

Statistical bulletin

Producer price inflation, UK: March 2016

Changes in the prices of goods bought and sold by UK manufacturers including price indices of materials and fuels purchased (input prices) and factory gate prices (output prices).



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1 . Main points

The price of goods bought and sold by UK manufacturers, as estimated by the producer price index, continued to fall in the year to March 2016.

Factory gate prices (output prices) for goods produced by UK manufacturers fell 0.9% in the year to March 2016, compared with a fall of 1.1% in the year to February 2016.

Core factory gate prices, which exclude the more volatile food, beverage, tobacco and petroleum products, rose 0.2% in the year to March 2016, compared with a rise of 0.1% in the year to February 2016.

The overall price of materials and fuels bought by UK manufacturers for processing (total input prices) fell 6.5% in the year to March 2016, compared with a fall of 8.2% in the year to February 2016.

Core input prices, which exclude purchases from the more volatile food, beverage, tobacco and petroleum industries, fell 2.6% in the year to March 2016, compared with a fall of 3.4% in the year to February 2016.

2 . What is the producer price index (PPI)?

The [Producer Price Index \(PPI\)](#) is a monthly survey that measures the price changes of goods bought and sold by UK manufacturers and provides an important measure of inflation, alongside other indicators such as [Consumer Price Index \(CPI\)](#) and [Services Producer Price Index \(SPPI\)](#). This statistical bulletin contains a comprehensive selection of data on input and output index series. It contains producer price indices of materials and fuels purchased, and output of manufacturing industry by broad sector.

The output price indices measure change in the prices of goods produced by UK manufacturers (these are often called “factory gate prices”).

The input price indices measure change in the prices of materials and fuels bought by UK manufacturers for processing. These are not limited to just those materials used in the final product, but also include what is required by the company in its normal day-to-day running.

The factory gate price (the output price) is the price of goods sold by UK manufacturers and is the actual cost of manufacturing goods before any additional charges are added, which would give a profit. It includes costs such as labour, raw materials and energy, as well as interest on loans, site or building maintenance, or rent.

Core factory gate inflation excludes price movements from food, beverage, petroleum, and tobacco and alcohol products, which tend to have volatile price movements. It should give a better indication of the underlying output inflation rates.

The input price is the cost of goods bought by UK manufacturers for the use in manufacturing, such as the actual cost of materials and fuels bought for processing.

Core input inflation strips out purchases from the volatile food, beverage, tobacco and petroleum industries to give an indication of the underlying input inflation pressures facing the UK manufacturing sector.

3 . Output prices: summary

Factory gate inflation fell 0.9% in the year to March 2016, compared with a fall of 1.1% last month.

During 2012 and 2013, core factory gate inflation tended to run at a lower rate than total output inflation and showed a smaller degree of volatility. This trend changed in 2014, as total output fell into negative inflation: a result of the downward pressures from petroleum, which is excluded from the core measure of inflation. In 2015, total output inflation has remained consistently below core output price inflation, with total output averaging a fall of 1.7% during 2015 and core output averaging growth of 0.2% in the same period (Figure A).

Looking at the latest estimates (Table A), movements in factory gate prices over the 12 months to March 2016 were as follows:

- factory gate prices fell 0.9%, compared with a fall of 1.1% in the year to February 2016
- core factory gate prices rose 0.2%, compared with a rise of 0.1% in the year to February 2016
- factory gate inflation excluding excise duty fell 0.8%, compared with a decrease of 0.9% in the year to February 2016

Between February and March 2016:

- factory gate prices increased 0.3%, compared with an increase of 0.1% last month
- core factory gate prices increased 0.1% showing no change from last month

Table A: Output prices (home sales)

UK, October 2015 to March 2016

		percentage change					
		All manufactured products		Excluding food, beverage, tobacco and petroleum		All manufactured products excluding duty	
		1 month	12 months	1 month	12 months	1 month	12 months
2015	Oct	-0.2	-1.5	-0.1	0.3	-0.2	-1.3
	Nov	-0.2	-1.6	-0.2	-0.1	-0.2	-1.4
	Dec	-0.3	-1.4	0.2	0.1	-0.2	-1.1
2016	Jan	-0.1	-1.0	0.1	0.0	0.0	-0.8
	Feb	0.1	-1.1	0.1	0.1	0.0	-0.9
	Mar	0.3	-0.9	0.1	0.2	0.3	-0.8

