. Paper questionnaires are subsequently shredded and recycled.

Received data are put through a series of credibility checks. Businesses can be re-contacted if the data fails these checks.

For a business' data to be used within the survey results they must have provided data for the present and previous quarter as results are produced as 'Matched Pairs'.

There is no imputation or constructing of data within QOPS. SIC 11.1 is completely enumerated and SIC 11.2 is weighted to IDBR, using employment as the auxiliary variable.

Businesses that have a profit figure which is atypical or extreme may be removed if it is proven that the data are due to 'exceptional business'.

Growth rates data for operating profits is delivered to National Accounts, with supporting documentation containing 'Matched Pairs' data also supplied.

## 4 References

	<b>Title of Reference</b>	<b>Website Location</b>
1	Statistical Quality Programme	<a href="http://www.statistics.gov.uk/about/data/methodology/quality/default.asp">http://www.statistics.gov.uk/about/data/methodology/quality/default.asp</a>
2	UK National Accounts: Concepts, Sources and Methods	<a href="http://www.statistics.gov.uk/statbase/product.asp?vlnk=1144">http://www.statistics.gov.uk/statbase/product.asp?vlnk=1144</a>
3	Guide to the National Accounts	<a href="http://www.statistics.gov.uk/CCI/nugget.asp?ID=55">http://www.statistics.gov.uk/CCI/nugget.asp?ID=55</a>
4	European System of Accounts 1995	<a href="http://circa.europa.eu/irc/dsis/nfaccount/info/data/esa95/en/esa95en.htm">http://circa.europa.eu/irc/dsis/nfaccount/info/data/esa95/en/esa95en.htm</a>
5	UN System of National Accounts 1993 (SNA93)	<a href="http://unstats.un.org/unsd/sna1993/introduction.asp">http://unstats.un.org/unsd/sna1993/introduction.asp</a>
6	Profitability of UK Companies First Release	<a href="http://www.statistics.gov.uk/statbase/Product.asp?vlnk=794">http://www.statistics.gov.uk/statbase/Product.asp?vlnk=794</a>

**Date of Publication:** January 2009