

# Assessment of compliance with the Code of Practice for Official Statistics

## Statistics on Building Materials and Components

*(produced by the Department for Business, Innovation  
and Skills)*

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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 Statistics 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 of compliance with the Code of Practice for Official Statistics**

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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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# 1 Summary of findings

## 1.1 Introduction

- 1.1.1 This is one of a series of reports<sup>1</sup> prepared under the provisions of the *Statistics and Registration Service Act 2007*<sup>2</sup>. The Act requires all statistics currently designated as National Statistics to be assessed against the *Code of Practice for Official Statistics*<sup>3</sup>. The report covers the set of statistics reported in *Monthly Statistics of Building Materials and Components*<sup>4</sup>, produced by the Department for Business, Innovation and Skills (BIS).
- 1.1.2 Section 3 of this report adopts an ‘exception reporting’ approach; this abbreviated style of report reflects the Head of Assessment’s consideration of aspects of risk and materiality<sup>5</sup>. The Assessment team nonetheless assessed compliance with all parts of the *Code of Practice*.
- 1.1.3 This report was prepared by the Authority’s Assessment team, and approved by the Board of the Statistics Authority on the advice of the Head of Assessment.

## 1.2 Decision concerning designation as National Statistics

- 1.2.1 The 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 Statistics Authority confirms that the statistics published in *Building Materials and Components* can be designated as National Statistics.

## 1.3 Summary of strengths and weaknesses

- 1.3.1 BIS conducted a detailed user survey and review of its practice in relation to the *Code of Practice for Official Statistics*. It has initiated a project to implement the recommended improvements to methods and has improved the presentation of its statistics.
- 1.3.2 BIS has recently developed a commentary to accompany the release of the detailed data tables. The commentary describes the patterns for the main construction materials, using charts to illustrate comparisons over time and between regions. It has further developed the releases during the assessment to include information about the economic context of the statistics. It has also prepared a document detailing the quality and reliability of the statistics.

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

<sup>2</sup> [http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga\\_20070018\\_en.pdf](http://www.opsi.gov.uk/Acts/acts2007/pdf/ukpga_20070018_en.pdf)

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

<sup>4</sup> <http://stats.bis.gov.uk/construction/building/>

<sup>5</sup> <http://www.statisticsauthority.gov.uk/assessment/assessment/guidance-about-assessment/criteria-for-deciding-upon-the-format-of-an-assessment-report.pdf>

## 1.4 Detailed recommendations

- 1.4.1 The Assessment team identified areas where it felt that BIS could strengthen its compliance with the *Code*. BIS addressed these issues through the course of assessment in discussion with the Assessment team.

## 2 Subject of the assessment

- 2.1 BIS publishes *Monthly Statistics of Building Materials and Components (BMC)* covering statistics on selected building materials:
- monthly price indices of construction materials and statistics on bricks, cement and concrete blocks;
  - quarterly volume statistics on the production of sand and gravel, slate, concrete roofing tiles and ready-mixed concrete; and
  - annual and quarterly statistics on the value of overseas trade in selected construction materials and components in the UK.
- 2.2 The building material statistics are mainly used to monitor market information and assessing industry trends. Other uses include forecasting, policy development, academic research and contract pricing. The main users are supplier firms and trade associations, such as the Construction Products Association, as well as construction firms, consultancies and academics. Government uses include briefing ministers, answering parliamentary questions and monitoring trends in costs, production and trade in construction.
- 2.3 The series was first published in 1946 as part of the *Monthly Bulletin of Statistics* and has been published in the current format since 1987. BIS ceased hard-copy publication in December 2007 – since then the statistics have been available online. The coverage of cement and cementitious statistics changed from UK to GB in 2002 due to data confidentiality issues in Northern Ireland as the number of manufacturers reduced. The price indices series from October 2010 was affected by the change from SIC2003 to SIC2007<sup>6</sup>, which resulted in the discontinuation of some construction material price indices and their replacement with similar indices based on the new classification.
- 2.4 The producer price indices used for compiling the construction material indices are prepared monthly by ONS. Other price cost indices by construction sectors – new housing, other new work, repair and maintenance, and all work – are prepared by the Building Cost Information Service (BCIS). Data used to produce the price indices are collected mainly from surveys with systematic sampling, along with some from professional associations.
- 2.5 ONS also compiles the volume data (such as sales, production, stocks and delivery) for sand and gravel, slate, brick, and concrete and related products, on BIS's behalf. It collects the data through voluntary questionnaires sent to businesses on sample panels based on business directories. Data on cement and clinker are collected by the Mineral Products Association, the professional body for the cement production firms.
- 2.6 Import and export statistics on the value and quantity of overseas trade in construction materials and components are provided by HM Revenue and Customs (HMRC). The data are derived from administrative sources. Non-EU trade data are collected from customs declarations, while the EU data are

