

**Department for Business, Innovation and Skills**  
**Construction Market Intelligence**

**Review of Building Material Statistics**

**Final Report**

**2010**

## **Acknowledgements**

The review team would like to thank everyone who took the time to contribute to this review, in particular the Business Data Division from the Office for National Statistics, the Construction Products Association, BIS colleagues and survey respondents.

## Contents

<b>Executive Summary .....</b>	<b>5</b>
<b>1 Introduction.....</b>	<b>8</b>
1.1 Overview of the Statistics .....	8
1.2 Background of the Review.....	8
1.3 Objectives .....	9
1.4 Scope.....	9
<b>2 Compilation of Building Material Statistics.....</b>	<b>10</b>
2.1 Coverage of Building Material Statistics .....	10
2.2 Construction Material Price Indices.....	10
2.3 Sand and Gravel.....	11
2.3.1 Sand and Gravel Marine-Dredged .....	11
2.3.2 Sand and Gravel Land-Won.....	12
2.4 Slate Data .....	13
2.5 Cement and Clinker .....	13
2.6 Brick Data .....	14
2.7 Concrete Blocks .....	14
2.8 Concrete Roofing Tiles .....	15
2.9 Ready Mixed Concrete .....	15
2.10 Imports and Exports.....	16
2.11 Measures for Improving the Existing Statistics .....	16
2.11.1 Coverage and Accuracy of Sample Panels .....	16
2.11.2 Response Rates .....	16
2.11.3 Methodologies on Survey Results Processing .....	17
2.11.4 Other Quality Issues.....	17
<b>3 Users and the Statistics used.....</b>	<b>19</b>
3.1 Website Usage for the Statistics .....	19
3.2 User Consultation Methodology .....	19
3.2.1 Preliminary User Consultation.....	19
3.2.2 User Survey.....	20
3.3 Survey Results .....	20
3.3.1 Types of Respondent.....	21
3.3.2 Uses of the Statistics .....	21
3.3.3 Impact of Discontinuing the Statistics .....	23
3.3.4 Respondent Views on the Quality of the Statistics.....	24
3.3.5 Construction Products Association’s Response.....	26
3.3.6 Respondent Requirements for the Statistics .....	27
3.3.7 Discussion of New Data Requirements .....	29
3.4 Examples of the uses of the statistics.....	29
<b>4 Compliance Cost Survey .....</b>	<b>31</b>
4.1.1 Compliance Costs .....	31
4.1.2 Main Findings .....	32
<b>5 Compliance with the Code.....</b>	<b>34</b>
5.1 UKSA Assessment and Designation.....	34
5.2 Summary of Strengths and Weaknesses .....	34
5.3 Detailed Assessment of Compliance with the Code.....	35
5.3.1 Principle 1 and Protocol 1: Meeting User Needs and User Engagement .....	35

5.3.2	Principles 2 and 3: Impartiality and Objectivity, and Integrity .....	35
5.3.3	Principle 4: Sound Methods and Assured Quality .....	36
5.3.4	Principle 5: Confidentiality .....	36
5.3.5	Principle 6: Proportionate Burden .....	36
5.3.6	Principle 7: Resources.....	37
5.3.7	Principle 8: Frankness and Accessibility .....	37
5.3.8	Protocol 2: Release Practices .....	38
5.3.9	Protocol 3: Administrative Sources for Statistical Purposes .....	38
<b>6</b>	<b>Conclusions and Recommendations .....</b>	<b>39</b>
6.1	Options for Publication of the Building Material Statistics.....	39
6.2	Compilation of Building Material Statistics .....	39
6.3	User Survey.....	40
6.4	Compliance Cost Survey.....	41
6.5	Compliance with the Code.....	41
	<b>Appendices .....</b>	<b>42</b>
	Appendix 1 Other Related Building Material Data Sources.....	42
	Appendix 2 User Questionnaire.....	43
	Appendix 3 Members of the Project Board .....	49

# Executive Summary

This report presents findings of a review of building material statistics produced by the Construction Market Intelligence (CMI) Branch of the Department of Business Innovation and Skills (BIS).

## Objectives and Scope of the Review

The main objectives of the review include:

- Ascertain user needs for the statistics and their views on the quality of the statistics
- Identify options for changes
- Estimate compliance costs incurred by the regular data inquiries
- Assess compliance with the Code of Practice for Official Statistics
- Examine whether data collection methodologies used are fit for purpose

The review covers the following building materials and outputs:

- Sand and Gravel
- Slate
- Cements and Clinker
- Bricks
- Concrete Building Blocks
- Concrete Roofing Tiles
- Construction Material Price indices

Although data on imports and exports of selected building materials was included to assess whether it meets user needs, the methodology of compiling the data is the responsibility of HM Revenue and Customs and is therefore outside the scope of the review.

## Outline of the Review

The review of building material statistics documented and examined data collection and compilation methodologies used to produce the statistics. It identified user needs and requirements for the statistics and ascertained their views on quality of the statistics through user consultation. Then a respondent burden survey was conducted to estimate the compliance costs incurred by the regular data inquiries, and to identify areas to reduce respondent burdens. The review also assessed the extent to which the statistics comply with the Code of Practice for Official Statistics.

## Main findings and conclusions

The production of the statistics draws on a multitude of data sources and requires coordinated efforts from CMI, data suppliers and industry firms. The findings of the review indicate that the current data collection methodologies need improving to address various quality issues such as the coverage and accuracy of data inquiry panels.

The statistics have users from various backgrounds with a variety of purposes. Main uses include monitoring market information and assessing industry trends. Supplier firms and trade associations account for more than half of respondents. The majority of respondents, particularly those from the construction industry, consider the statistics essential and helpful. Respondents' views on the quality

of the statistics are mainly positive, although they are least satisfied with the information available on how data is collected, indicating improvement needed in this area. The review also identified several user requirements for both existing statistics and new data.

A compliance cost survey was carried out in line with the guidelines set out in the Prime Minister's instructions on the control of government statistical surveys<sup>1</sup>. It provides an estimate of compliance costs at £138,627 for seven regular data inquiries, and suggests measures to reduce respondent burdens such as encouraging the wider use of electronic data submission systems.

To prepare for a UK Statistical Authority assessment, the review assessed the extent to which BIS building material statistics comply with the Code of Practice for Official Statistics. The statistics are strong in the areas of integrity and proportionate burdens but require some development work in other aspects such as quality and methodology in order to fully comply with the Code of Practice for Official Statistics.

## **Recommendations**

The main recommendations of the review are:

### *Improving the methodologies used to compile the statistics*

- 1. The coverage and accuracy of the sample panels used in the data inquiries should be regularly monitored and checked against other sampling frames and with relevant trade associations to ensure the representativeness of the data. (Section 2.11.1)**
- 2. CMI should consider options for improving response rates, such as making voluntary inquiries with persistent low response rates compulsory, and working with ONS to increase use of Secure Electronic File Transfer (SEFT). (Section 2.11.2)**
- 3. Methodologies used to process survey results should be improved. (Section 2.11.3 and 2.11.4)**
- 4. Consider sharing the responsibility for collecting and publishing the statistics with others. (Section 2.11.4 and 6.1)**
- 5. Users should be consulted about ceasing the regional brick data and the slate data affected by quality issues. (Section 2.11.4)**

### *User Consultation*

- 6. Wide and regular user consultation should be maintained through various means such as meetings of Consultative Committee on Construction Industry Statistics and periodic on-line consultations.**

### *User requirements*

---

<sup>1</sup> <http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/survey-control/index.html>

7. **CMI should look into publishing more data alongside the existing statistics as requested. (Section 3.3.6)**
8. **CMI should investigate how to modify the coverage of the statistics by replacing obsolete materials with new ones, maintaining their relevance to users and affordability. (Section 3.3.7)**

*Compliance with the Code*

**CMI should:**

9. **Provide statistical quality information which could be documented in the form of metadata or quality reports. (Sections 5.3.1 and 5.3.3)**
10. **Publish supporting commentary. (Sections 5.3.1 and 5.3.7)**
11. **Publish a revisions policy, and explain the nature and extent of revisions when revised statistics are released. (Section 5.3.2)**
12. **Set out a quality improvement plan to address quality issues identified during this review. (Section 2.11.1, 2.11. 4, 2.11.3 and 5.3.3)**
13. **Ensure CMI staff who deal with confidential data sign declarations covering their obligations under the Code. (Section 5.3.4)**
14. **Include the name of the responsible statistician in the publication. (Section 5.3.8)**
15. **Publish a statement of administrative sources used to produce the import/export outputs. (Section 5.3.9)**

# 1 Introduction

## 1.1 Overview of the Statistics

BIS publishes *Monthly statistics of building materials and components* covering the following statistics on selected building materials:

- monthly data on price indices, bricks, cement and concrete blocks
- quarterly data on sand and gravel, slate, concrete roofing tiles and ready-mixed concrete
- annual and quarterly information on the value of overseas trade in selected construction materials and components in the UK

Since its inception in 1949, the publication has presented timely market information on the UK construction products industry, which employs about 0.9 million people in over 20,000 firms with a turnover of around £50billion. As a central data source on UK building materials, the statistics have been a valuable tool for ascertaining the latest industry trends, thereby contributing to the BIS mission of building a dynamic and competitive UK economy.

Industry and government users have used the statistics for a variety of purposes, including policy development and evaluation concerning the construction products industry, and monitoring market trends. In a wider context, the data is regularly reported in the construction press to facilitate market analysis and business planning for its wide range of readers. The statistics are also increasingly used by financial institutions for assessing market information and industry trends.

## 1.2 Background of the Review

In accordance with the *Statistics and Registration Service Act 2007*, the UK Statistics Authority launched the *Code of Practice for Official Statistics (1st edition)*<sup>1</sup> in January 2009, which set out a common code of practice for all National Statistics. Furthermore, the Government Statistical Service published the supplementary guidance to the Code - *National Statistician's Guidance: Quality, Methods and Harmonisation (2009)*<sup>2</sup>. The Code and Guidance have set out a new statutory framework for ensuring a coherent and trustworthy statistical service to the public.

Lying at the heart of the new framework is engaging with users effectively to raise trust and confidence in National/Official statistics. Key to achieving this is conducting reviews to ascertain uses made of the statistics, to identify user needs, and to assess whether statistical outputs are fit for purpose. The Guidance also further recommends that periodic reviews should be part of the survey control procedure set out in the Prime Minister's instructions on the control of government statistical surveys<sup>3</sup> for statistics derived from business and local authority survey data. Our review was guided

---

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

<sup>2</sup> <http://www.statisticsauthority.gov.uk/national-statistician/guidance>

<sup>3</sup> <http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/survey-control/index.html>

by this new framework. Building material statistics were also part of the review on construction statistics in 2001<sup>1</sup>.