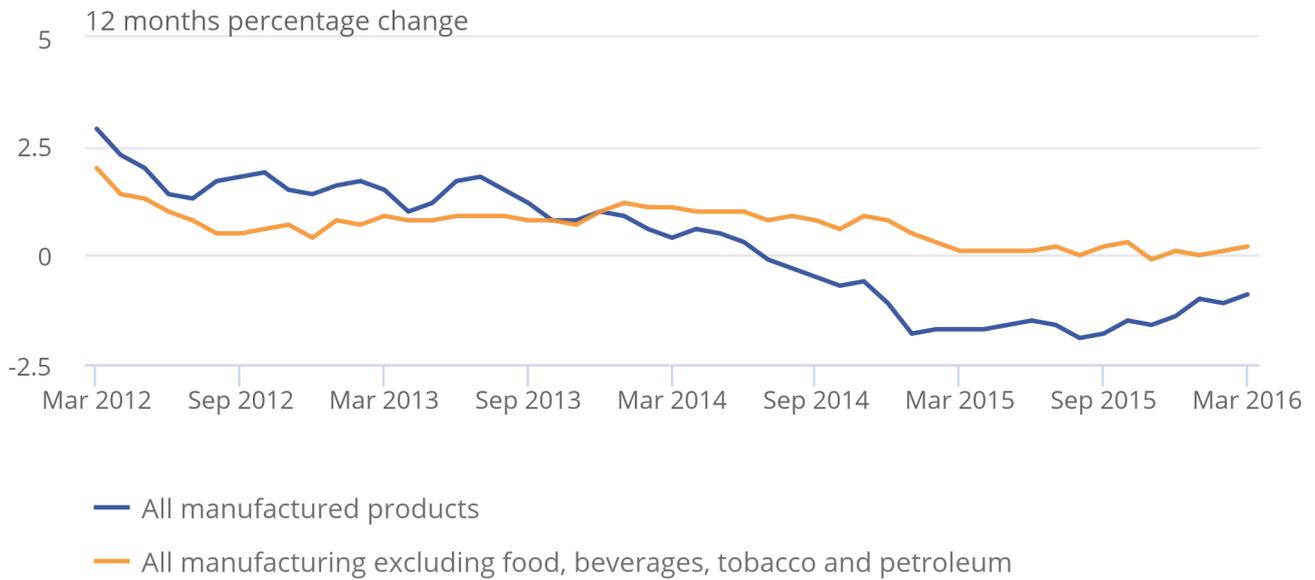
Source: Office for National Statistics

Figure A: Output prices

UK, March 2012 to March 2016

Figure A: Output prices

UK, March 2012 to March 2016



Source: Office for National Statistics

4 . Supplementary analysis: Output prices

Table B shows the annual percentage change in price across all product groups and Figure B shows their contribution to the annual factory gate inflation rate.

Table B: Output prices, 12 months change, March 2016

UK	
Product group	Percentage change
Food products	-1.8
Tobacco and alcohol (incl. duty)	0.4
Clothing, textile and leather	0.0
Paper and printing	-0.3
Petroleum products (incl. duty)	-11.9
Chemical and pharmaceutical	-1.7
Metal, machinery and equipment	0.5
Computer, electrical and optical	0.0
Transport equipment	0.9
Other manufactured products	1.2
All manufacturing	-0.9

