



# Monthly Statistics of Building Materials and Components

# Commentary March 2019

Coverage: UK and Great Britain Geographical area: Country, region and county Date of publication: 3<sup>rd</sup> April 2019

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# Headline results

**Construction material prices rose on a yearly basis.** The 'All Work' construction material price index **increased** by **4.3%** in February 2019 compared to a year previously. This follows a **3.8% increase** in January 2019, again on the same basis.

# Introduction

This commentary accompanies the latest Monthly Statistics of Building Materials and Components bulletin, published on the BEIS building materials <u>web page</u> on 3<sup>rd</sup> April 2019. It provides an overview of recent trends in the data presented in the bulletin.

The bulletin presents the latest detailed information on selected building materials and components. It covers the following building materials statistics (in parentheses, the data collection frequency and the geographical area covered):

- Construction material price indices (monthly, UK)
- Sand and gravel sales (quarterly, GB\*)
- Slate production, deliveries and stocks (quarterly, GB)
- Cement and clinker production, deliveries and stocks (annual, GB)
- Bricks production, deliveries and stocks (monthly, GB\*)
- Concrete building blocks production, deliveries and stocks (monthly, GB\*)
- Concrete roofing tiles production, deliveries and stocks (quarterly, GB)
- Ready-mixed concrete deliveries (quarterly, UK)
- Values of overseas imports and exports trades for selected materials and components for use in construction (quarterly, UK)
- Value of EU and Non-EU Trade for selected materials and components for use in construction (annual, UK)

#### Note: \* Regional figures available

These statistics support analysis of the construction materials market and business planning. They are regularly reported in the construction press and are used for a variety of purposes, including policy development and evaluation concerning the construction products industry, as well as monitoring market trends. Further detail is available in this document under <u>Uses of the data</u>.

#### Seasonal Adjustment Review

Seasonally adjusted series for deliveries of bricks, concrete blocks, ready-mixed concrete and sales of sand & gravel are published in this bulletin. The purpose of correcting the reported series is to allow for seasonal factors such as winter weather (including the reduction in hours of daylight, and frost and rain) and other seasonal events such as Christmas and Easter. Thus, seasonally adjusted figures show the underlying trend more clearly. Further information can be found in Section 3 of the Background Notes on page 14 of this document.

# **Summary of Results**

### **Material Price Indices**

Chart 1: Construction Material Price Indices, UK\* Index, 2010 = 100

130 120 110 New Housing 100 Other New 90 Work 80 Repair & Maintenance 70 -All Work 60 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019 Source: Table 1, Monthly Statistics of Building Materials and Components

### Year-on-year change

Change from February 2018 to February 2019		
New Housing	2.9%	
Other New Work	4.7%	
Repair & Maintenance	4.0%	
All Work	4.3%	

#### Month-on-month change

Change from January 2019 to February 2019		
New Housing 0.6%		
Other New Work	1.7%	
Repair & Maintenance	0.6%	
All Work	1.3%	

Looking at the longer-term change, the material price index of 'All Work' increased by 4.3% in February 2019 compared to the same month in the previous year.

# Table 1: Construction materials experiencingthe greatest price increases and decreases inthe 12 months to February 2019, UK

Construction Materials	% change on a year earlier	
Greatest price increases	0.7	
Imported sawn or planed wood Imported plywood	8.7 7.8	
Insulating materials (thermal or ac		
Greatest price decreases		
Concrete reinforcing bars	-1.0	
Ceramic tiles	-0.8	
Source: Table 2 Monthly Statistics of Bu	iildina	

Source: Table 2, Monthly Statistics of Building Materials and Components The aggregated construction material price index hides larger price movements for some specific products and materials. The three largest increases and decreases are presented here.