### 1.3 Objectives

The objectives of the review include:

1. Engage with users to ascertain their views on the statistics and to identify their needs.
2. Investigate whether the statistics in their present form continue to meet user needs, and identify options for change.
3. Review the regular surveys used to produce the statistics, and identify areas to reduce the respondent burdens in accordance with the Prime Minister's instructions on the control of government statistical surveys (1999)<sup>2</sup>.
4. Discuss the extent to which the statistics adhere to the *Code of Practice for Official Statistics*.
5. Investigate whether the methodologies used are appropriate and fit for purpose.

### 1.4 Scope

As part of the review, a user consultation exercise aimed to identify whether there are needs that justify continuing the statistics, as well as to ascertain users' views on key dimensions of the quality of the statistics.

A respondent burden survey was carried out to estimate up-to-date compliance costs for seven regular data inquiries and to identify potential measures to reduce respondent burdens.

The review examined the methodologies used to compile the following building material statistics:

- Sand and Gravel
- Slate
- Cements and Clinker
- Bricks
- Concrete Building Blocks
- Concrete Roofing Tiles
- Construction Material Price indices

Having outlined various quality issues caused by the methodologies adopted, the review endeavoured to propose measures for enhancing the quality of the statistics. Finally, the review assessed the extent to which these statistics comply with the Code of Practice for Official Statistics.

---

<sup>1</sup> <http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/nat-stats-qual-revs/qual-revs-by-theme/people-and-places/national-construction-statistics-review-2001.pdf>

<sup>2</sup> <http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/survey-control/index.html>

## **2 Compilation of Building Material Statistics**

### **2.1 Coverage of Building Material Statistics**

*BIS Monthly Statistics of Building Materials and Components* comprises the following statistical outputs:

- Construction material price indices
- Deliveries, production and stocks of slate
- Sales of sand and gravel
- Production, deliveries and stocks of cement and clinker
- Production, deliveries and stocks of bricks
- Production, deliveries and stocks of concrete blocks
- Deliveries of ready-mixed concrete
- Production, deliveries and stocks of concrete roofing tiles
- Imports and exports of selected construction materials

Data required for producing the above outputs is collected from a variety of sources, and then is processed using different methods. Furthermore, some outputs of materials consist of data on different sub-types of materials which is collected separately from various sources. For example, the sand and gravel (S&G) output includes both marine dredged S&G and land won S&G data which is collected separately from respective producers.

In the following sections, we outline coverage, data sources and data collection methods for each output, and discuss main issues identified in the current methodologies used.

### **2.2 Construction Material Price Indices**

CMI publishes monthly construction material price indices covering the following UK construction sectors:

- New Housing
- Other New Work
- Repair and Maintenance
- All work

The compilation of the material price indices involves the following indices:

- BIS price adjustment formulae indices
- BIS Resource Cost Indices
- Cost indices of building labour
- Cost indices of building plant and materials
- Producer price indices (PPIs) of construction materials provided by ONS

Apart from ONS producer price indices, all the above price cost indices (PCIs) are produced and published separately by the Building Cost Information Service (BCIS) in the following publications available from the BCIS website: <http://www.bcis.co.uk/online>

- *Quarterly Building Price and Cost Indices*
- *Price Adjustment Formulae for Construction Contracts*

Data used for producing PCIs is collected mainly from questionnaire-based surveys with a systematic sampling scheme, and partly from professional associations (for compiling building labour indices).

The PPIs used for compiling the material price indices are prepared monthly by ONS and contain a number of categories of materials: bricks, concrete blocks, sand and gravel, crushed rock, cement, fibre cement, fibre cement products, concrete roofing tiles, ready mixed concrete, and slate. Further information on the production of ONS PPIs can be found in its latest report on the PPIs triennial review<sup>1</sup>.

The construction material indices are compiled monthly by BCIS using a Laspeyres formula with weights reflecting the relative value of purchases of these materials, and components for new housing building, other new work, repair and maintenance, and for the whole range of construction activity.

In addition to construction material price indices by sectors, CMI also publishes 43 sets of producer price indices (PPIs) of selected construction materials monthly and their annual averages provided by ONS. Data sources for these individual PPIs are the same as those involved in the production of the aforementioned material price indices.

## **2.3 Sand and Gravel**

The sand and gravel output, published quarterly, provides sale volumes of the material in Great Britain as well as breakdowns by Government Office Regions in England, Wales and Scotland, and by English & Welsh counties and Scottish regions. Data is collected and compiled by ONS on behalf of BIS.

Production of sand and gravel output involves two types of data:

- Sand and gravel marine-dredged
- Sand and gravel land-won

### **2.3.1 Sand and Gravel Marine-Dredged**

Sand and gravel (S&G) marine-dredged data is collected using a quarterly statutory inquiry. A total of 59 firms are selected for the inquiry from the British Geological Survey (BGS) directory for information on wharves. This inquiry sample panel is supposed to cover all marine dredged (MD) sites, as the sand and gravel marine-dredged inquiry is intended to be a census.

---

<sup>1</sup> <http://www.statistics.gov.uk/articles/ppi/PPI-Triennial-Review-Report-2009.pdf>

To examine the coverage of the sample panel, ONS carried out extensive checks of the BGS 2008 directory against the 2009 sand and gravel MD panel, and found that 19 MD sites were missing. These missing sites were sent a sand and gravel MD questionnaire during the 2010 Q1 inquiry. So far, six out of 19 have responded and the remainder will be chased for responses.

### **Imputation Method for Sand and Gravel data**

Non-response sand and gravel data is imputed using responding contributors' data within the same region group.

For each region group, an imputation factor for each responding contributor is calculated as follows:

$$\text{Imputation factor} = \frac{\text{current\_value} - \text{previous\_value}}{\text{previous\_value}}$$

Then a change in the non-response data over the current and previous periods is estimated by multiplying the non-responder's value of the previous period by the average of the imputation factors in the same group. The estimated change is then added to the non-responder's value from the previous period to produce the imputed non-response value for the current period.

If there are fewer than three responding contributors in a group, an average imputation factor of all responding contributors in the inquiry would be used for imputing the non-response data.

The imputation method described above can only be applied to non-response data which has data for the previous period. For persistent non-responses where there has been no data for a long time, it is constructed using the corresponding Annual Minerals Raised Inquiry (AMRI) figures from the previous year.

### **2.3.2 Sand and Gravel Land-Won**

Sand and gravel land-won data is collected using a quarterly voluntary survey with an average 90% response rate. A total of 226 firms are selected from contributors to the Annual Minerals Raised Inquiry. AMRI is a census which is checked against the BGS directory to ensure full coverage.

Non-response data is imputed in the same way as marine-dredged sand and gravel data except that land-won sand and gravel data is grouped by both the region and volumes of sales reported by contributors to the land-won sand and gravel inquiry.

Quarterly sand and gravel data is grossed up to AMRI as described in the following section.

### **Grossing Method for Sand and Gravel (Land Won) Data**

Grossing factors are calculated for each region and each type of sand and gravel land-won data. Sand and gravel contributors are selected from the AMRI panel of contributors so that the AMRI panel is treated as the sand and gravel sampling universe.

Factors are calculated by dividing the total of each product from all land-won AMRI contributors by the total value of selected Sand and Gravel inquiry contributors in the quarterly query for each product:

*Grossing factor = product total of all contributors / product total of contributors to the quarterly inquiry*

New grossing factors are calculated in each quarter to account for births & deaths in the panel. These factors are applied to aggregated data to get estimated regional totals.

Grossing up to AMRI helps estimate the total of the sand and gravel data, however AMRI only contains annual data from the previous year, meaning that the calculation of a grossing factor is based on outdated figures. This might cause the sand and gravel output to reflect the current market trend inaccurately when there are large variations in the sand and gravel data over the survey periods, particularly in a volatile market. In this situation, grossing factors calculated using outdated figures would fail to show a current market trend. This was seen in the recent recession, when figures on the sales of sand and gravel did not fall as quickly as expected.

## **2.4 Slate Data**

The slate output consists of quarterly volume data on production, deliveries and stocks of slate in GB. Data is collected by ONS using a quarterly inquiry with a panel of 13 firms/business sites. Responses to the questionnaire are voluntary with a 100% response rate.

There is no grossing method applied to the data, as the data collection method is intended to a census for historical reasons. However, ONS has closely examined the slate panel used in the inquiry and discovered several issues as described below.

ONS carried out checks of the BGS 2008 directory against the 2009 Slate panel, and found that 14 Pure Slate sites were missing from the quarterly slate panel. These 14 missing sites were sent a slate questionnaire in March 2010. So far, none of these sites has responded to the quarterly survey. This means that the current slate panel covers less than half of pure slate producers in the market. In addition, there are three sites returning quarterly slate data, which produce ceramic slates and therefore are not listed as pure slate sites in the BGS directory

Though slate waste is included in the quarterly survey, this should only be saleable slate waste. Among slate waste sites in the quarterly inquiry panel, one forestry enterprise site was found to supply figures on slate waste which is not for sale, and thus it should be excluded from future inquiries.

These issues need to be addressed in order for the slate output to reflect the market information more accurately. ONS has taken steps to compare slate producers available from other slate data sources such as BGS and AMRI, with a view to improving the current methodology. It was found that the slate data in AMRI include non-pure slate data sources, which prevents AMRI from being a reliable source for grossing to correct coverage errors. The questionnaire would be sent to other pure slate firms which are in the BGS directory, but not in the current slate inquiry panel.

## **2.5 Cement and Clinker**

The cement and clinker data covers quarterly volume data on production, deliveries and imports/exports of cement with cementitious material and production of clinker in GB. The data is

collected from all four cement and clinker production firms in Great Britain and compiled on behalf of the Mineral Products Association by an accountancy firm.

## **2.6 Brick Data**

Brick data comprises monthly volume data on production, deliveries and stocks of bricks in GB, which are further divided into different types of brick and material:

- Brick types
  - All types
  - Commons
  - Facings
  - Engineering
- Material types
  - All materials
  - Clay
  - Sand-lime
  - concrete

Among these, sand-lime data has been published together with clay data since 1997 to prevent disclosive data being published. In addition, CMI publishes quarterly brick data for English regions, Wales and Scotland.

Brick data is collected by ONS, who send a questionnaire to a panel of 76 companies each month. As the panel hasn't been updated since its inception in 1987, it is not clear if the panel includes all the producers, though no grossing is applied to the data.

