

## Index of Production, July 2011



Coverage: **UK**

Date: **07 September 2011**

Geographical Area: **UK and GB**

Theme: **Economy**

### Key points

- The seasonally adjusted index of production fell by 0.7 per cent in July 2011 compared to July 2010.
- The seasonally adjusted index of manufacturing rose by 1.9 per cent in July 2011 compared to July 2010.
- Between June 2011 and July 2011 overall production fell by 0.2 per cent, with manufacturing rising by 0.1 per cent.
- The manufacture of electrical & optical equipment was the main upwards driver on the month increasing by 1.0 per cent.

### Key figures

**Key figures July 2011**

	(Percentage change)				
	Index number	Most recent month on a year earlier	Most recent 3 months on a year earlier	Most recent month on previous month	Most recent 3 months on previous 3 months
	2006=100				
<b>Index of Production</b>	88.4	-0.7	-0.6	-0.2	-0.4
<b>Index of Manufacturing</b>	92.3	1.9	2.3	0.1	0.5

Table source: Office for National Statistics

**Download table**

[XLS](#) [XLS format](#)

(26.5 Kb)

**Supplementary analysis**

The seasonally adjusted index of production fell by 0.7 per cent in July 2011 compared with July 2010. A decrease of 14.3 per cent in the mining and quarrying sector was only partially offset by an increase of 1.9 per cent in the manufacturing sector. The energy sector decreased by 1.7 per cent in July 2011 compared with a year ago. For the mining and quarrying sector this was the 10th consecutive month on a year ago fall. The manufacturing sector saw the 18th consecutive month on a year ago rise.

Between July 2011 and June 2011 the seasonally adjusted index of production fell by 0.2 per cent. The mining and quarrying sector fell by 1.4 per cent and the energy sector fell by 1.1 per cent. The manufacturing sector rose by 0.1 per cent.

**Manufacturing**

The seasonally adjusted manufacturing output rose by 0.1 per cent in July 2011 compared with June 2011. This monthly rise follows a fall in manufacturing of 0.5 per cent in quarter 2 2011 compared with quarter 1 2011.

The month on month picture is mixed with seven manufacturing industries rising and six falling. The largest contribution of any industry to the monthly manufacturing growth rate is no greater than 0.1 percentage points.

The largest contributors to the month on month rise in manufacturing output were the electrical and optical equipment industries which rose by 1.0 per cent, followed by the coke, refined petroleum and nuclear fuels industries which rose by 7.0 per cent. In contrast, the textiles and leather clothing industries fell by 3.5 per cent in July 2011 compared to June 2011.

Manufacturing output rose in July 2011 by 1.9 per cent compared to July 2010. The transport equipment industries rose by 10.4 per cent, contributing 1.1 percentage points to the month on a year ago manufacturing growth rate. The food, drink and tobacco industries rose by 3.9 per cent, contributing 0.6 percentage points.

### **Mining and quarrying**

In July 2011, output of the mining and quarrying industries fell by 14.3 per cent compared to July 2010. The biggest decrease was in oil and gas production which fell by 16.3 per cent in July 2011 compared with a year ago.

Between July 2011 and June 2011 mining and quarrying decreased by 1.4 per cent. Oil and gas decreased by 1.5 per cent with maintenance reducing output at a number of sites.

### **Energy**

Energy has fallen on the month and on the month a year ago. Energy supply fell between July 2011 and June 2011 by 1.1 per cent, with decreases in electricity supply of 2.0 per cent and water supply by 1.5 per cent. Gas supply increased by 2.4 per cent on the month.

Between July 2011 and July 2010 energy supply fell by 1.7 per cent with all three energy industries falling. Gas supply decreased by 7.3 per cent, electricity supply decreased by 0.3 per cent and water supply decreased by 0.4 per cent.

### **Production in detail**

The Index of Production (IoP) measures the output of the production industries in the United Kingdom. Figures are adjusted for seasonal variations unless otherwise stated and the reference year is 2006 = 100. For an explanation of the terms used in this bulletin, please see the Background Notes section. Care should be taken when using the month on month growth rates due to their volatility. An assessment of the quality of the production statistics is available in the background notes.