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<sup>6</sup> <http://www.ons.gov.uk/ons/guide-method/classifications/current-standard-classifications/standard-industrial-classification/index.html>

obtained via the Intrastat Survey<sup>7</sup> which collects data on the movement of goods between EU member states. These statistics are part of HMRC's *Overseas Trade in Goods Statistics*<sup>8</sup>.

- 2.7 BIS conducted a review of *BMC* which involved a user survey and its own assessment of its compliance with the *Code of Practice for Official Statistics*. It published the review in 2010 and identified some areas for improvement. As a result it commissioned ONS's Methodology Advisory Service (MAS) to further investigate and recommend improvements to the methods to enhance the quality of the *BMC* statistics. BIS obtained funding of almost £30,000 from the Quality Improvement Fund<sup>9</sup> to implement these improvements in a project which is due to be completed by March 2012.
- 2.8 As part of its review BIS conducted a respondent burden survey to determine the compliance costs. These were found to be £138,600 for the surveys used to produce *BMC*. The total cost to BIS for compiling *BMC* was around £104,000 for the 2010/11 financial year, comprising around:
- £89,000 – building materials inquiry;
  - £13,000 – materials/producer price indices; and
  - £2,000 – construction trade statistics.

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<sup>7</sup> <https://www.uktradeinfo.com/index.cfm?task=aboutIntrastat>

<sup>8</sup> <https://www.uktradeinfo.com/index.cfm?task=eearlypub> and <https://www.uktradeinfo.com/index.cfm?task=noneofullreport>

<sup>9</sup> The Quality Improvement Fund was set up by the UK Statistics Authority to support quality improvement in statistics across the Government Statistical Service.

### **3 Assessment findings**

- 3.1 The BIS user survey identified uses made of the building material statistics and the views of users regarding the quality of the statistics. BIS highlights the main uses within its review report. In response to advice from the Assessment team, BIS included a description of the use made of the statistics alongside *BMC*.
- 3.2 The BIS review of *BMC* highlighted areas for improvement, including various quality issues such as the coverage and accuracy of data inquiry panels. MAS also made recommendations for improving the methods, including the imputation for missing returns for sand and gravel, bricks and cement blocks. It reviewed the make-up of the sample panels and found that some were no longer representative of the industry. BIS has started work to address these issues. We suggest that BIS publish a report on the plans and progress of these developments and their implementation. The Assessment team regards the BIS review as an example of good practice.
- 3.3 BIS provides information about the data collection and statistical methods in its review of *BMC*, but provides little information about the quality and reliability of the statistics in the statistical release. BIS has prepared a document based on the information in its review, giving information about the quality and reliability of the building material statistics, including methods and details of the sample panels. It told us that it will extend this to include confidence intervals (to be provided by ONS) and will publish the document shortly.
- 3.4 BIS publishes a separate commentary document alongside the detailed data tables. This document outlines some changes over time and provides regional comparisons for the main types of building materials. In response to advice from the Assessment team, BIS redesigned the commentary document to present the main messages, give an indication of how the statistics are used and provide information about the economic context of the statistics. We suggest that BIS consider the points detailed in annex 2, in seeking to further improve the statistical release.
- 3.5 On 5 October 2011 the statistics were accidentally released at 11am rather than 9:30am. The BIS statistics website was updated manually and did not allow publication to be scheduled automatically. BIS has created a statistics section on its main website which allows the automatic publication of statistics releases at 9:30am.