Responses are voluntary and the average response rate is 98%; non-response data is constructed using figures from the previous month. A main issue is that a relatively small sample size used in the inquiry has rendered a large amount of regional brick data disclosive and un-publishable, thereby affecting the utility of the data.

## **2.7 Concrete Blocks**

Concrete block output comprises quarterly volume data on production, deliveries and stocks of blocks in GB with breakdowns by types of block and by regions - English regions, Scotland and Wales.

Block data is collected by ONS with dual periodicity – monthly and quarterly. Responses are voluntary for the monthly block questionnaire which is sent out to a panel of 48 business sites. An average response rate for the monthly block questionnaire is 80%. Non-response data is constructed by figures from the previous returns. Responses to the quarterly block survey, which is statutory, are obtained from a panel of 45 business sites with an average response rate of 91%. There are four firms with multiple sites included in both the inquiries, but sites sampled in the quarterly inquiry are different from those selected in the monthly inquiry. This means that contributors to the monthly and quarterly inquiries could be a firm or a business site from a large company with multiple sites, and monthly inquiry contributors are distinct from quarterly ones.

Data from the monthly block inquiry is available ahead of the quarterly results, so it is published earlier than the quarterly data. Before being published, the monthly data needs to be grossed up to include the activity of those quarterly contributors to ensure the monthly figures cover all contributors. The method used to gross the monthly block data is described in the following section. As the monthly data is also used for estimating quarterly data, the published quarterly figures include results from both the monthly and quarterly inquiries.

### **Grossing Monthly Block Data**

Quarterly data is required for calculating grossing factors used to estimate the total of monthly data. Grossing factors are estimated for three consecutive months following the quarter when the quarterly data is received. For example, in the second quarter (April-June), a grossing factor  $F_{q3}$  is calculated for July, August and September as follows:

$$F_{q3} = \frac{N_{q2} + M_{q2}}{M_{q2}}$$

Where  $N_{q2}$  denotes a total of block production in the second quarter from all quarterly contributors, and  $M_{q2}$  stands for a total of block production in the second quarter from all monthly contributors.

These factors are then used for grossing monthly block data. Grossing factors are calculated for each category - block types and delivery, production or closing stock. When processing monthly block data, values for each contributor are multiplied by the corresponding grossing factors for each category to gross up the monthly data. Then the grossed monthly data is summed to calculate a monthly total for each category.

## **2.8 Concrete Roofing Tiles**

Concrete roofing tile data consists of volume data on production, deliveries and stocks of the material in GB.

Data is collected by ONS quarterly using a panel of 6 firms/business sites. Although the inquiry is voluntary, response rates consistently achieved 100% in the last year. No grossing method is applied to the data.

## **2.9 Ready Mixed Concrete**

Ready mixed concrete data contains quarterly delivery volumes of the material in the UK.

The data is collected and compiled by the Mineral Products Association (MPA). Sales volumes are collected from MPA members monthly. Quarterly trends are compared with those from the previous year, and then the whole UK market volumes are estimated before sending to CMI to publish. The UK volume, published quarterly, comprises the MPA figure (97%) and a small margin for non MPA members (3%).

One long running issue is that the estimated UK market volumes have probably always under-recorded the total market as there is a large number of very small companies and lots of market entrants and leavers from time to time. Furthermore, it is very difficult to capture this part of the

market, which could amount to one million cubic metres per year. The figures supplied therefore provide a trend, but represent some under-recording of the market.

## **2.10 Imports and Exports**

Building material statistics include quarterly imports/exports data on selected construction Materials in the UK. The data, which is provided by HM Revenue & Customs, is derived from administrative data sources. The methodology for compiling the data is outside the scope of this review.

## **2.11 Measures for Improving the Existing Statistics**

In this section, we summarise quality issues in the existing statistics, and discuss possible measures for improving the quality of the statistics.

### **2.11.1 Coverage and Accuracy of Sample Panels**

As there is no historical methodology documentation on how data is collected for the main types of building material including sand and gravel, slate, bricks, blocks and concrete roofing tiles, it is not clear how the sampling panels were created and maintained. Furthermore, since the data collection methods for main types of material were intended to be censuses, this gives rise to concerns about the coverage and accuracy of the panels.

Cross-checking with other survey sampling frames such as AMRI and BGS has been proved effective for identifying missing contributors for the sand and gravel marine dredged and slate panels. Trade associations are also a valuable source for checking the coverage of the panels. Sample panels for bricks, blocks and concrete roofing tiles could be compared with other sampling frames where they exist to check the coverage. If there are no relevant business registers, trade associations could be considered as an alternative source. The coverage of the sample panels should be checked on a regular basis to monitor the market leavers and entrants, so that the panels would be systematically maintained and updated.

Apart from having incomplete coverage, the slate panel also contains contributors who produce non-pure slates and non-saleable slate waste. These contributors should be excluded from future slate inquiries.

### **2.11.2 Response Rates**

Response rates to the building material data inquiries vary with different types of material data. Block data inquiries have relatively low response rates due to persistent non-responders. Non-response data is usually constructed or imputed as described in the previous sections. Data would be revised if non-responders submitted the data later. For persistent non-responders, who often are also major firms in the industry, data was constructed using the figures from the previous year due to the lack of recent data. This directly affected the quality of the data, as the constructed data for persistent non-responders is less likely to reflect the current market trend.

In addition, although more businesses from other survey sampling frames were identified for the panels such as pure slate producers from the BGS directory, response rates were very low from these newly identified producers.

Apart from continually pursuing non-respondents, other measures could be employed to address problems caused by non-responses. For example, the ONS electronic data submission system, Secure Electronic File Transfer (SEFT), has made the data submission process quicker and improved the response rate to the brick data inquiry from the previous year's 74% to 98% this year, though only a small number of data suppliers are able to access SEFT at present. So making the electronic data submission systems more widely available to other respondents could improve the response rate. Similarly, an on-line data submission system could be conducive to improving response rates, although implementation of an on-line system may be subject to ONS resource constraints. Another option is to make the voluntary inquiries that have low response rates/persistent non-responders statutory.

### **2.11.3 Survey Results Processing**

Although there is basic survey results processing in place, methodologies used are not consistent across different building material data inquiries, and some methods need improvements to be in accordance with the "scientific principles" required by the Code of Practice for Official Statistics. For example, imputation methods vary with different surveys. For sand and gravel surveys, a model based imputation approach is applied to estimate non-responders' values using the average movement of the firms within the same stratum. In the other building material surveys, previous figures received from non-responders were used as their returns, which is often problematic for constructing persistent non-responders' data. In collaboration with ONS, CMI should look to improve imputation methods and decide whether it is appropriate to adopt a common, agreed imputation method for all affected surveys.

A grossing process is required to multiply up results from sample surveys so that data represents the whole population. Currently, a grossing process has been used in two inquiries - the monthly block inquiry and the land-won sand and gravel inquiry. The monthly block inquiry data is grossed up to include data from the quarterly block inquiry. The land-won sand and gravel survey data has been grossed up using Annual Mineral Raised Inquiry (AMRI) annual data from the previous year, which might introduce a bias as discussed below in 2.11.4. No grossing method is applied to the other building material inquiries, but the coverage of sample panels used in these inquiries needs to be checked. Once a survey universe is identified, an appropriate grossing method should be used to estimate a population total of survey results obtained from inquiries with incomplete coverage. Grossing factors comprising design and model weights derived from appropriate auxiliary variables could be used to gross up sample survey results, circumventing the difficulty of identifying a suitable grossing source.

The benefits of improvements to methodologies in enhanced statistical quality of the data will need to be evaluated against any additional costs of new sample designs and software systems.

### **2.11.4 Other Quality Issues**

There are other quality issues affecting specific types of statistics.

As reported in Section 2.6, a large amount of regional brick data is disclosive, which has rendered the data un-publishable, thereby making the regional brick statistics less useful to users. CMI could look into the possibility of sharing the responsibility for collecting and publishing the statistics with relevant trade associations like the Brick Development Association, which might circumvent the disclosure issues affecting the quality of the regional brick data.

Section 2.3.2 discusses the bias caused by using the AMRI sand and gravel contributor panel for grossing up the sand and gravel land won data. Although no alternative suitable panel has been identified for grossing the sand and gravel land won data, a comparison of un-grossed sand and gravel data and grossed sand and gravel data over the periods could shed light on how large a bias is caused by the grossing method, which in turn will help users to decide if the data is fit for purpose. CMI should assess any possible bias in the sand and gravel data introduced by the grossing method, and look into how to correct it.

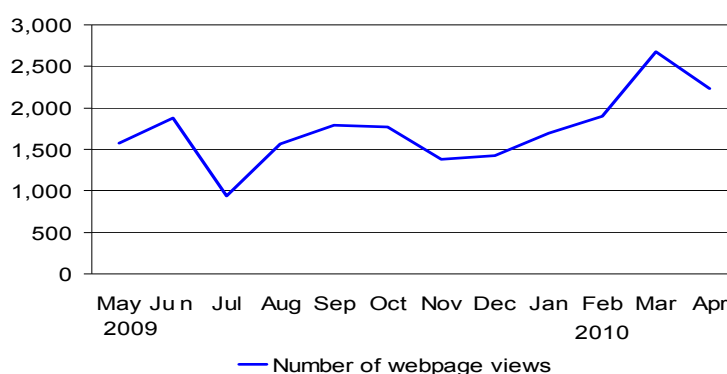
As a last resort, CMI could consider ceasing the above statistical outputs affected by quality issues, although this should be done after consulting users.

## 3 Users and the Statistics used

### 3.1 Website Usage for the Statistics

As the building material statistics are published on the BIS webpage, the number of visits to the publication webpage can indicate how many users of the statistics there are, although a user could make multiple visits to the webpage in the same month. Figure 3.1 illustrates how many visits made to the webpage where the statistics are published over the last 12 months. The recent surge in the number of visits to the webpage could be due to the consultation held over the period between December 2009 and March 2010.

Figure 3.1 Website usage for the statistics  
(<http://bis.constuction/buildidng/index.esp>)



### 3.2 User Consultation Methodology

Understanding users of the statistics is fundamental to engaging with them effectively so as to improve the public value derived from the data. As part of the review, we conducted a consultation to ascertain users' views on the quality of the statistics, to understand how they make use of the data and to identify their needs.

The user consultation was conducted in two stages:

- Preliminary user consultation
- A user survey

The preliminary user consultation was a scoping exercise conducted mainly through interviews, allowing us to probe users' principal interests and needs for the statistics, whereas a user survey was carried out via on-line and postal surveys using a questionnaire included in the Appendix 1.