# **Cement & Clinker**

# 20% 2010 2011 2012 2013 2014 2015 2016 2017 10% 0% -Cement -10%

Chart 2: Production of Cement and Clinker, GB Percentage change over previous year (%)

Source: Table 8, Monthly Statistics of Building Materials and Components

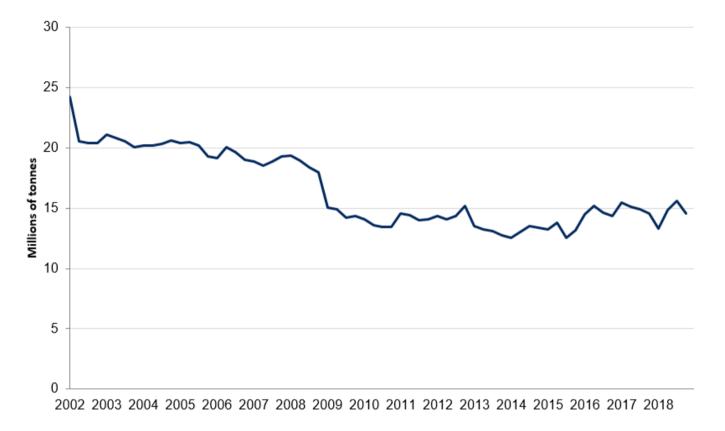
Cement production fell by 0.1% to 9.4 million tonnes in 2017, compared to the previous year. This fall in cement production follows growth of 1.5% to 9.4 million tonnes in 2016. Pre-recession production peaked in 2007 at 11.9 million tonnes.

Production of Clinker fell by 2.9% to 7.8 million tonnes in 2017, compared to the previous year. This fall in clinker production follows growth of 3.2% to 8.1 million tonnes in 2016. Prerecession production, in 2007, stood at 10.2 million tonnes.

# Sand & Gravel

### Chart 3: Seasonally Adjusted Sales of Sand & Gravel, GB

Weight of sand & gravel

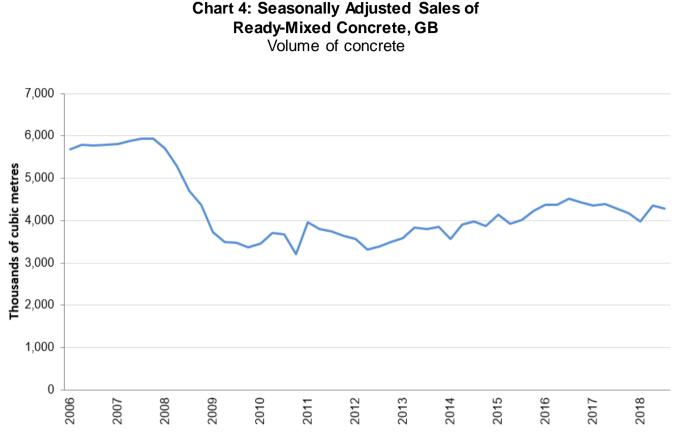


Source: Table 4, Monthly Statistics of Building Materials and Components

- Sales of sand & gravel **decreased** by **6.8%** in Quarter 4 2018 compared to Quarter 3 2018, according to the seasonally adjusted data.
- This followed an increase of 5.1% in Quarter 3 2018.
- Comparing Quarter 4 2018 to the same quarter in the previous year, sales have **decreased** by 3.5%.

Seasonally adjusted sales of sand & gravel have consistently remained below levels typically seen before the recession of 2008 - 2009.

# Concrete



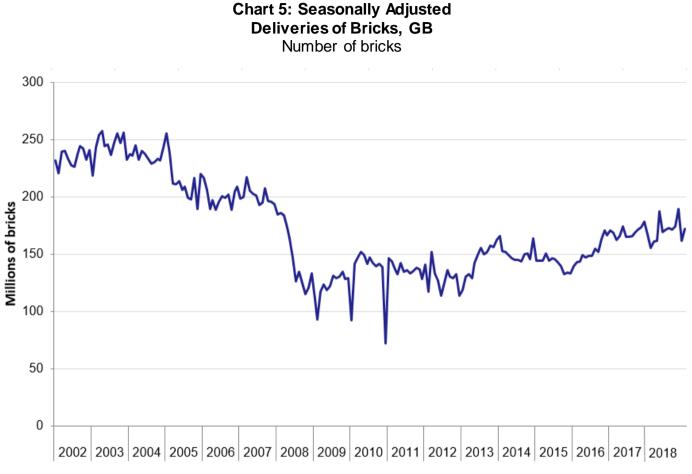
Source: Table 13, Monthly Statistics of Building Materials and Components.