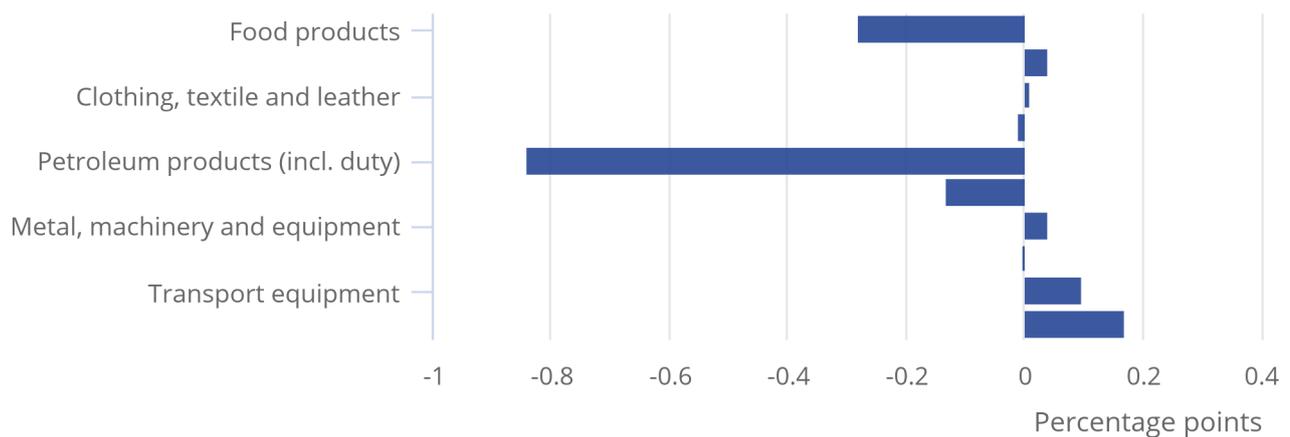
Source: Office for National Statistics

Figure B: Output prices, contribution to 12 months growth rate, March 2016

UK

Figure B: Output prices, contribution to 12 months growth rate, March 2016

UK



Source: Office for National Statistics

Table C shows the monthly percentage change in price across all product groups and Figure C shows their contribution to the month factory gate inflation rate.

Table C: Output prices, 1 month change, March 2016

UK	
Product group	Percentage change
Food products	0.3
Tobacco and alcohol (incl. duty)	0.2
Clothing, textile and leather	0.2
Paper and printing	0.1
Petroleum products (incl. duty)	2.8
Chemical and pharmaceutical	0.3
Metal, machinery and equipment	0.3
Computer, electrical and optical	-0.3
Transport equipment	0.1
Other manufactured products	0.2
All manufacturing	0.3

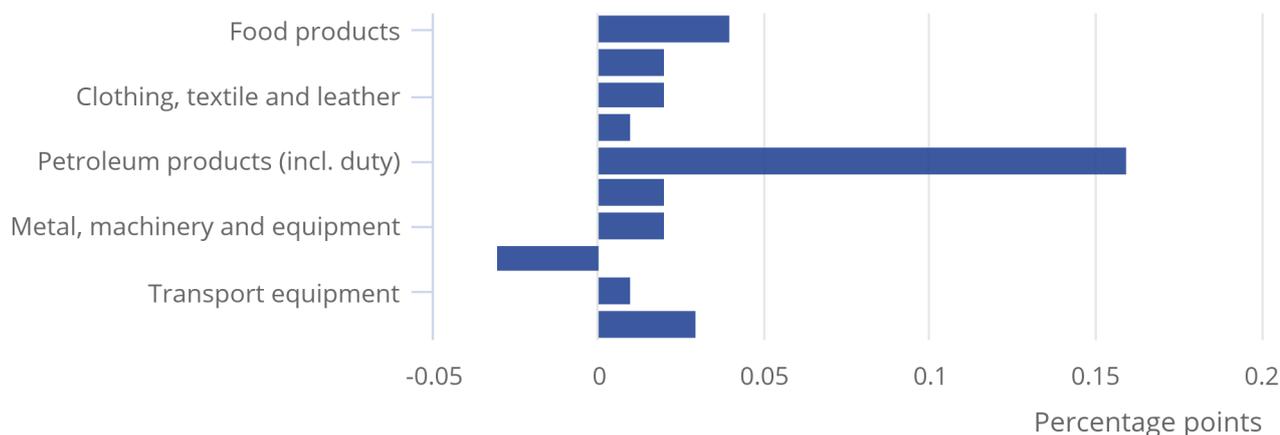
Source: Office for National Statistics

Figure C: Output prices, contribution to 1 month growth rate, March 2016

UK

Figure C: Output prices, contribution to 1 month growth rate, March 2016

UK



Source: Office for National Statistics

5 . Output prices: detailed commentary

Factory gate prices fell 0.9% in the year to March 2016, compared with a decrease of 1.1% in the year to February 2016. This index has now seen negative movements on the year for 21 consecutive months. The main contribution to the annual rate for March 2016 came from petroleum products. A fall in the price of food products also contributed towards the fall in the output price of manufactured products (Figure B).