#### 3.2.1 Preliminary User Consultation

During the preliminary user consultation, we conducted face-to-face interviews with several government and industry users. A preliminary user consultation questionnaire was used in the interviews with structured open questions covering:

- the main use of the statistics
- the usefulness of the statistics
- user requirements in terms of details, coverage and types of statistics
- problems encountered when using the statistics
- Impact of discontinuation of the statistics

The main findings from the preliminary user consultation include:

- Most users reported that disruption to their work would occur if the statistics were discontinued.
- Extent of disruption was expected to be more severe by users from trade associations and firms than government users.
- BIS has been regarded as an independent and impartial body for publishing and collecting the statistics as well as a central place to find information on building material statistics.
- Most users only use statistics at national level, so there is scope to reduce regional analysis.
- A number of users would like to see light side products and other building materials such as timber to be covered in the statistics

Regarding the impact of discontinuing the statistics, main concerns cited by interviewees are as follows:

- Some BIS building material statistics such as block data are unique with no other alternative data sources available.
- Data collected by individual trade associations couldn't cover the whole market, while BIS is regarded as an independent and impartial body to collect and publish the data.

### **3.2.2 User Survey**

Having conducted the preliminary user consultation, we carried out a full scale user survey to involve a wide range of users from various backgrounds. Due to the lack of an up-to-date sampling framework, we collected data through a web survey, resulting in a self-selected sample. During the review, we also carried out a postal survey using former subscribers' addresses as a sampling framework, complementing the on-line survey.

We designed a web questionnaire which primarily contains multiple-choice questions alongside two open questions inviting comments. The questionnaire was designed to elicit core user needs and their views on key dimensions of statistical quality. It was developed based on the results obtained from the preliminary user consultation, and was reviewed by key stakeholders and BIS survey experts to ensure correct interpretation and a logical order of questions. A questionnaire used in the subsequent postal survey contained the same questions and layout as the web questionnaire.

Responses received from the on-line and postal surveys produced both qualitative and quantitative data which were processed and analysed using the Microsoft Excel package.

## **3.3 Survey Results**

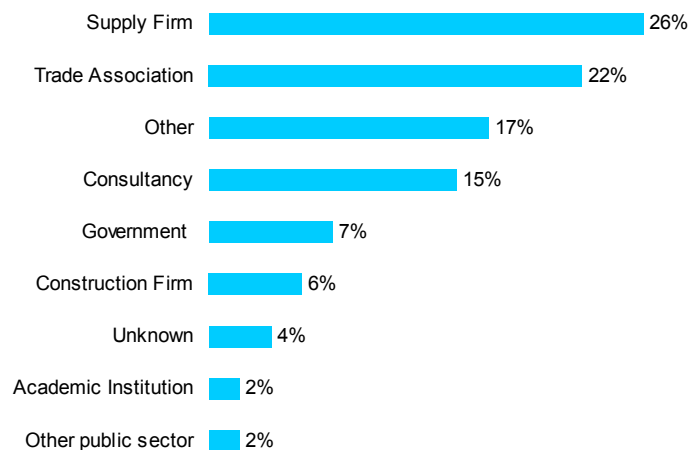
This section reports the results of the analysis of survey data, including types of respondent, use of the statistics, users' perceptions on the quality of the statistics and their key requirements for the statistics. In this analysis, percentages are presented as whole numbers for ease of reading. Rounding was performed at the last stage of calculation.

A total of 55 responses were received, including postal responses. As an industry user representative on the Project Board for the review, the Construction Products Association (CPA) provided a consensus response agreed by its steering committee on behalf of members. To distinguish this type of collective response from others, the CPA response is reported separately from other survey results.

### 3.3.1 Types of Respondent

Respondents to the survey came from a wide range of organisations, reflecting a diversity of users of the building material statistics. Figure 3.2 provides an overview of the organisations where respondents work or study. Respondents from trade associations and supply firms make up the two largest groups, accounting for nearly half of total respondents.

Figure 3.2 Breakdown of types of respondent

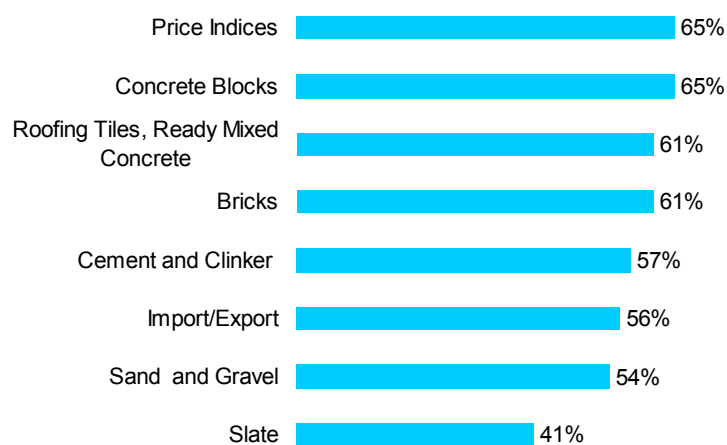


*The 'Other' group includes financial services, a solicitor, a quarry operator, and a manufacturer. Two respondents who didn't answer this question are classified as 'unknown'. 'Other public sector' covered local authorities.*

### 3.3.2 Uses of the Statistics

In terms of types of statistics used, both statistics of concrete blocks and statistics of price indices were used by the largest proportion of respondents (65%) followed by roofing tiles & ready mixed concrete (61%) and bricks (61%). In comparison, only 41% respondents use the statistics of slate, as indicated in Figure 3.3

Figure 3.3 Type of statistics used



Furthermore, less than half of respondents using the statistics at national level also use the sub-type or regional statistics. There are five respondents who only reported the use of subtype or regional statistics.

To discern respondents' principal interests in the various statistics, we analysed the uses of the statistics by types of respondent as displayed in Table 3.1. The table indicates that supply firms showed most interest in price indices and were least interested in slate data, whereas users of slate data are mainly from consultancy and the 'other' group.

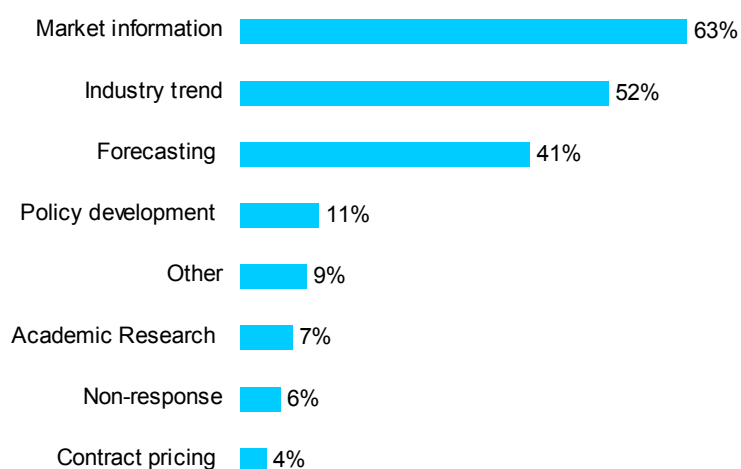
Table 3.1 Statistics used by types of respondent

	Construction Firm	Consultancy	Government	Other	Supply Firm	Trade Association	Unknown	Total Use
<b>Blocks</b>	3	6	2	7	9	8	1	36
<b>Price Indices</b>	2	7	1	6	10	9	1	36
<b>Roofing Tiles &amp; RMC</b>	2	6	3	6	8	6	2	33
<b>Cement and Clinker</b>	1	6	2	5	8	8	1	31
<b>Bricks</b>	2	6	2	6	7	9	1	33
<b>Import/Export</b>	1	5	3	5	8	8	1	31
<b>Sand and Gravel</b>	3	5	1	7	6	5	1	28
<b>Slate</b>	1	6	2	6	4	2	1	22

*An academic institute is included in the 'Other' group alongside financial services, a solicitor, a quarry operator, and a manufacturer. Two respondents who didn't supply information for where they work are classified as 'unknown'.*

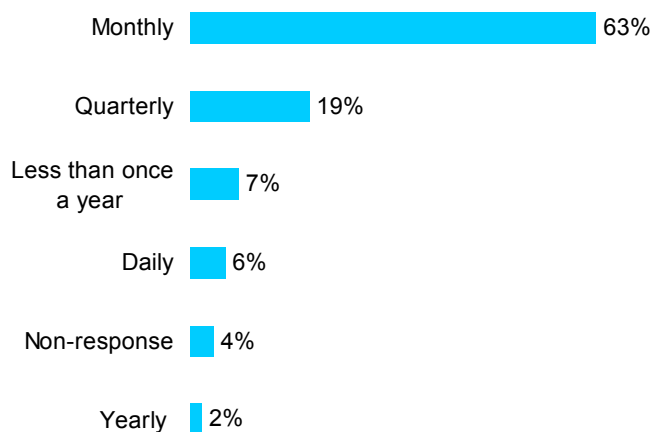
Figure 3.4 displays the results concerning respondents' purposes for using the building material statistics. The largest proportion of respondents (63%) use the statistics for monitoring market information, followed by assessing industry trends (52%).

Figure 3.4 Purposes for using the statistics



Regarding the frequency of uses of the statistics, Figure 3.5 illustrates how often respondents use the statistics. It indicates that most respondents use the statistics monthly, which is also the frequency that the statistics are published.

Figure 3.5 How often respondents use the statistics



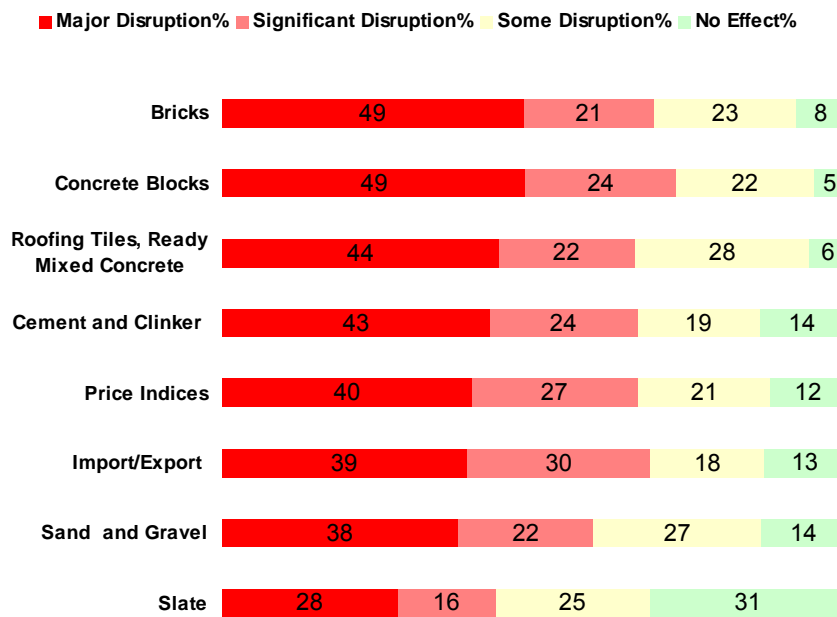
### 3.3.3 Impact of Discontinuing the Statistics

Figure 3.6 indicates how respondents' work would be affected if the statistics were discontinued. The effect of discontinuing the statistics on respondents varies according to the types of statistics, but in the main, a majority of respondents felt that discontinuing the statistics would cause major or significant disruptions on their work. Slate is the only material with less than half respondents (44%) reporting major or significant disruption to their work if the slate statistics were discontinued.