- Data for ready-mixed concrete in Quarter 4 of 2018 was not available at the time of publication.
- Ready-mixed concrete sales **decreased** by **1.5%** in Quarter 3 2018 compared to Quarter 2 2018, according to the seasonally adjusted data.
- This followed a 9.3% increase in Quarter 2 2018.
- Sales in Quarter 3 2018 **increased** by **0.1%** compared to the same quarter in the previous year, following an **1.0% decrease** in Quarter 2 2018, on the same basis.

The seasonally adjusted data show that the lowest quarterly sales in the post-recession period occurred in Quarter 4 2010, which included extreme winter conditions.

Sales have steadily recovered since Quarter 2 2012, although they have failed to reach prerecession levels.

# **Bricks**

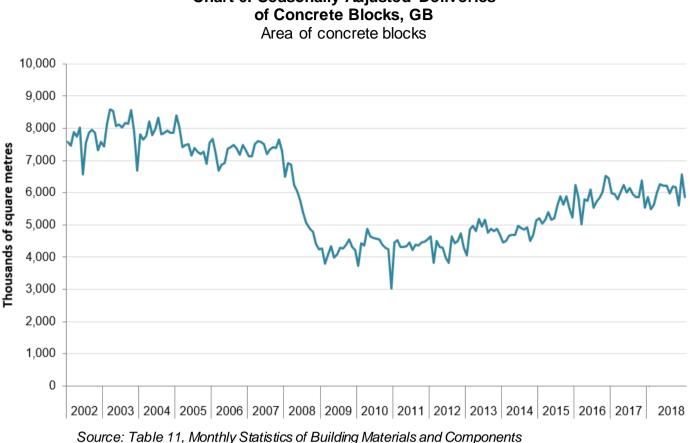


Source: Table 9, Monthly Statistics of Building Materials and Components

- There was a **2.8% increase** in brick deliveries in February 2019 compared to February 2018, according to the seasonally adjusted figures.
- This followed a 3.3% decrease in January 2019, on the same basis.
- The month-on-month change shows a 6.5% increase in February 2019.
- This followed a 14.7% decrease in January 2019, on the same basis.

Deliveries of bricks declined during the recession of 2008 - 2009 and have recovered slowly since 2013.

### **Blocks**

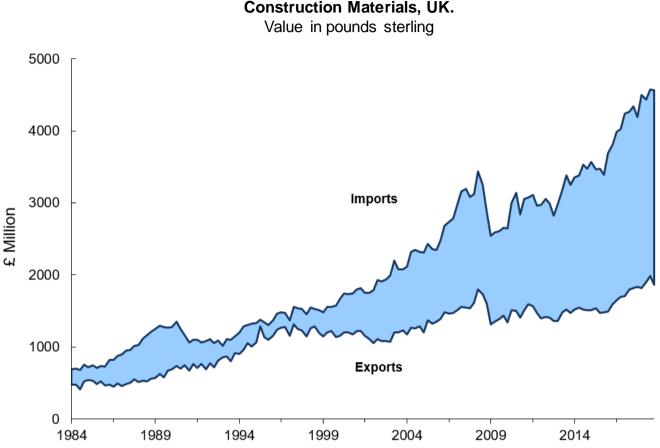


**Chart 6: Seasonally Adjusted Deliveries** 

- There was an 0.1% decrease in concrete block deliveries in February 2019 compared to • February 2018, according to the seasonally adjusted figures.
- This followed a 16.2% increase in January 2019, on the same basis. •
- The month-on-month change shows a 10.7% decrease in February 2019.
- This followed a 17.2% increase in January 2019, on the same basis. •

Concrete block deliveries declined during the recession of 2008 - 2009, though the general trend has been one of growth since 2013.

### Imports and Exports of Construction Materials



### Chart 7: Exports and Imports of **Construction Materials, UK.**

Source: Table 14, Monthly Statistics of Building Materials and Components

Imports of construction materials decreased by £8 million in the fourth guarter of 2018 (to £4,568 million) compared to the previous guarter, a decrease of 0.17%.