Petroleum product prices fell 11.9% in the year to March 2016, compared with a fall of 12.4% in the year to February. This index has now seen year on year falls for 31 consecutive months. The main contributions to the latest fall in the annual rate came from diesel and gas oil, aviation turbine fuel and motor spirit.

Food products fell 1.8% in the year to March 2016, down from a fall of 1.5% in the year to February 2016. The main contributions to this fall came from prepared animal feeds, preserved meat and meat products, and bakery and farinaceous products with prices falling by 4.8%, 1.6% and 2.2% respectively on the year.

The monthly price index saw a rise of 0.3% between February and March 2016, up from a rise of 0.1% last month. Most product groups showed small movements except petroleum products (incl. duty), which provided the largest upward contribution to the monthly rate (Figure C).

Between February and March 2016, petroleum prices rose by 2.8%, compared with a rise of 0.4% between January and February 2016. Increases in the price of diesel and gas oil provided the main upward pressure on this index.

Core factory gate inflation

Core factory gate prices, which exclude the more volatile food, beverage, tobacco and petroleum product prices, giving a measure of the underlying factory gate inflation, rose 0.2% in the year to March 2016, compared with a rise of 0.1% in the year to February 2016. This was driven by an increase in the price of transport equipment.

The monthly index showed an increase of 0.1% between February and March 2016, no change from the previous 2 months. Increases in other manufactured products, chemicals and pharmaceuticals, and metals, machinery and equipment were offset by a fall in the price of computer, electrical and optical products.

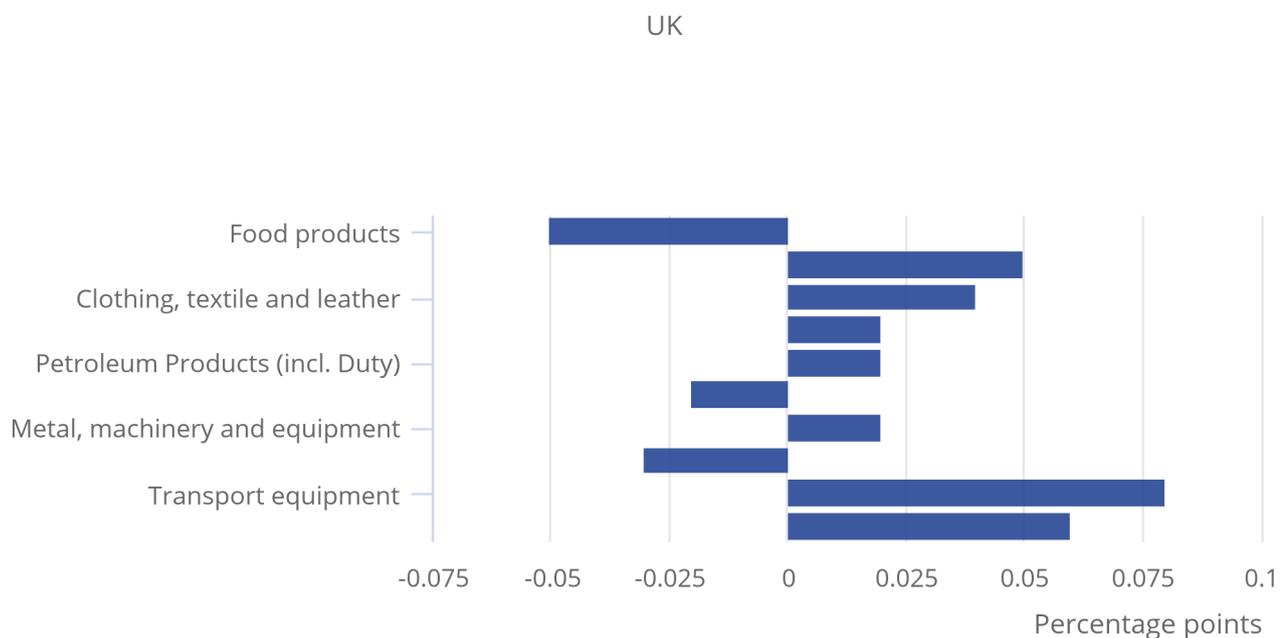
Output producer price index contribution to change in rate

The annual percentage rate for the output PPI in March 2016 fell 0.9%, up from a fall of 1.1% last month, resulting in an increase in the annual rate of 0.2 percentage points. This increase was driven by the majority of sections showing small upward contributions, the most significant of which coming from transport equipment (Figure D).