The findings could be interpreted in the light of the importance placed on the statistics in the respondents' comments as follows:

- The statistics are invaluable/indispensable to their work
- There are no replacement data available in the public domain
- The statistics are the only official data sources in this area

Figure 3.6 Impact of discontinuing the statistics



### 3.3.4 Respondent Views on the Quality of the Statistics

In the survey, we ascertained the extent of respondents' satisfaction with the quality of the building material statistical outputs in line with the following European statistical system (ESS) dimensions of quality:

- Timeliness
- Accuracy
- Relevance
- Accessibility and clarity
- Coherence (comparability with other data)

In addition we also asked respondents' views on

- Information available for how data is collected
- Level of details in the statistics

As illustrated in the tables below, a large proportion of respondents were satisfied with the quality of each type of statistics in terms of relevance, accuracy and timeliness. However, it is noticeable that substantial proportions of respondents ranging from 21% to 44% chose the 'Neither agree nor disagree' option on the question of accuracy, which could be attributed to the lack of information on data collection methods and data quality. Users' perceptions on the quality of the statistics might change after CMI publishes documentation on data quality and data collection methodologies.

Table 3.2 I am satisfied with the relevance of the statistics to my work.

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neither agree nor disagree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>Roofing tiles/RMC</b>	30%	54%	5%	11%	0%
<b>sand&amp; gravel</b>	31%	50%	13%	6%	0%
<b>slate</b>	19%	48%	22%	7%	4%
<b>cement &amp; clinker</b>	37%	43%	11%	9%	0%
<b>bricks</b>	31%	53%	14%	3%	0%
<b>concrete blocks</b>	33%	58%	3%	3%	3%
<b>price indices</b>	26%	40%	17%	12%	5%
<b>import/export</b>	33%	39%	18%	6%	3%

Table 3.3 I am satisfied with the accuracy of the statistics.

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neither agree nor disagree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>Roofing tiles/RMC</b>	20%	43%	34%	0%	3%
<b>sand&amp; gravel</b>	17%	50%	27%	3%	3%
<b>slate</b>	25%	32%	43%	0%	0%
<b>cement &amp; clinker</b>	24%	52%	21%	3%	0%
<b>bricks</b>	30%	48%	20%	0%	3%
<b>concrete blocks</b>	19%	50%	28%	0%	3%
<b>price indices</b>	10%	48%	33%	8%	3%
<b>import/export</b>	19%	28%	44%	6%	3%

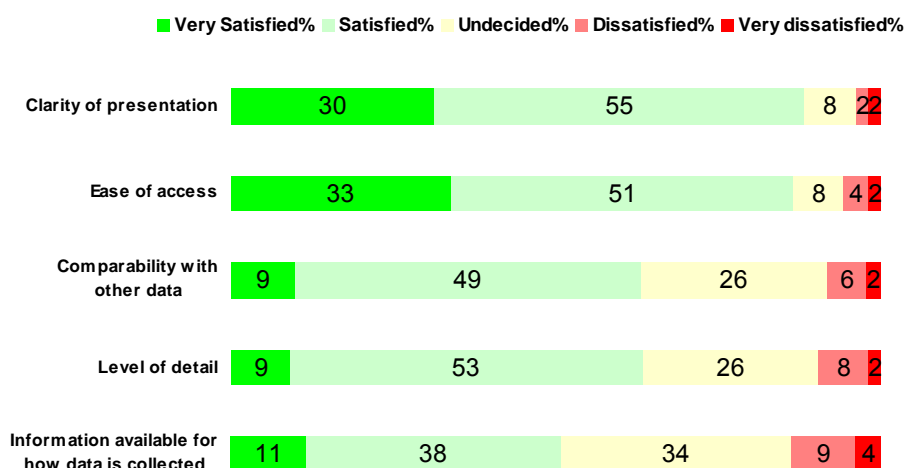
Table 3.4 I am satisfied with how up-to-date the statistics are.

	<b>Strongly Agree</b>	<b>Agree</b>	<b>Neither agree nor disagree</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>Roofing tiles/RMC</b>	11%	57%	19%	8%	5%
<b>sand&amp; gravel</b>	3%	63%	19%	13%	3%
<b>slate</b>	10%	52%	24%	10%	3%
<b>cement &amp; clinker</b>	9%	63%	9%	11%	9%
<b>bricks</b>	13%	61%	13%	11%	3%
<b>concrete blocks</b>	11%	58%	16%	13%	3%
<b>price indices</b>	10%	46%	20%	17%	7%
<b>import/export</b>	12%	55%	18%	9%	6%

Figure 3.7 indicates how satisfied respondents were with other key quality attributes of the statistics as a whole.

More than 50% of respondents conveyed their satisfaction with four out of five quality attributes. Presentation and accessibility gained a high approving rate, both with over 80% of respondents feeling very satisfied or satisfied. However, there are areas we need to look into further. For instance, when it comes to information available for how data is collected, 49% of respondents were satisfied, the lowest among the aspects of quality, and about 13% expressed their dissatisfaction, while 34% remained undecided. The question on comparability with other data has the highest non-response rate of 9%.

Figure 3.7 Respondents satisfaction on the following aspects of the statistics



We also examined the comments provided by respondents to identify the underpinning causes for dissatisfaction with the quality of the data. Three respondents expressed their respective concerns on:

- Accessibility of the price indices data (although the respondent noticed that it had become more user friendly).
- Quality of roofing tiles data.
- The method used to compile the import/export brick data (which is outside the scope of the review).

### 3.3.5 Construction Products Association’s Response

The Construction Products Association (CPA) covers the construction products industry, and has 30,000 members, including major manufacturers in the industry and 44 affiliated associations. CPA provided a collective response to the survey agreed by its Market Information Committee. The response was submitted at the request of CPA members and some other non-member major associations who are working with CPA in the wider construction industry.

CPA uses all types of statistics monthly for the following purposes:

- Forecasting
- Assessing industry trends
- Market information

- Policy development

CPA reported its satisfaction with the various aspects of the quality of the statistics except for

- comparability with other data
- information available for how the data is collected

On the above two aspects of quality, CPA chose an ‘undecided’ response. As most BIS building material statistics published are unique, CPA hasn’t done a like-for-like comparison for the statistics. CPA provided an ‘undecided’ response on the question regarding information available for how the data is collected because there was no documentation available on data collection methods used to compile the statistics.

Discontinuation of the statistics would cause major disruptions to the work of CPA, and the trade association commented that BIS building material statistics were crucial to providing information to both members of the Association and the wider construction industry.

### **3.3.6 Respondent Requirements for the Statistics**

During the consultation, we also asked respondents to comment on any additional information they would like to see covered in the statistics and on the contents of the current statistics. In this section, we report identified respondent requirements for the statistics.

Respondent requirements can be grouped into the following two broad categories based on whether they require new data collections or not.

#### **Requirements for the Existing Statistics**

We identified the following additional information requirements which can be met by providing further details and additional analysis using the available data.

- Split imports/exports into EU/non-EU
- Include more historical data/time series
- Provide volumes for imports/exports

If CMI is to produce separate imports/exports data for EU/non-EU countries, it needs to take into account the expansion of the EU over the years, which would introduce discontinuities into time series data.

CMI is already scanning historical data on the building material statistics to produce PDF files for archiving, and these PDF files would be made available online in future. So far, CMI has scanned and archived the historical data back to the year 2000. As CMI has received a large number of user data requests for the time series data, some effort invested in scanning and publishing more time series could reduce the number of such requests in the long term, and in turn help save staff time spent on the requests, which could be redirected to other tasks.

Although it is possible for CMI to publish volume data on imports/exports alongside value data, some issues might arise with interpretation of units of some volume data, for example the volumes of air conditioning equipment are measured in tonnes.

Meeting the above needs entails additional efforts for CMI, as the format of the publication requires changes to accommodate more information and work is needed to compile additional data. Alternatively, the additional information could be published in extra Excel spreadsheets without changing the format of the main publication. CMI should look into publishing more information on the existing statistics as requested.

Conversely, some respondents suggested reducing the level of detail as follows:

- Publish only at national level
- Do not publish sub-types of material

These suggestions for reducing the details of the existing statistics chime with the user survey findings that the proportion of respondents using sub-types or regional statistics is no more than half of that using the statistics at national level for each type of material. For instance, 28% of respondents reported the use of the regional brick data as opposed to 56% using the brick data at national level.

Furthermore, if no effective measure can be found to address the disclosure issue affecting regional brick statistics as described in Section 2.6, publication of the statistics could be ceased at regional level. The impact on users should be ascertained before ceasing publication of any statistics.

## **Requirements for New Data**

Survey respondents individually suggested new data requirements as follows:

Publish additional data on the existing materials

- Include pricing information on materials
- Include prices for exports
- Monthly ready-mixed concrete data

On the second requirement, if CMI publishes both value and volume data on imports/exports, users could calculate prices for imports/exports.

More information on products

- More detailed breakdown of 'Plumbing, Heating & Electrical'.
- More detail on bricks (extruded, soft mud, pressed)
- Clay roofing tiles production, deliveries and stocks

The following additional materials (deliveries, stocks, imports & exports) were proposed. The number of respondents mentioning each material in our user survey is given in brackets.

- Crushed hard rock aggregates (1)
- Timber (2)
- Steel (2)
- Copper (2)
- Plasterboard (3)
- Flooring (1)
- Insulation materials (1)
- Glass (2)
- Light side products (1)

- Windows(1)

In its collective response to the survey, CPA suggested new data requirements including deliveries, stocks, imports and exports data for timber, steel, copper, windows, plasterboard and asphalt.

### 3.3.7 Discussion of New Data Requirements

When considering how to meet new data requirements identified from the user survey, questions naturally arise as to how to prioritise these requirements, as well as how to balance the needs of all users.