Exports of construction materials decreased by £121 million in the fourth guarter of 2018 (to £1,868 million), a 6.1% decrease.

As a result, the trade deficit widened by £113 million to £2,700 million in Quarter 4 2018, an increase of 4.4%.

Over the period from Quarter 1 1984 to Quarter 4 2018, construction materials imports have increased, on average (per quarter), by 4.0%. Over the same period, exports increased by an average of 2.1% per quarter.

The trade deficit was historically at its smallest throughout the 1990s, with a mean of £0.3 billion over this period. This trade deficit was 24% of the value of imports. As of Quarter 4 2018, the trade deficit is £2,550 million, 59% of the value of imports.

£ million Top-5 Exported Materials		Top-5 Imported Materials	
Electrical Wires	864	Electrical Wires	1,889
Paints & Varnishes	717	Lamps & Fittings	910
Plugs & Sockets	452	Sawn Wood>6mm thick	883
Air Conditioning Equipment	402	Structural Units (steel)	785
Lamps & Fittings	387	Central Heating Boilers	665

# Table 2: Top-5 Exported and Imported Construction Materials in 2018

Source: Table 14, Monthly Statistics of Building Materials and Components

# Table 3: UK Trade of Construction Materials with EU and Non-EU Countries, 2018

£million (% of total trade in italics)		
All Building Materials & Components	EU	Non-EU
Imports	11,250	6,828
	62%	38%
Exports	4,744	2,830
	63%	37%

Source: Table 15 Monthly Statistics of Building Materials and Components

# Table 4: Top 5 UK Export and Import Markets for Construction Materials in 2018

£ million		· · ·	
		Top-5	
Top-5 Export		Import	
Markets		Markets	
Republic of			
Ireland	1183	China	2831
Germany	800	Germany	2577
USA	642	Italy	1052
France	613	Spain	909
Netherlands	598	Netherlands	907

Source: HMRC Overseas Trade Statistics

The top five exported materials in 2018 accounted for 37% of total construction material exports.

The top five imported construction materials in 2018 accounted for 28% of total construction material imports.

Compared to prerecession levels in 2007, the share of total UK construction material exports going to the EU has declined from 70% to 63%.

The top five export markets comprised 51% of total construction materials exports in 2018. The Republic of Ireland remains the largest market, despite having shrunk from a prerecession peak of 27% of total exports in 2007, to 16% in 2018.

The top 5 import markets comprised 46% of total construction materials imports in 2018. 16% of all imports are from China.

The '<u>Rotterdam Effect</u>' (also known as the 'Antwerp Effect') may affect trade figures. This is explained in detail by <u>HM Revenue & Customs</u>.

# **Economic Background**

### **Construction Output**

The most recent <u>construction output</u> figures for January 2019 were published by the **Office for National Statistics** on 12<sup>th</sup> March 2019.

### Key points:

- Construction output decreased by 0.6% in the three-month on three-month all work series in January 2019; this decrease was driven by a fall of 2.3% in the all repair and maintenance series, which was offset by an increase of 0.3% in the all new work series.
- The fall in the three-month on three-month all repair and maintenance series was driven primarily by non-housing repair and maintenance, which fell by 3.2%, and private housing repair and maintenance, which fell by 2.3%.
- The all work series grew by 2.8% in January 2019 in the month-on-month series, reversing the 2.8% decline seen in December 2018.
- New orders fell by 1.9% in Quarter 4 (Oct to Dec) 2018 against the previous quarter, with all other work decreasing by 3.8%, more than offsetting the 2.3% growth in all new housing during the same period.

### Bank of England Summary of Business Conditions

The **Bank of England** published its latest update to the <u>Agents' Summary of Business Conditions</u> on 21<sup>st</sup> March 2019. It compares activity and prices over the past three months with a year ago.