## Growth rates and contributions to the Index of Production July 2011

Description	% of production	Volume (SA)	Contribution to production (% points)	Volume (SA)	Contribution to production (% points)
		Year on year growth (%)		Month on month growth (%)	
<b>Index of Production</b>	<b>100.0</b>	<b>-0.7</b>	<b>-0.7</b>	<b>-0.2</b>	<b>-0.2</b>
<b>Mining and Quarrying</b>	<b>15.6</b>	<b>-14.3</b>	<b>-1.9</b>	<b>-1.4</b>	<b>-0.2</b>
of which oil & gas extraction	14.4	-16.3	-2.1	-1.5	-0.2
<b>Manufacturing</b>	<b>74.4</b>	<b>1.9</b>	<b>1.5</b>	<b>0.1</b>	<b>0.1</b>
Food, drink & tobacco	10.9	3.9	0.5	0.6	0.1
Textiles, Leather and Clothing	2.1	1.2	0.0	-3.5	-0.1
Wood & wood products	1.3	2.7	0.0	3.8	0.0
Paper, printing & publishing	9.6	-2.3	-0.2	-0.3	0.0
Coke, refined petrol & nuclear fuels	1.3	-6.3	-0.1	7.0	0.1
Chemicals & man-made fibres	8.9	-3.3	-0.3	-0.6	-0.1
Rubber & plastic products	3.5	1.9	0.1	0.3	0.0
Non-metallic mineral products	2.6	0.8	0.0	1.9	0.0

<b>Basic metals &amp; metal products</b>	8.2	0.6	0.0	0.3	0.0
<b>Machinery &amp; equipment</b>	6.3	2.4	0.2	-0.3	0.0
<b>Electrical &amp; optical equipment</b>	8.3	5.6	0.4	1.0	0.1
<b>Transport equipment</b>	8.0	10.4	0.8	-0.7	-0.1
<b>Other manufacturing</b>	3.4	-0.2	0.0	-1.2	0.0
<b>Energy</b>	<b>10.0</b>	<b>-1.7</b>	<b>-0.2</b>	<b>-1.1</b>	<b>-0.1</b>
<b>Electricity</b>	6.3	-0.3	0.0	-2.0	-0.1
<b>Gas</b>	1.9	-7.3	-0.2	2.4	0.0
<b>Water</b>	1.8	-0.4	0.0	-1.5	0.0

**Table source:** Office for National Statistics

**Table notes:**

1. Individual contributions may not sum to the total due to rounding.
2. The Index of Production is made up Mining and Quarrying, Energy and Manufacturing. Manufacturing consists of 14 sub-sectors listed above with the percentage of the total they account for. For IoP purposes DB and DC are combined as both are small. The larger the percentage contribution, the more likely the impact on the overall manufacturing growth rate will be significant.

**Download table**

[XLS](#) [XLS format](#)

(16.5 Kb)

**Sector analysis**

**Mining and quarrying**

The seasonally adjusted index of mining and quarrying in July 2011 fell by 14.3 per cent compared with July 2010. In particular:

- oil and gas extraction decreased by 16.3 per cent
- the largest contributor to the 14.3 per cent year on year fall in overall mining and quarrying was approximately 15.4 percentage points from oil and gas extraction.

**Manufacturing**

The seasonally adjusted index of manufacturing in July 2011 rose by 1.9 per cent compared with July 2010. In detail:

- output increased in nine of the 13 manufacturing sub-sectors and fell in four sub-sectors
- the largest increases in output were in the transport equipment industries which rose by 10.4 per cent and food, drink & tobacco industries which rose by 3.9 per cent
- within the transport equipment industries, the main rises were in the mfr. of motor vehicles, 18.8 per cent and the mfr. of vehicle bodies & parts, engine parts, 14.2 per cent
- within the food, drink & tobacco industries, the main rises were in the mfr. of bread, biscuits, pastry goods & cakes, 9.7 per cent and the mfr. of meat and meat products, 5.7 per cent

### **Electricity, gas and water supply**

The seasonally adjusted index of the electricity, gas and water supply industries in July 2011 fell by 1.7 per cent compared with July 2010. The main movements were:

- gas supply output decreased by 7.3 per cent
- electricity supply output decreased by 0.3 per cent

### **Revisions**

This release conforms to the standard revisions policy for National Accounts. Table IOP5R shows the revisions to the estimates previously published on 09 August 2011. In this release, there are no periods open for revision.

### **Impact on GDP**

There is no impact on previously published GDP estimates arising from this release of IoP data.

### **Summary statistics**

[Summary statistics for Index of Production and Index of Manufacturing July 2011.](#)

### **Background notes**

#### **1. What's new?**

In accordance with the National Accounts revision policy, data will be supplied for the month of July 2011 only.

#### **Upcoming changes**

The index of Production release for August 2011 will have a revisions period back to January 1997. This will be in line with the open revisions period for the 2011 Blue Book publication.

Index of Production currently produces the statistical bulletin and tables in accordance with the 2003 UK Standard Industrial Classification System (SIC03). There will be a move over to a

system revised for 2007. From the August 2011 release in October 2011, IoP will be classified on a 2007 UK SIC basis. [Further information](#) can be found on the ONS website.