In addition, there are also statutory requirements for proposing new surveys as described below. Firstly, a proposal for new data requirements needs to comply with the new Code of Practice (CoP) for Official Statistics which specifies the following principle 6.4 relating to new data requirements: *Analyse the costs of proposed new data requirements (to data supplier) against the potential benefits.*

Secondly, in accordance with the Prime Minister's instructions on the control of government statistical surveys<sup>1</sup>, when proposing new surveys, CMI need to:

- assess compliance costs and benefits of new surveys
- thoroughly examine alternative data sources

Both the Code of Practice and the survey control procedure point to the need for understanding the costs and benefits associated with new data requirements, which could be achieved through cost-benefit analysis (CBA). There are a number of CBA approaches and models available in the literature. The ONS quality centre recently proposed a CBA<sup>2</sup> model tailored to meet the requirements set out by the CoP for Official Statistics. Apart from meeting statutory requirements, the ONS CBA model also provides a framework for estimating survey organisation costs, which would help the organisation assess if there are sufficient resources to implement a new data requirement.

In order to make informed decisions on new data requirements, CMI needs to conduct cost-benefit analyses to assess the feasibility of implementation and to meet statutory requirements set out by the Code of Practice and the survey control procedure. Resources for collecting and publishing new statistics might be partly covered by removing the existing data which is of little interest to users.

## 3.4 Examples of the uses of the statistics

The user consultation has enabled us to obtain general user profiles, an overview of various uses made of the statistics, users' perceptions on the quality of the statistics and their requirements for the data.

---

<sup>1</sup> <http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/survey-control/index.html>

<sup>2</sup> Orchard CB et al (2009). Cost-Benefit Analysis of proposed New Data Requirements. 16<sup>th</sup> Meeting of the GSS Methodology Advisory Committee

In order to understand the usages made of our statistics in depth, we also approached industry and government user representatives to acquire specific examples of how they have made the use of the statistics as listed below.

BIS Construction Sector Unit tends to use construction products statistics at an aggregated level. Mostly, annual data are sufficient for CSU to monitor the broad industry trend, providing an indicator of the conditions being faced by products manufacturing companies. However, they also find that quarterly and monthly data presented as graphs acts as a good timely representation of the industry trend.

BIS Economic Development Directorate (EDD) has regularly used the statistics for various purposes including Grant for Business Investment (GBI) cases, Parliamentary questions, sector profiles and general background information.

The Construction Products Association (CPA) stated that CPA has utilised the statistics for a variety of purposes as follows:

Forecasting - As a good indicator for the value of output in private and public housing markets, the BIS brick data has been utilised to forecast for the housing sector and movements between house and flat construction at national level.

Industry trend – The statistics on individual materials are the only key source for assessing the economic environment for individual product markets, for instance, monitoring the impact of the recession on brick and concrete product markets. Moreover, the price data of individual products are useful for CPA members and non-members to monitor and assess the variations in prices of particular products and the impact of recession and inflation on the prices.

Market information – The statistics have been a key data source to the CPA Construction Information Database, which provides market information to its members constituting thousands of companies within construction and product manufacturing. In addition, the BIS price indices on certain construction sectors are used to deflate the market data in the sectors.

Policy development – When developing policies for the organisation, CPA used the statistics to highlight the effect of recession on construction products manufacturers as an industry to both media and Government.

## 4 Compliance Cost Survey

In order to measure compliance costs and to identify areas for reducing respondent burdens, we carried out a compliance cost survey in accordance with the Prime Minister's instructions on the control of government statistical surveys<sup>1</sup>. A compliance cost questionnaire was distributed to all data suppliers contributing to the 7 surveys used to produce the data for compiling the statistics. All these surveys are conducted by ONS on behalf of BIS. The supplier questionnaire contained questions on:

- Time to complete a survey form for supplying the data
- Who completed the form
- Any problems encountered when completing a questionnaire
- How much of the information is held for the data supplier's business purposes

We received 60 responses out of a total of 458 compliance cost survey forms. Response rates for each individual survey are given in Table 4.1 below.

### 4.1.1 Compliance Costs

Compliance costs were calculated using the method recommended by the BIS Survey Control team as follows:

*Number of Questionnaires in Survey Sample\* Response rate\* Mean time taken to respond to survey\*Average wage rate of respondent (uplifted for non-response)*

The total compliance cost for seven building materials surveys combined was £138,627 (See Table 4.1 for individual survey costs). This is close to the estimated compliance cost for 2008/2009 which was £142,692.

Table 4.1: Compliance Costs by types of survey

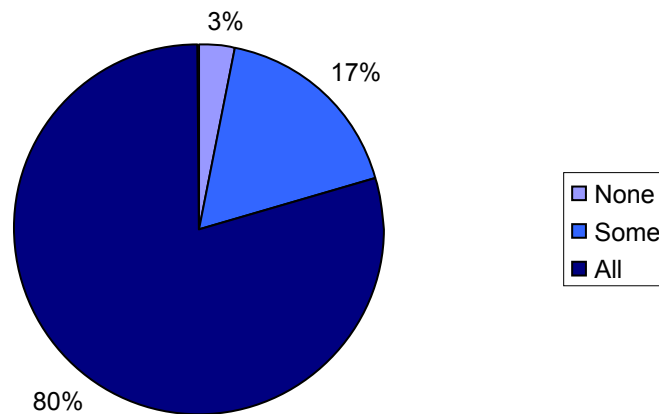
Survey	Estimated Compliance Cost	Response Rate to the compliance cost survey
Concrete Roofing Tiles	£1,202	83%
Monthly bricks	£37,453	8%
Monthly blocks	£14,481	21%
Quarterly blocks	£12,821	26%
Sand and gravel Land Won	£48,315	8%
Sand and gravel Marine Dredged	£19,430	6%
Slate	£4,924	46%
Total	£138,627	

<sup>1</sup> <http://www.ons.gov.uk/about-statistics/methodology-and-quality/quality/survey-control/index.html>

### 4.1.2 Main Findings

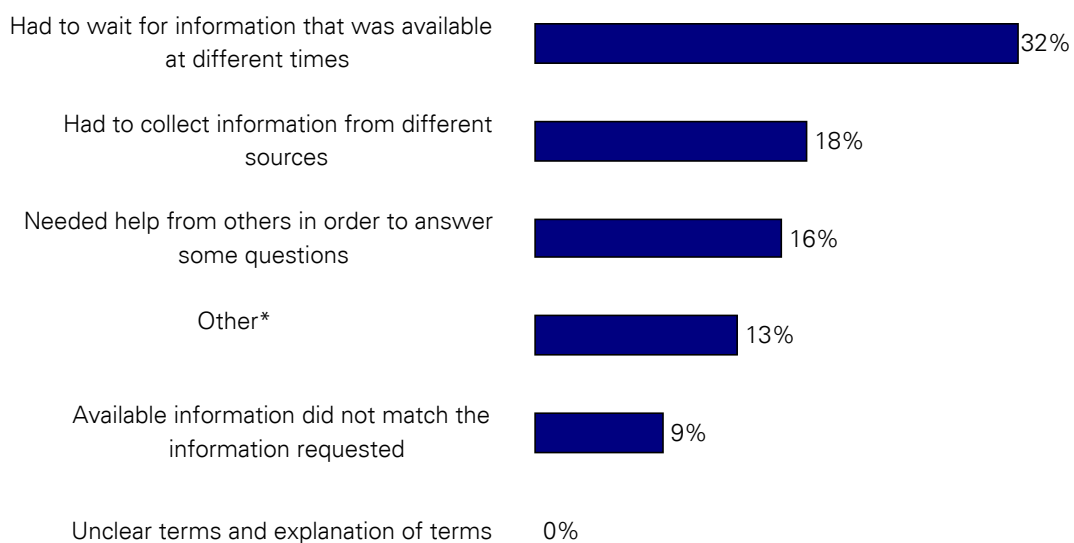
As illustrated in Figure 4.1, the majority of respondents (80%) held the information required in our surveys for their own business purposes.

Figure 4.1: The amount of information held by businesses for their own purposes



As depicted in Figure 4.2 the most common problem reported by suppliers when completing the survey forms is ‘waiting for information that was available at different times’ (32%), followed by ‘collecting information from different sources’ (18%) and ‘needing help from others in order to answer some questions’ (16%). None of the respondents reported unclear terms or explanations to be a problem.

Figure 4.2: Problems experienced by suppliers when completing survey forms



\*Other includes

- Names of some sites do not match the names internally

- *Allocation of time to complete the report during a busy time of the business*
- *Had to write invoices, aggregate levy & V.A.T manually*
- *Information not available by required date.*

Having analysed the respondent burden survey data, we identified the following potential measures which could help reduce respondent burdens:

- Encourage wider use of systems of electronic data submission
- Improve the Secure Electronic File Transfer (SEFT) system so that respondents could receive an updated submission template via email
- Include pre-filled fields such as contact details in the questionnaire

We reported back to ONS on respondents' concerns and problems encountered when completing a survey form, and also discussed with ONS about the feasibility of the potential measures to reduce respondent burdens. We were informed that the SEFT system had been improved so that data suppliers were able to retrieve an updated data submission template in Excel via email. ONS is also looking into a possibility of setting up an on-line data submission system which would be available to more data suppliers with pre-filled fields.

## **5 Compliance with the Code**

### **5.1 UKSA Assessment and Designation**

As legacy National Statistics, building material statistics are subject to assessment by the UK Statistical Authority (UKSA) to determine whether it is appropriate for them to retain their designation as National Statistics. To retain designation as National Statistics, the statistics have to demonstrate evidence of their adherence to the Code of Practice for Official Statistics<sup>1</sup> introduced in January 2009. The Code contains 7 principles and 3 protocols with a total of 74 practices. Designation as National Statistics means that statistics meet high standards with respect to production, dissemination and management of the statistics, and satisfy identified user needs.

The UKSA assessment of BIS building material statistics is scheduled for the second quarter of 2011, so one of the review's objectives is to prepare for the UKSA assessment. Preparing the written evidence for the UKSA assessment was part of this process, and helped determine the compliance of the statistics with the Code of Practice, identifying areas for improvement.

The remainder of this chapter summarises main strengths and weaknesses of the statistics in terms of compliance with the Code, and outlines the practices in the Code that are already being followed by the statistics, and those that will need to be implemented in future development.