#### Key points:

- Construction output growth eased as weakening housing market conditions and business investment weighed on activity.
- Growth in domestic manufacturing output slowed. This reflected a fall in output in the automotive sector and weaker construction output growth, which was only partially offset by growth generated by stockbuilding. The latest Agents' survey on preparations for EU withdrawal showed that around two fifths of all respondents have been building inventories.
- There was slower demand for commercial real estate from both domestic and overseas investors, but demand continued to outweigh supply.
- Housing market activity weakened for new-build homes as well as for second-hand properties, but the rental market remained buoyant.

### **Gross Domestic Product Estimate**

The **Office for National Statistics** published the <u>monthly estimate</u> of gross domestic product for January 2019 on 12<sup>th</sup> March 2019. Further details of the new GDP publishing model can be found in the bulletin.

### Key points:

- UK GDP grew by 0.2% in the three months to January 2019 and by 0.5% in January.
- Head of GDP Rob Kent-Smith said "... growth remained weak with falls in manufacture of metal products, cars and construction repair work all dampening economic growth. These were offset by strong performances in wholesale, IT and health services."

- The services industries grew by 0.5% in the three months to January 2019. Construction fell by 0.6% in the same period, and the production industries fell by 0.8%. All three sectors grew in January 2019.
- The month-on-month gross domestic product (GDP) growth rate was 0.2% in November, -0.4% in December 2018 and 0.5% in January.
- UK GDP grew by 1.4% in 2018.

### **Gross Domestic Product Forecast**

The latest monthly **Consensus Economics** <u>forecast survey</u> (which uses an average of private sector forecasts) results were published on 11<sup>th</sup> March 2019.

### Key points:

- The mean GDP for Q1 2019 was estimated at 1.4%.
- The mean GDP growth forecast for 2019 is 1.3% growth, down 0.1% from last month amid increasing uncertainties around Brexit.

The **Office for Budget Responsibility** published its most recent <u>Economic and Fiscal Outlook</u> on 13<sup>th</sup> March 2019.

Key point:

• The GDP growth forecast for 2019 was revised from 1.6% in October 2018, to 1.2%.

### **Construction Output Forecasts**

In January 2019, Experian published their forecasts for the construction sector.

Key points:

- Output is expected to increase by 0.8% in 2018, 0.4% in 2019, 2.5% in 2020 and 3.1% in 2021.
- Private housing will slow down but continue to rise steadily through the forecast period. Public housing will fall in 2018 but then recover strongly over the next three years.
- The infrastructure sector is forecast to continue to recover from a 3.4% downturn in 2016, it grew 10.2% in 2017 and is forecast to grow by 5% in 2018, 8% in 2019 and 10% in 2020 and 6% in 2021. The infrastructure work is expected to move from energy and water & sewage, to transport and sewage, led by Highways England's road upgrades and Thames Tideway.
- Private commercial building grew by 7.5% in 2017 but is forecast to decrease by 5% in 2018, 9% in 2019 and 5% in 2020 before the decline in halted in 2021. In total the sector is forecast to fall nearly 18% between 2017 and 2021. This decrease is thought to be due to a more cautious attitude from investors and developers in light of the EU Referendum vote in June 2016.

The **Construction Products Association** published their Autumn <u>forecasts</u> for the construction sector in January 2019.

Key points:

Overall, construction output is forecast to fall by 0.2% in 2018, downgraded from the Autumn forecast of +0.1%. The demise of Carillion and bad weather in Q1 2018 caused the loss of £1 billion of work. It is estimated that 60% of this work may be recovered, although work on two major Carillion hospital projects is on hold until at least 2019. There have been declines in

commercial offices and retail activity which counteracted significant growth in private housebuilding and infrastructure.

- In 2019, construction output is forecast to rise by 0.3%, reduced from 2.3% in the Summer forecast, as infrastructure projects and house building drive industry activity. Infrastructure is expected to reach the highest level on record in 2019 due to HS2, Thames Tideway and Hinkley Point C. Housebuilding activity is also expected to grow, encouraged by the extension of Help to Buy through to 2023.
- In 2020, construction output is forecast to rise by 1.6%. Growth in infrastructure is highly dependent on large projects such as HS2 and Hinkley Point C nuclear power station going ahead as planned, and there are some concerns due to the cancellation of the new nuclear power station at Wylfa and delays to Crossrail.