Figure D: Output 12 month contribution to change in rate between February and March 2016

UK

Figure D: Output 12 month contribution to change in rate between February and March 2016



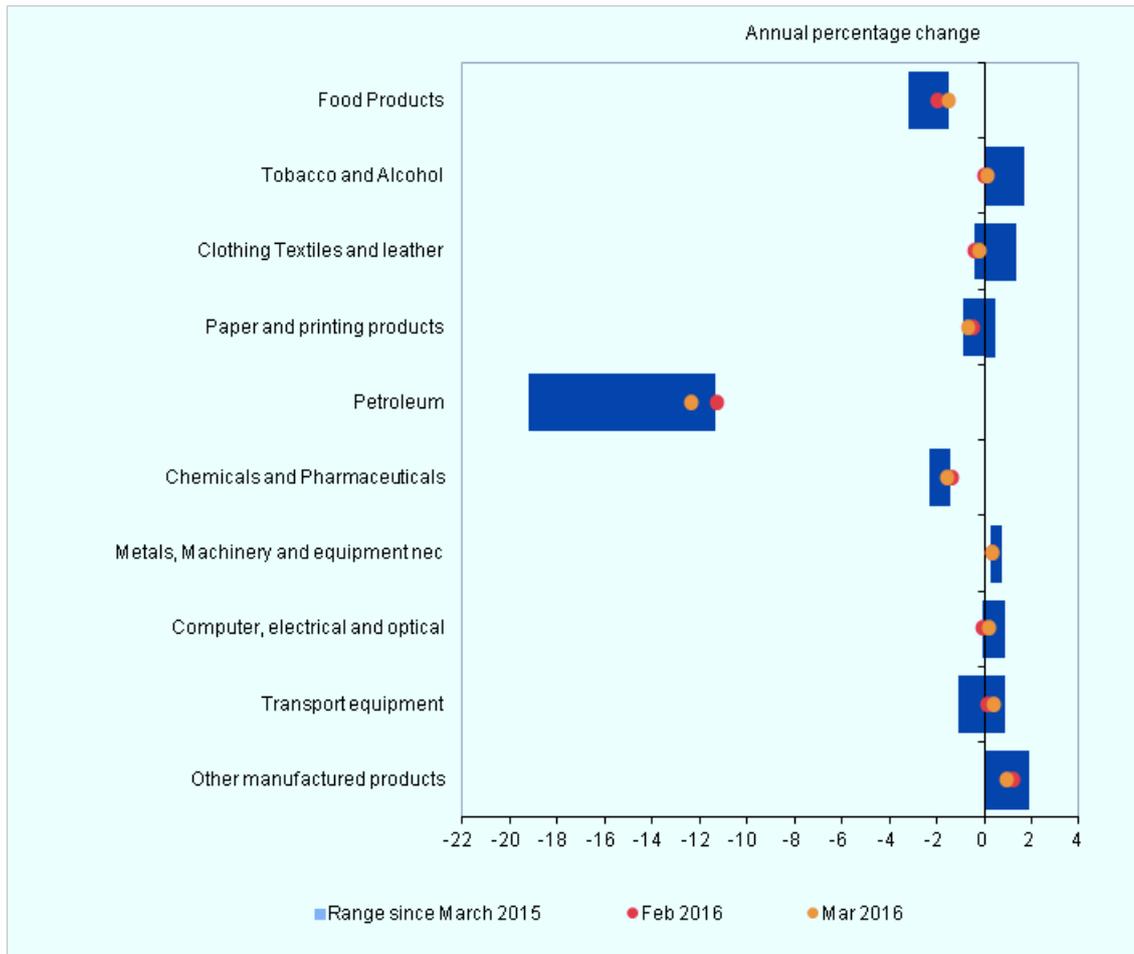
Source: Office for National Statistics

6 . Output PPI range of movements

Figure E shows the year on year growth in output PPI by grouping for the latest 2 months and the range of the price changes that have been seen in these sections since March 2015. It can be seen that the majority of output PPI indices have experienced little variance in inflation in the past 12 months. Petroleum shows the biggest decrease, as well as the biggest range of movements; ranging from falls of 19.2% in September 2015 to 11.3% in January 2016. Other manufactured products show the biggest increase, ranging from rises of 1.8% in July 2015 to 0.3% in March 2015.

Figure E: Output PPI range of movements, March 2015 to March 2016

UK



Source: Office for National Statistics

Notes:

1. nec = not elsewhere classified

7 . Input prices: summary

Figure F shows the annual movements in total input prices (including materials and fuels) and core input prices (excluding purchases from food, beverage, tobacco and petroleum industries) of materials and fuels purchased by the UK manufacturing industry. Between April 2012 and October 2013, both series showed relatively similar movements. From November 2013, both series have been showing a downward trend, with total input prices falling more rapidly. There has been a significant gap