## 2. **Code of Practice for Official Statistics**

National Statistics are produced to high professional standards set out in the [Code of Practice for Official Statistics](#). They undergo regular quality assurance reviews to ensure that they meet customer needs. They are produced free from any political interference. © Crown copyright 2011.

## 3. **Understanding the data**

### **Short Guide to the Index of Production**

This Statistical Bulletin gives details of the index of output of the production industries in the United Kingdom. Index numbers of output in this Statistical Bulletin are on the base 2006=100 and are classified to the 2003 revision to the UK Standard Industrial Classification (SIC). The production industries, which accounted for 17.2 per cent of gross domestic product in 2006, cover mining and quarrying (Section C), manufacturing (Section D) and electricity, gas and water supply (Section E).

### **Interpreting the data**

The non-seasonally adjusted series contain elements relating to the impact of the standard reporting period, moving holidays and trading day activity. When making comparisons it is recommended that users focus on seasonally adjusted estimates as these have the seasonal effects and systematic calendar related components removed. Figures for the most recent months are provisional and subject to revision in light of (a) late responses to surveys and administrative sources and (b) revisions to seasonal adjustment factors which are re-estimated every month and reviewed annually (changes from the latest review are included in this release).

### **Use of the data**

The [ONS work programme consultation](#) which ended in December looked at customers views on how ONS could address customers' needs within a reducing budget.

### **Definitions and explanations**

Definitions found within the main statistical bulletin are listed here:

- Chained volume measure
 

An index number from a chain index of quantity. The index number for the reference period of the index may be set equal to 100 or to the estimated monetary value of the item in the reference period.
- Index Number

A measure of the average level of prices, quantities or other measured characteristics relative to their level for a defined reference period or location. It is usually expressed as a percentage.

- Seasonally adjusted

Seasonal adjustment aids interpretation by removing effects associated with the time of the year or the arrangement of the calendar, which could obscure movements of interest.

#### 4. Methods

The [Index of Production methodology](#) can be found on the ONS website.

##### Composition of the data

The Index of Production uses a variety of different data from sources which are produced on either a quarterly or monthly basis.

Most of the indicators are derived using current price turnover deflated by a suitable price index. This includes the Monthly Business Survey (MBS) data; an ONS short term survey on different sectors of the economy. It is one of the main data sources used in the compilation of the Index of Production.

##### Seasonal adjustment

The index numbers in this Statistical Bulletin are all seasonally adjusted. This aids interpretation by removing annually recurring fluctuations, for example, due to holidays or other regular seasonal patterns. Unadjusted data are also available.

Seasonal adjustment removes regular variation from a time series. Regular variation includes effects due to month lengths, different activity near particular events such as shopping activity before Christmas, and regular holidays such as the May bank holiday. Some features of the calendar are not regular each year, but are predictable if we have enough data - for example the number of certain days of the week in a month may have an effect, or the impact of the timing of Easter. As Easter changes between March and April we can estimate its effect on time series and allocate it between March and April depending on where Easter falls. Estimates of the effects of day of the week and Easter are used respectively to make trading day and Easter adjustments prior to seasonal adjustments.

##### Deflation

It is common for the value of a group of financial transactions to be measured in several time periods. The values measured will include both the change in the volume sold and the effect of the change of prices over that year. Deflation is the process whereby the effect of price change is removed from a set of values.

All series, unless otherwise quoted, are measured at constant basic prices. Deflators adjust the value series to take out the effect of price change to give the volume series.



## 5. Quality

### Basic quality information

Common pitfalls in interpreting series: Expectations of accuracy and reliability in early estimates are often too high. Revisions are an inevitable consequence of the trade off between timeliness and accuracy. Early estimates are based on incomplete data.

Very few statistical revisions arise as a result of 'errors' in the popular sense of the word. All estimates, by definition, are subject to statistical 'error' but in this context the word refers to the uncertainty inherent in any process or calculation that uses sampling, estimation or modelling. Most revisions reflect either the adoption of new statistical techniques, or the incorporation of new information which allows the statistical error of previous estimates to be reduced. Only rarely are there avoidable 'errors' such as human or system failures, and such mistakes are made quite clear when they do occur.

### Summary quality report

A [summary quality report \(130.1 Kb Pdf\)](#) for this Statistical Bulletin can now be found on the National Statistics website.

The 2005 median annual growth of MPI turnover, their associated standard errors and quality bands can now be found on the National Statistics website [here](#).

### National Accounts revisions policy

Figures for the most recent months are provisional and subject to revision in light of (a) late responses to the Monthly Business Survey MBS (previously the Monthly Production Inquiry MPI) and (b) revisions to seasonal adjustment factors which are re-estimated every period.

In the next bulletin, which will contain figures for August 2011 and will be published on 11 October 2011, the period open for revision will be from January 1997.

National Accounts revision policy is included [here](#).