## Annex 1: Suggestions for improvement

A1.1 This annex includes some suggestions for improvement to BIS's building material statistics, 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.

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|---------------------|--|
| <b>Suggestion 1</b> | Publish a report on the plans and progress of the <i>BMC</i> developments and their implementation (para 3.2). |
| <b>Suggestion 2</b> | Consider the points detailed in annex 2, in seeking to further improve the statistical release (para 3.4).     |

## **Annex 2: Compliance with Standards for Statistical Releases**

A2.1 In October 2010, the Statistics Authority issued a statement on *Standards for Statistical Releases*<sup>10</sup>. Whilst 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 releases associated with *Building Materials and Components*, this annex comments on compliance with the statement on standards.

A2.2 In implementing any Suggestions of this report (at paragraph 1.5) which relate to the content of statistical releases, we encourage the producer body to apply the standards as fully as possible.

### **Appropriate identification of the statistics being released**

A2.3 The title of the release shows the frequency of the release and the publication date but doesn't give the reference periods or coverage of the statistics. The release uses the standard logos and gives the name of the publishing organisation.

A2.4 The release web page describes the content of the release and provides links to the Excel/PDF files of tables and the separate commentary. It also provides links to other related material – a report of the BIS user survey, a document giving recent changes to the release, and links to past statistical releases in the series.

A2.5 The release includes the name of the responsible statistician and contact information.

### **Include commentary that is helpful to the non-expert and presents the main messages in plain English**

A2.6 BIS publishes a separate commentary document that outlines some changes over time and regional comparisons for the main types of building materials. The language is straightforward, although the meaning and coverage of 'disclosive regions' is unclear.

A2.7 BIS uses a range of suitable charts to illustrate the commentary. The document doesn't set out the overall main messages in the release. The chart presentation is untidy in places.

### **Use language that is impartial, objective and professionally sound**

A2.8 The text is impartial and the comments are in line with the statistics. The descriptions of proportions, changes and trends in the releases are appropriate. The release doesn't provide enough information on the quality of the statistics used to make these statements.

### **Include information about the context and likely uses**

A2.9 *BMC* includes little information about the wider context of the statistics, in relation to the broader economic position, and it doesn't include information about how these statistics are used. The release doesn't provide much

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<sup>10</sup> <http://www.statisticsauthority.gov.uk/news/standards-for-statistical-releases.html>

information on the policy and operational context of these statistics, including whether the statistics are used to monitor government targets and what they show in the context of those targets.

A2.10 The release doesn't include information about the reliability of the statistics or any other aspects of quality or potential uses.

**Include, or link to, appropriate metadata**

A2.11 The release doesn't include information about the sources and the methods used to compile these statistics. The release doesn't provide sufficient information about definitions and methods. However, the detailed tables have footnotes that provide some important explanatory information, such as highlighting where changes to methods have occurred.

A2.12 The release provides some explanation of revisions, indicating revised and provisional data. BIS includes an indication of the extent of revisions in the introduction to the detailed tables.

A2.13 The release gives information about how the statistics compare between the regions of England, Wales and Scotland. However it doesn't explain why figures for Northern Ireland are not given or where to find the statistics for Northern Ireland.

## **Annex 3: Summary of assessment process and users' views**

A3.1 This assessment was conducted from August 2011 to January 2012.

A3.2 The Assessment team – Penny Babb and Joe Cuddeford – agreed the scope of and timetable for this assessment with representatives of BIS in August. The Written Evidence for Assessment was provided on 9 September 2011. The Assessment team subsequently met BIS during October 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**

A3.3 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.

A3.4 The Assessment team received 5 responses from the user consultation. The respondents were grouped as follows:

BIS	1
Other central government	1
Commercial	3

A3.5 The users who responded to our survey used the statistics for briefing purposes, for monitoring trends in the volume and import/export statistics, and to obtain production and sales information for construction products at constant prices. They were satisfied that the statistics met their main needs and also with their engagement with the producers. There was interest in obtaining similar statistics for other construction products such as steel, timber and copper.

### **Key documents/links provided**

Written Evidence for Assessment document