in the price movements of total input prices and core input prices since November 2014, however, this gap has been narrowing in recent months. Currently there is a difference of 3.9 percentage points, compared with a maximum of 10.9 percentage points in January 2015.

Looking at the latest data (Table D), the main movements in the year to March 2016 were as follows:

- the total input price index fell 6.5%, compared with a fall of 8.2% in the year to February 2016
- the core input price index saw a fall of 2.6%, compared with a fall of 3.4% in the year to February 2016
- the price of imported materials as a whole (including crude oil) fell 5.5%, compared with a decrease of 6.8% in the year to February 2016

Between February and March 2016:

- the total input price index rose 2.0%, compared with a rise of 0.1% last month (Table D)
- the seasonally adjusted input price index for the manufacturing industry excluding the food, beverage, tobacco and petroleum industries (see Table D) rose 0.2%, compared with an increase of 0.4% last month

Table D: Input prices

UK, October 2015 to March 2016

	Percentage change				
	Materials and fuels purchased		Excluding purchases from food, beverage, tobacco and petroleum industries		
	1 month (NSA) ¹	12 months (NSA) ¹	1 month (NSA) ¹	12 months (NSA) ¹	1 month (SA) ²
2015 Oct	0.0	-12.3	-0.7	-6.8	-1.3
Nov	-1.6	-13.1	-1.3	-8.5	-1.6
Dec	-0.3	-10.4	1.1	-6.6	1.1
2016 Jan	-1.2	-8.1	0.2	-5.2	0.2
Feb	0.1	-8.2	0.6	-3.4	0.4
Mar	2.0	-6.5	0.7	-2.6	0.2

Source: Office for National Statistics

Notes:

1. NSA: Not Seasonally Adjusted

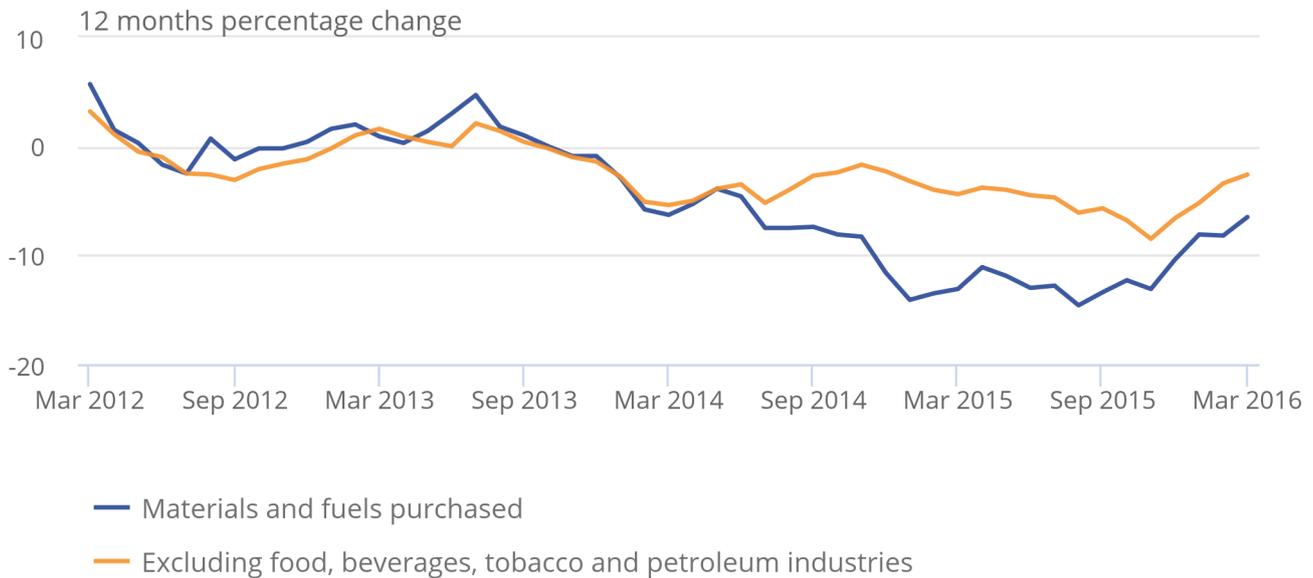
2. SA: Seasonally Adjusted

Figure F: Input prices (materials and fuel) manufacturing industry

UK, March 2012 to March 2016

Figure F: Input prices (materials and fuel) manufacturing industry

UK, March 2012 to March 2016



Source: Office for National Statistics

Notes for Input prices: summary

1. Input price indices include the [Climate Change Levy](#) which was introduced in April 2001.
2. Input price indices include the [Aggregate Levy](#) which was introduced in April 2002.

8 . Supplementary analysis: Input prices

Table E and Figure G show the percentage change in the price of the main commodities groups over the year and their contributions to the total input index.

Table E: Input prices, 12 months change, March 2016

UK	
Product group	Percentage change
Fuel including Climate Change Levy	-7.0
Crude oil	-30.6
Home food materials	-3.7
Imported food materials	-1.3
Other home-produced materials	-0.3
Imported metals	-9.0
Imported chemicals	-1.5
Imported parts and equipment	2.2
Other imported materials	2.0
All manufacturing	-6.5

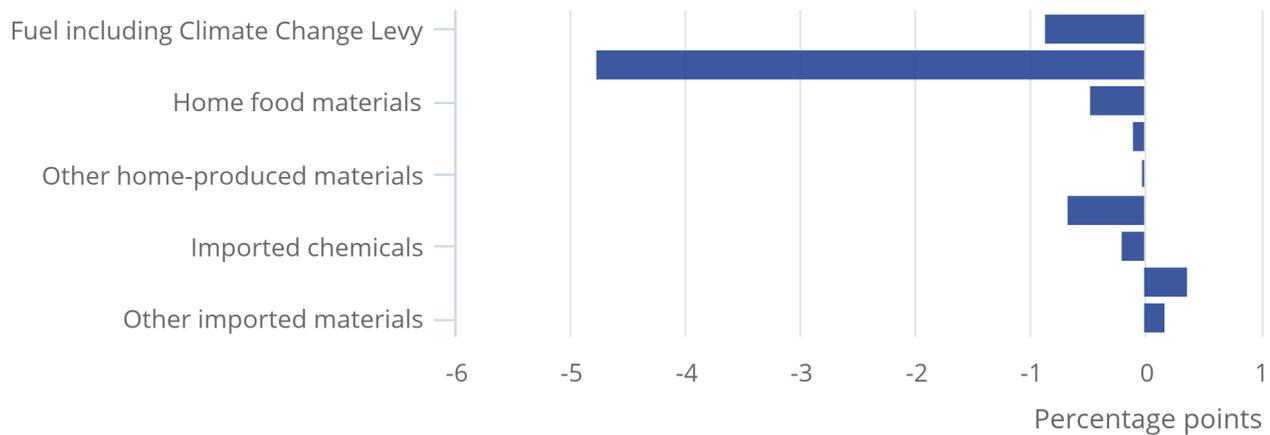
Source: Office for National Statistics

Figure G: Input prices, contribution to 12 months growth rate, March 2016

UK

Figure G: Input prices, contribution to 12 months growth rate, March 2016

UK



Source: Office for National Statistics

Table F and Figure H show the percentage change in the price of the main commodities groups over the month and their contributions to the total input index.