### Manufacturing

The latest **Index of Production** data for January 2019 were <u>published</u> on 12<sup>th</sup> March 2019 by the Office for National Statistics.

Key points for the SIC 23.1-4/7-9 industry (includes the manufacture of bricks, tiles and other construction products):

- When comparing January 2019 with January 2018, output decreased by 0.2%
- When comparing January 2019 with December 2018, output decreased by 3.4%

Key points for the SIC 23.5-6 industry (includes the manufacture of concrete, cement and other products for construction purposes):

- When comparing January 2019 with January 2018, output increased by 12.4%
- When comparing January 2019 with December 2018, output increased by 2.6%

# **Background Notes**

### Quality information for the Building Materials bulletin

1. The United Kingdom Statistics Authority has designated these statistics as National Statistics, in accordance with the Statistics and Registration Service Act 2007 and signifying compliance with the Code of Practice for Official Statistics.

Designation can be broadly interpreted to mean that the statistics:

- meet identified user needs;
- are well explained and readily accessible;
- are produced according to sound methods, and
- are managed impartially and objectively in the public interest.

Once statistics have been designated as National Statistics it is a statutory requirement that the Code of Practice shall continue to be observed. The full assessment <u>report</u>, published on 22nd December 2011, can be found on the UK Statistics Authority website.

2. In work done for the Department for Business, Innovation and Skills (BIS) on improving the quality of statistics published in the Monthly Statistics of Building Materials and Components, the Office for National Statistics' Methodology Advisory Service (MAS) recommended that BIS should start seasonally adjusting key data series (see <u>ONS/MAS review of building materials statistics</u>: final report for more detail). Seasonal adjustment is widely used in official statistics and aids data interpretation by removing effects associated with the time of the year or arrangement of the calendar. Seasonal effects frequently obscure features of interest in data, such as long term trends and the effects of unusual occurrences. By removing seasonal effects, users can more readily identify the features of interest.

Following advice from the MAS, and the results of a consultation (see the <u>results of the BIS</u> <u>consultation on seasonal adjustment</u> for more detail), BIS agreed to publish seasonally adjusted data for the following series:

Sand and gravel, total sales Concrete blocks, all types deliveries Bricks, all types deliveries Ready-mixed concrete, deliveries

For the initial publication of seasonally adjusted data, data from 1983 onwards will be seasonally adjusted. Subsequently, for each monthly publication, data up to 12 months or 4 quarters previous to the new data point will be revised. Upon the completion of each year's data series, data for the previous 12 years will be revised. BEIS will publish both non-seasonally adjusted and seasonally adjusted data in the tables of this publication. From the June 2015 edition this publication will only use seasonally adjusted data in the commentary for these series.

3. Quality issues related to the *Building Materials and Components* outputs are discussed in the review of the Building Material statistics that was carried out in 2010 by BIS's construction team. The review aimed to: ascertain user needs; examine whether existing data collection

methodologies are fit for purpose; estimate compliance costs; assess compliance with the Code of Practice; and identify options for change.

The full report can be found on the BEIS Building Materials and Components webpage.

Detailed information on data suppliers, coverage and data collection methodology can be found in sections 2.1-2.10. Quality issues (coverage and accuracy of sample panels, response rates, survey results processing, disclosure etc.) and potential measures that could be employed to improve the quality of the statistics are discussed in section 2.11 of the review. Users' views on the quality of the *Building Materials and Components* statistics are given in section 3.3.4. These are derived from a user survey carried out in early 2010, as part of the review (see section 3 for details).

- 4. Following the review, BIS acted on the recommendations including commissioning the Office for National Statistics Methodology Advisory Service (ONS/MAS) to address some of the recommendations from the 2010 review. In July 2011, MAS published their <u>interim report</u>. In July 2012, MAS published their <u>final report</u>.
- 5. HM Revenue and Customs use administrative sources to produce Overseas Trade Statistics. A <u>Statement of Administrative Sources</u> used to compile construction material trade statistics is available on the BEIS *Building Materials and Components* webpage:

Separately, HM Revenue and Customs also have a <u>Statement of Administrative Sources</u> which covers Overseas Trade Statistics.