### **5.2 Summary of Strengths and Weaknesses**

The Code of Practice is wide ranging and the degree of compliance with the Code varies across principles and protocols. Principle 3 (integrity) and Principle 6 (proportionate burden) are areas where building material statistics are strong in terms of compliance with the Code, as there were no issues identified in relation to these principles during the review. However, compliance with the Code in relation to Principle 4 (Sound methods and assured quality) requires some development work to implement the practices set out in the Principle.

The following sections outline the degree of compliance and further steps to be taken for each of the Code's Principles.

---

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

## 5.3 Detailed Assessment of Compliance with the Code

### 5.3.1 Principle 1 and Protocol 1: Meeting User Needs and User Engagement

CMI organises biannual meetings of the Consultative Committee on Construction Industry Statistics (CCCIS)<sup>1</sup> which aims to communicate and engage with users of UK construction statistics. CCCIS has a wide membership representing Government, the construction industry and independent analysts. At each CCCIS meeting, members are invited to make suggestions, and to discuss issues relating to the collection and dissemination of UK construction statistics, including the building material statistics.

Moreover, in order to effectively engage with users of the building material statistics, we held a public consultation as part of the review, through an on-line survey complemented with a postal survey. The consultation followed Cabinet Office Guidance on *How to consult your users*<sup>2</sup> and engaged with users from a variety of organisations, involving both government and industry users.

The review also identified main user needs and uses made of existing statistics, and captured users' views on the quality of the statistics. These findings alongside the detailed procedure of consultation were described in Chapter 4.

Furthermore, the building material statistics were part of the review on construction statistics held in 2001, which also contains user needs and requirements for the statistics. Following one of the key user requirements for the statistics identified in the 2001 review, building material statistics were made freely available online at the BIS website from 2008.

This review proposes the following action plan to ensure compliance with the Code of Practice in relation to meeting user needs and user engagement (Principle 1 & Protocol 1):

1. Publish information on data quality including any statistical biases. (Principle 1.5 and Protocol 1.4)
2. Publish a commentary and metadata, taking into account users' views. (Protocol 1.3)
3. Consult users before making changes that affect statistics (for example, to coverage, definitions, or methods) or publications (Protocol 1.7)

### 5.3.2 Principles 2 and 3: Impartiality and Objectivity, and Integrity

BIS has robust procedures in place to protect its statistics from pressures which might influence the production or presentation of the statistics. All staff have access to good practice guidance for the use of statistics, and are aware that they can contact the Head of Profession if they need advice.

In addition, CMI works closely with policy colleagues and press officers to ensure that statistics and statistical expertise are valued, that misuse of statistics is avoided, and that the most appropriate responses to enquiries are provided.

---

<sup>1</sup> <http://www.bis.gov.uk/Policies/business-sectors/construction/construction-statistics/cccis>

<sup>2</sup> <http://archive.cabinetoffice.gov.uk/servicefirst/1998/guidance/users/index.htm>

The building material statistics are largely compliant with the Code of Practice relating to Principles 2 and 3, although CMI should publish a revisions policy and provide a statement explaining the nature and extent of revisions when revised statistics are released (Principle 2.6).

### **5.3.3 Principle 4: Sound Methods and Assured Quality**

Assured quality embedded in both statistical outputs and in the underlying production process is fundamental to maintaining trust in statistics and to providing reliable statistical services. To meet the high quality standards set for National statistics, the Code requires statistics producers not only to produce statistics with a level of quality that meets user needs, but also to be transparent about the methodological process by providing information on adopted methodologies and on any biases or other quality issues in the exiting statistics.

One of the primary objectives of the review is to collect information on the methodologies used to produce the statistics, and to identify scope for improving the quality of the statistics. To this end, CMI, alongside ONS, examined the data compilation methodologies, pointed out biases and caveats caused by the current methods, and discussed potential measures to improve the quality of the statistics, as outlined in Chapter 2.

ONS has standardised quality assurance procedures including data validation. CMI also has measures in place to check the data sent by ONS for consistency across regions and different sub-types of material.

To ensure the compliance of the statistics with Principle 4 in relation to methods and quality, CMI needs to take the following steps:

- Provide metadata linked to the publication of building material statistics on (Principle 4.2):
  - types of known bias/limitation that exist in the statistics with their likelihood and an indication of their magnitude, if available
  - key quality measures such as response rates
- Set out a quality improvement plan to address quality issues identified during this review and to improve the statistical methodologies. ( Principle 4.5)

### **5.3.4 Principle 5: Confidentiality**

BIS has effective procedures in place to maintain the confidentiality of the statistical data. The detailed arrangement and procedures can be found from the BIS website:

<http://stats.bis.gov.uk/sd/Compliance1.htm>

When producing the statistics, CMI staff need to handle confidential data. Although a service level agreement between CMI and ONS contains confidentiality and data security terms, and was signed by respective contract managers, there should be an arrangement in place for CMI staff to sign a declaration covering their obligations under the Principle 5.2.

### **5.3.5 Principle 6: Proportionate Burden**

The process of producing the statistics is in line with the practices set out in Principle 6 relating to proportionate burden.

The Survey Control team in BIS estimate and report compliance costs annually<sup>1</sup>. Furthermore, as part of the review we carried out a respondent burden survey with a view to updating an estimate of compliance costs and to identifying potential measures that will reduce respondent burdens. The latest estimated compliance cost is £138,627.

CMI has liaised with ONS, the data supplier representative, to take steps to reduce respondent burdens, and main findings from the compliance cost survey were fed back to ONS. For more information on the respondent burden survey and main findings, please refer to Chapter 4 in this report.

Data used for producing the statistics is mainly collected via voluntary surveys, except for producer price indices, brick and quarterly block data. The statutory status for the collection of brick and quarterly block data is deemed necessary due to the level of persistent non-response.

### **5.3.6 Principle 7: Resources**

Both EPA and CMI have business plans which set out:

- the budget, number of staff, and any budget set aside for user consultation;
- information about how we monitor expenditure against work programmes and demonstrate effective stewardship of resources allocated to statistical work; and
- records showing the relationship between the statistical planning process, the work programme, the allocation of resources, and the outcomes (Principle 7.1, Principle 7.3, Principle 7.4).

### **5.3.7 Principle 8: Frankness and Accessibility**

The BIS building material statistics are publicised through the main BIS websites, BIS statistics websites and the ONS publication hub. The main statistical publication website has links to other construction statistics web pages, and is linked to from BIS construction policy websites.

CMI publishes building material statistics in a pdf format on a monthly basis. Production of pdf files follows the guidance set out in BIS web accessibility guidelines which ensure the statistics are accessible to a range of different users, including disabled users. Moreover, all the statistical tables are made available in Excel spreadsheets, which enable analysis and reuse. All the statistical publications are deposited at The National Archive.

CMI also closely works with various users of statistics, ranging from policy colleagues to industry users, and responds promptly to queries in relation to the building material statistics. This is in line with the one of the key CMI targets to respond to all queries within 2 weeks.

---

<sup>1</sup> <http://stats.bis.gov.uk/surveyactivity/>

In accordance with Principle 8.7, BIS has a comprehensive set of records management policies which are available to all staff. They cover security of information, and maintaining a public record. In addition, ONS, the data supplier representative for the review, has a records management policy, which ensures all ONS staff and other users of ONS records understand the policy and manage records effectively, efficiently and economically.

CMI needs to take the following steps to ensure compliance with Principle 8:

- Provide documentation on the quality and reliability of statistics in relation to a range of potential uses. (Principle 8.1)
- Publish an accompanying commentary/background note which includes: (Principle 8.2)
  - a summary of the main messages;
  - policy or operational context for the statistics, if any;
  - explanations of the ways that the statistics can be used and;
  - main features and any known limitations.

### **5.3.8 Protocol 2: Release Practices**

The building material statistics are freely available from the BIS statistics website and publicised through the ONS publication Hub (<http://www.statistics.gov.uk/hub/index.html>). A time table of statistical releases for twelve months ahead is also available on the ONS publication Hub.

CMI releases building material statistics in line with all applicable practices set out in the Protocol 2 except that there is no name and contact details of the responsible statistician in the statistical publications, though a general enquiry contact is included in the publications. Therefore, CMI needs to include the name of the responsible statistician in the publication in future. (Protocol 2.6)

### **5.3.9 Protocol 3: Administrative Sources for Statistical Purposes**

In accordance with Protocol 3.5, CMI needs to produce a statement of administrative sources (SAS) outlining HMRC administrative data sources used to produce the import/export output of the statistics. This SAS would be added to the BIS organisational statement of administrative sources available online at <http://stats.bis.gov.uk/sd/Compliance4.htm>.

## 6 Conclusions and Recommendations

In this chapter, we draw together conclusions from the findings presented in the previous chapters, and propose recommendations for ways forward.

### 6.1 Options for Publication of the Building Material Statistics

During the review, we identified the following options concerning future directions for the statistics:

- Stop the publication
- Maintain the status quo of the publication
- Continue the publication with improvements and changes

The review has shown that building materials statistics are useful and valuable to a range of industry and government users, and ceasing the publication would cause significant disruptions to their work, as indicated by responses to the user consultation described in Chapter 3. On the other hand, in order to meet user needs and high standards set out by the Code of Practice for Official Statistics, the publication needs to be improved in a number of areas, including survey methodologies and documentation.

The first option is ruled out at present, provided of course that sufficient government resource remains available. The second option would not allow for compliance with the Code. The intention is therefore to proceed in line with the third option. The improvements and changes recommended in this report will be implemented over time in such a way that the costs can be absorbed within existing resources. Since the building material statistics are of primary interest to individual trade associations and supply firms, CMI should also explore the possibility of joint working with others to produce and improve the statistics.

### 6.2 Compilation of Building Material Statistics

The building material statistics are compiled from diverse data sources. Their production entails collaborative efforts from the data supplier representative (ONS), the industry partner (BCIS) and a trade association (MPA), giving rise to challenges for managing a diverse range of statistical outputs.

Having examined methodologies used to compile the statistics, the review identified several issues affecting the quality of the statistics as follows:

- Coverage and accuracy of the data inquiry panels
- A low respondent rate from the newly identified sand and gravel sites
- Persistent non-responses for the brick and block data inquiries
- Bias introduced by the grossing method for the sand and gravel data
- Disclosure concerns for regional brick statistics

The main purposes for using the statistics are monitoring market information and industry trends. Therefore, the accuracy and coverage of the data is of importance to users. However, the above issues raise concerns about the quality of the affected statistical outputs. Improvement is needed to

address these quality issues, which requires collaboration from the relevant trade associations and the data suppliers.