### Revision triangles

One indication of the reliability of the key indicators in this bulletin can be obtained by monitoring the size of revisions. The table below is based on the revisions which have occurred over the last five years. Please note that these indicators only report summary measures for revisions. The revised data may, themselves, be subject to sampling or other sources of error.

The table below presents a summary of the differences between the first estimates published between July 2005 and June 2010 and the estimates published 12 months later.

## Revisions, July 2011

	Value in latest period (per cent)	Revisions between first publication and estimates produced twelve months later (% points)	
		Average over the last five years	Average over the last five years without regard to sign (average absolute revision)
Production output - 3 month on 3 month growth rate	-0.4	-0.05	0.25
Manufacturing output - 3 month on 3 month growth rate	0.5	-0.09	0.31
Production output - 1 month growth rate	-0.2	-0.07	0.26
Manufacturing output - 1 month growth rate	0.1	-0.05	0.27

Table source: Office for National Statistics

## Download table

 [XLS format](#)  
(14.5 Kb)

Spreadsheets giving revisions triangles of estimates for all months from December 1997 through to the current month, and the calculations behind the averages in the above table, are available on the National Statistics website.

[Revision triangles. \(1.25 Mb ZIP\)](#)

A statistical test has been applied to the average revisions to find out if they are statistically significantly different from zero. No such differences have been found.

The table uses historical data for the most recent 60 months, comparing the estimate at first publication with the estimate as published 12 months later. The numbers which underpin these averages will include normal changes due to late data and re-seasonal adjustment, but also

significant methodological changes, the most recent of which occurred in October 2003 (see article “Index of Production redevelopment” in Economic Trends, October 2002).

## 6. Publication policy

Details of the policy governing the release of new data are available from the press office. Also available is [a list of those given pre-publication access to the contents of this release \(27.5 Kb Pdf\)](#).

A complete set of series in the Statistical Bulletin are available to download free of charge on the [Data section](#) of the ONS website.

## 7. Accessing data

The complete run of data in the tables of this Statistical Bulletin is also available to view and download in electronic format free of charge using the [ONS Time Series Data service](#). Users can download the complete bulletin in a choice of zipped formats, or view and download their own selections of individual series.

ONS provides [an analysis of past revisions in the IoP and other Statistical Bulletins \(244.6 Kb Pdf\)](#) (previously known as First Release) which present time series. Details can be found on the ONS website.

[ONS now publishes revisions triangles](#) for all the main published key indicators on the National Statistics website.

## 8. Following ONS

You can follow ONS on [Twitter](#) and [Facebook](#).

## 9. Next publication: Tuesday 11 October 2011

**Issued by:** Office for National Statistics, Government Buildings, Cardiff Road, Newport NP10 8XG

### Media contact:

Tel: Media Relations Office 0845 6041858

Emergency on-call 07867 906553

Email: [press.office@ons.gsi.gov.uk](mailto:press.office@ons.gsi.gov.uk)

### Statistical contact:

Name: Robert Doody

Tel: 01633 455803

Email: [Indexofproduction@ons.gsi.gov.uk](mailto:Indexofproduction@ons.gsi.gov.uk)

**Contact us:**

Tel: 0845 601 3034

Email: [info@ons.gov.uk](mailto:info@ons.gov.uk)

Website: [www.ons.gov.uk](http://www.ons.gov.uk)

Twitter: [www.twitter.com/statisticsONS](http://www.twitter.com/statisticsONS)

10. Details of the policy governing the release of new data are available by visiting [www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html](http://www.statisticsauthority.gov.uk/assessment/code-of-practice/index.html) or from the Media Relations Office email: [media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)

These National Statistics are produced to high professional standards and released according to the arrangements approved by the UK Statistics Authority.

## Copyright

© Crown copyright 2011

You may use or re-use this information (not including logos) free of charge in any format or medium, under the terms of the Open Government Licence. To view this licence, visit [www.nationalarchives.gov.uk/doc/open-government-licence/](http://www.nationalarchives.gov.uk/doc/open-government-licence/) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

This document is also available on our website at [www.ons.gov.uk](http://www.ons.gov.uk).

## Statistical contacts

Name	Phone	Department	Email
Robert Doody	+44 (0)1633 455803	Index of Production	<a href="mailto:robert.doody@ons.gsi.gov.uk">robert.doody@ons.gsi.gov.uk</a>

**Next Publication Date:**

11 October 2011

**Issuing Body:**

Office for National Statistics

**Media Contact Details:**

Telephone: 0845 604 1858  
(8.30am-5.30pm Weekdays)

Emergency out of hours (limited service): 07867 906553

Email:

[media.relations@ons.gsi.gov.uk](mailto:media.relations@ons.gsi.gov.uk)