- 6. <u>The pre-announcement of any major changes to samples or methodology</u> also details some methodological changes to the collection of data.
- 7. The following table gives a summary of response rates related to some of the latest survey results. Where the response rate is less than 100%, estimates are made for missing values.

For latest data used	Bulletin table number	Response rate
Quarterly Sand and Gravel	4, 5 & 6	88%
Quarterly Sand and Gravel – Land Won	4, 5 & 6	74%
Quarterly Sand and Gravel – Marine Dredged	4, 5 & 6	93%
Quarterly Slate	7	100%
Quarterly Concrete Roofing Tiles	13	100%
Monthly Bricks Provisional data	9	100%
Monthly Bricks Final data	9 & 10	100%
Monthly Concrete Blocks	11	96%

- 8. Change to the methodology for the land-won sand and gravel surveys. Previously we have used information from the Annual Minerals Raised Inquiry (AMRI) run by the Department for Communities and Local Government (now the Ministry for Housing, Communities and Local Government) in order to select the sample of sites which received the land-won sand and gravel survey and to weight the results to reflect the population. MHCLG no longer run AMRI, and so we have had to make changes to the sand and gravel surveys, which took effect from Q1 2017. The changes are:
  - We have changed the survey from a sample to a census, so that we now send forms to all sites identified as producing sand and/or gravel. This has increased our panel from about 200 sites to around 500, and means that we will no longer need to weight the returns. We will still need to impute for any non-response.

- We refreshed our panel of sites using information from the British Geological Survey, ensuring that it was upto-date.
- We made the survey statutory, bringing it into line with the marine-dredged sand and gravel survey which was already statutory. This means that respondents are required to complete the survey under the Statistics of Trade Act 1947.

# Uses of the data

9. The Building Materials and Components statistics are used for a variety of purposes, including policy development and evaluation concerning the construction products industry, as well as monitoring market trends. In a wider context, the figures are 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. For more information on the uses of the Building Materials statistics, their usefulness to users and users' views on the quality of these statistics, see Section 3 of the Building Materials and Components review.

# **Related Statistics**

- 10. <u>Construction Statistics: Sources and Outputs</u> lists the known sources of information available on the construction industry and their outputs. These include information on employees, employment, enterprises, output and new orders in the construction industry as well as the contribution of the industry to the economy. Related information, for example housing, is also included.
- 11. The <u>Construction Statistics Annual</u> brings together a wide range of statistics currently available on the construction industry from a variety of sources and provides a broad perspective on statistical trends in the construction industry, with some international comparisons.
- 12. In its monthly **Index of Production (IoP)** <u>publication</u>, the Office for National Statistics publishes Gross Value Added (seasonally adjusted, UK) data for the following two industries:
  - SIC 23.1-4/7-9 industry, which includes the manufacture of bricks, tiles and other construction products.
  - SIC 23.5-6 industry, which includes the manufacture of concrete, cement and other products for construction purposes.

These data are not directly comparable with the data in this bulletin, due to differences in coverage and methodology. They are nevertheless useful in illustrating the latest output trends of related construction materials as measured by the Office for National Statistics.

# Revisions

- 13. Our <u>revisions policy</u> can be found on the BEIS Building Materials webpage.
- 14. The pre-announcement of any major changes to samples or methodology and Summary of <u>Revisions</u> give further information on revisions and other changes to data and can also be found on the BEIS Building Materials webpage.

### **Pre-release access**

15. No pre-release access is granted to this publication.

# **Further information**

The most recently published bulletin and accompanying data tables can be found on BEIS' *Building Materials and Components* <u>website</u>.

Accompanying tables with data relating to 2011 are accessible from this link.

Accompanying tables for 2005 - 2010 are accessible from this link.

Requests for older data should be sent to MaterialStats@beis.gov.uk.

Please send us any comments or feedback you may have about this commentary.

Next publication: 1<sup>st</sup> May 2019

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Website: <u>Building Materials Construction Statistics</u>, part of the <u>Business, Energy and Industrial</u> <u>Strategy</u> website.



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