## **Recommendations**

- 1. The coverage and accuracy of the sample panels used in the data inquiries should be regularly monitored and checked against other sampling frames and with relevant trade associations to ensure the representativeness of the data. (Section 2.11.1)**
- 2. CMI should consider options for improving response rates, such as making voluntary inquiries with persistent low response rates compulsory, and working with ONS to increase use of Secure Electronic File Transfer (SEFT). (Section 2.11.2)**
- 3. Methodologies used to process survey results should be improved. (Section 2.11.3 and 2.11.4)**
- 4. Consider sharing the responsibility of collecting and publishing the statistics with others. (Section 2.11.4 and 6.1)**
- 5. Users should be consulted about ceasing the regional brick data and the slate data affected by quality issues. (Section 2.11.4)**

## **6.3 User Survey**

Through the user consultation, we ascertained general user profiles; an overview of diverse uses made of the statistics; public perceptions on the quality of the statistics and their requirements for the data. We further illustrated how the statistics are used by government and industry user representatives for specific purposes.

Respondents from the industry have a stronger need for continuing the statistics than those from the government. Respondent perceptions of the quality of the statistics are mainly positive, but work is needed on certain aspects such as making documentation and metadata available. User perceptions of quality might of course change once more information on the quality and methodology is published.

Some users' requirements could be met using the existing data. CMI has already taken steps to make more historical data available to users, whereas when considering diverse new data requirements, CMI needs careful prioritisation and evaluation through cost-benefit analysis, which is also subject to finance available.

Although the consultation involved a wide range of external users, it is not clear how the statistics benefit policy makers from the Government due to a small number of government users' responses to the consultation. Furthermore, potential users' needs have not been adequately explored in this review. In particular, the non-probability sampling design adopted in the user survey further limited the extent to which survey results can be generalised. Therefore, we were not able to establish a clear impact on government users and potential users of any changes that may be made to the statistics.

## **Recommendations**

- 6. Wide and regular user consultation should be maintained continually through various ways such as meetings of Consultative Committee on Construction Industry Statistics and periodic on-line consultations.**
- 7. CMI should look into publishing more data alongside the existing statistics as requested. (Section 3.3.6)**
- 8. CMI should investigate how to modify the coverage of the statistics by replacing obsolete materials with new ones, maintaining their relevance to users and affordability. (Section 3.3.7)**

## **6.4 Compliance Cost Survey**

The respondent burden survey conducted during the review provided the latest estimate of the annual compliance costs at £138,627 for seven regular inquiries used for producing the statistical outputs. We further identified areas to reduce respondent burdens, and close collaboration with ONS is needed to implement these measures. Recommendation 2 on the wider use of the electronic data submission system also would help reduce respondent burdens.

## **6.5 Compliance with the Code**

Through a detailed self-assessment of the statistics, we summarised main strengths and weaknesses of the statistics in terms of compliance with the Code. We further identified and outlined steps that CMI should take to ensure the statistics comply with the Code as outlined in Chapter 5.

**To ensure Code compliance, CMI should:**

- 9. Provide statistical quality information which could be documented in a form of metadata or quality reports. (Sections 5.3.1 and 5.3.3)**
- 10. Publish supporting commentary. (Sections 5.3.1 and 5.3.7)**
- 11. Publish a revisions policy, and explain the nature and extent of revisions when revised statistics are released. (Section 5.3.2)**
- 12. Set out a quality improvement plan to address quality issues identified during this review. (Section 2.11.1, 2.11.4, 2.11.3 and 5.3.3)**
- 13. Ensure CMI staff who deal with confidential data sign declarations covering their obligations under the Code. (Section 5.3.4)**
- 14. Include the name of the responsible statistician in the publication. (Section 5.3.8)**
- 15. Publish a statement of administrative sources used to produce the import/export outputs. (Section 5.3.9)**

## Appendices

### Appendix 1 Other Related Building Material Data Sources

Information available	Coverage	Frequency of Release	Most recent year to which contents relate:	Sources	Organisation
Sales and Trade: Plaster construction products	UK	Annual	2007	PRODCOM inquiry	ONS
Link to the data source: <a href="http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=7058&amp;Pos=2&amp;ColRank=1&amp;Rank=224">http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=7058&amp;Pos=2&amp;ColRank=1&amp;Rank=224</a>					
Sales and trade: bricks, tiles, concrete and plaster and glass used for building or construction purposes	UK	Annual	2009	PRODCOM inquiry	ONS
Link to the data source: <a href="http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=15270&amp;Pos=4&amp;ColRank=2&amp;Rank=208">http://www.statistics.gov.uk/StatBase/Product.asp?vlnk=15270&amp;Pos=4&amp;ColRank=2&amp;Rank=208</a>					
Sale, production and trade data on clinker and cement	GB	Quarterly/Monthly	2010	MPA members	MPA
Link to the data source: <a href="http://www.cementindustry.co.uk/the_industry/fact_file/industry_statistics.aspx">http://www.cementindustry.co.uk/the_industry/fact_file/industry_statistics.aspx</a>					
Sales on Sand and Gravel for construction	GB	Annual	2007	Annual Mineral Raised Inquiry	ONS
Link to the data source: <a href="http://www.statistics.gov.uk/statbase/Product.asp?vlnk=606">http://www.statistics.gov.uk/statbase/Product.asp?vlnk=606</a>					
Production of building materials other than cement; Production, import, export, and apparent consumption of cement	Europe and North America	Biennial Discontinued	2004	Various	UN Economic Commission for Europe
Link to the data source: <a href="http://www.unece.org/hlm/prgm/hsstat/Bulletin_06.htm">http://www.unece.org/hlm/prgm/hsstat/Bulletin_06.htm</a>					

## Appendix 2 User Questionnaire

**BIS 'Monthly Statistics of Building Materials and Components' Survey**

*This questionnaire is about our publication, 'Monthly Statistics of Building Materials and Components'. Please take some time to give us your comments, which will be used to improve the quality of the data we provide*

**Q1 Below is a list of building material statistics which our publication covers, please tick as many boxes as apply.**

*For the statistics that you use please specify whether you use them at a national level or regional level, and whether you use breakdown into detailed type of material (e.g. for bricks: commons, facings and engineerings).*

	National	Regional	Sub-type of material
Roofing Tiles & Ready Mixed Concrete	<input type="checkbox"/>		
Sand and Gravel	<input type="checkbox"/>	<input type="checkbox"/>	
Slate	<input type="checkbox"/>		
Cement and Clinker	<input type="checkbox"/>		
Bricks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Indices	<input type="checkbox"/>		<input type="checkbox"/>
Import/Export	<input type="checkbox"/>		<input type="checkbox"/>
	Production D	eliveries	Stocks
I tend to rely most upon statistics on	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q2 To what extent would your work/business be disrupted if the statistics that you use were discontinued?**

*Major disruption to work (e.g. no alternative sources available)  
Significant disruption to work (e.g. other sources are available but are not as good)  
Some disruption to work (e.g. adequate alternatives can be found with some effort)  
No effect*

	Major disruption	Significant disruption	Some disruption N	o effect
Roofing Tiles, Fibre Cement, Ready Mixed Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sand and Gravel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cement and Clinker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bricks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Indices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Import/Export	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*For questions 3 - 5, please read the statement in each question, and rate your response from 'Strongly Agree' to 'Strongly Disagree', or 'Not Applicable' (N/A) if you never use the statistic.*

For questions 3 - 5, please read the statement in each question, and rate your response from 'Strongly Agree' to 'Strongly Disagree', or 'Not Applicable' (N/A) if you never use the statistic.

**Q3 I am satisfied with the relevance of the statistics to my work.**

Relevance may not be the same as Importance. For example, you may have to use a particular dataset because there is nothing better available. In this case you might rate the dataset lower on relevance (Q3) than on importance (Q2).

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	N/A
Roofing Tiles, Fibre Cement, Ready Mixed Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sand and Gravel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cement and Clinker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bricks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Indices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Import/Export	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q4 I am satisfied with the accuracy of the statistics.**

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	N/A
Roofing Tiles, Fibre Cement, Ready Mixed Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sand and Gravel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cement and Clinker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bricks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Indices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Import/Export	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q5 I am satisfied with how up-to-date the statistics are.**

	Strongly Agree	Agree	Neither agree nor disagree	Disagree	Strongly Disagree	N/A
Roofing Tiles, Fibre Cement, Ready Mixed Concrete	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Sand and Gravel	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Slate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Cement and Clinker	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Bricks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Concrete Blocks	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Price Indices	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Import/Export	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q6 If there are any additional statistics that you would like to see included in 'Monthly Statistics of Building Materials and Components', please provide details in the space below. Please also indicate what use you would make of these statistics, e.g. forecasting, contract pricing etc**

**Q7 Thinking about 'Monthly Statistics of Building Materials and Components' please rate how satisfied you are with the following aspects of quality from 'Very satisfied' to 'Very dissatisfied'.**

	Very satisfied	Satisfied	Undecided	Dissatisfied	Very dissatisfied
Ease of access	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Clarity of presentation	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Information available on how the data is collected	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
The level of detail	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comparability with other data	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Q8 Please select the type of organisation you work for or study at from the options below.**

- Construction Firm
- Government
- Other public sector
- Trade Association
- Supply Firm
- Academic Institution
- Consultancy
- Private Individual
- Other

**If you have answered 'other' to question 8 above, please specify in the space below.**

**Q9 What is your main use of building materials statistics? Please tick as many boxes as apply.**

- Academic Research
- Contract pricing
- Forecasting
- Industry trend
- Market information
- Policy development
- Other

**If you have answered 'other' to question 9 above, please specify in the space below.**

**Q10 How often do you use 'Monthly Statistics of Building Materials and Components'?**

*Please select from one of the options below.*

Daily

Monthly

Quarterly

Yearly

Less than once a year

**Q11 If you have any further comments based on your answers above, or would like to draw our attention to other issues with the data, please use the space below.**

***Thank you for taking part in our survey. Please return the completed questionnaire in the pre-paid envelope.***

***If you would like to contact us regarding the survey, please email us:***

[yi.zhang@bis.qsi.gov.uk](mailto:yi.zhang@bis.qsi.gov.uk)

[stephanie.walker@bis.qsi.gov.uk](mailto:stephanie.walker@bis.qsi.gov.uk)

### Appendix 3 Members of the Project Board

Tim Andrews	BIS	Project Sponsor
Keith Folwell	BIS	Project Board Chair
Frances Pottier	BIS	Project Quality Advisor
Yi Zhang	BIS	Project Manager
Stephanie Walker	BIS	Project Coordinator
Richard Gill	BIS	Government Customer Representative
Kim Craig	ONS	Data Supplier Representative
Beverley Davies	ONS	Data Supplier Representative
Noble Francis	CPA	Industry Customer Representative