Table F: Input prices, 1 month change, March 2016

UK	
Product group	Percentage change
Fuel including Climate Change Levy	-0.1
Crude oil	15.7
Home food materials	0.4
Imported food materials	0.5
Other home-produced materials	0.2
Imported metals	4.1
Imported chemicals	-0.4
Imported parts and equipment	0.2
Other imported materials	0.3
All manufacturing	2.0

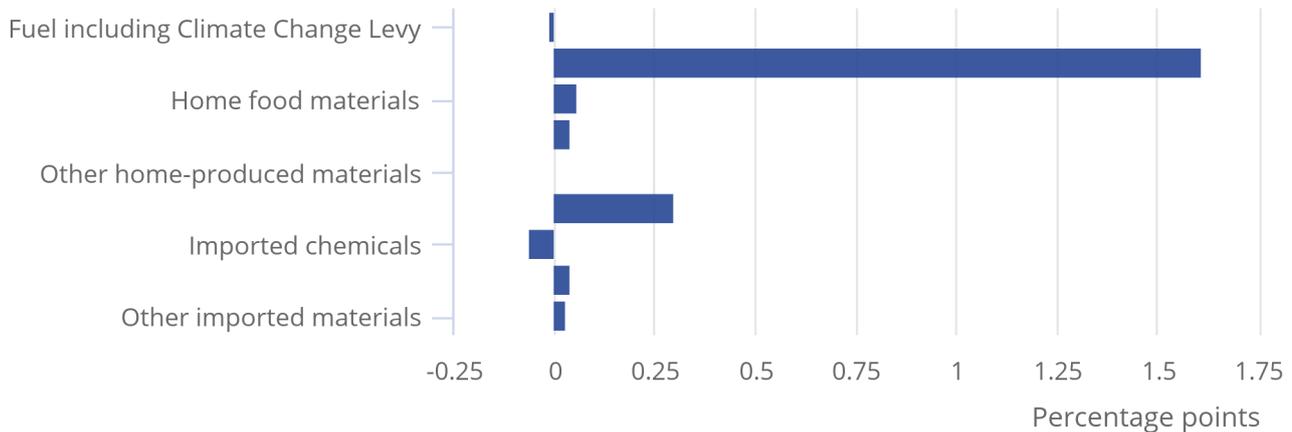
Source: Office for National Statistics

Figure H: Input prices, contribution to 1 month growth rate, March 2016

UK

Figure H: Input prices, contribution to 1 month growth rate, March 2016

UK



Source: Office for National Statistics

9 . Input prices: detailed commentary

The overall input index for all manufacturing, which measures changes in the price of materials and fuels purchased by manufacturers, fell 6.5% in the year to March 2016, compared with a fall of 8.2% in the year to February 2016. The main downward contributions to the index came from crude oil with smaller, but notable, downward contributions from fuel (incl. climate change levy) and imported metals.

The monthly input index rose 2.0% between February and March 2016, compared with a rise of 0.1% between January and February 2016. This is the largest month on month increase seen in the input index since February 2013, when the index rose 2.5%. Increases were seen in 7 of the 9 groups, by far the most significant was in crude oil, with a notable increase also seen in imported metals (see Table F and Figure H).

Imported metal prices fell 9.0% in the year to March 2016, compared with a fall of 13.5% in the year to February 2016. Although this is a considerable decrease it is the smallest seen in this index since June 2015, when prices also fell 9.0%. The main contribution came from imported products used in the manufacture of other basic metals and casting, which fell 10.4%. The prices of the majority of metals measured in the PPI have fallen significantly, with many metal market prices ending 2015 at low levels. This may have been contributed to by a reduction in growth in the Chinese economy. The PPI imported metals index is currently at levels not seen since 2006. Until recently the Chinese economy has seen strong growth resulting in high demand for metals, which may have contributed to increased prices. Reduced demand growth resulting from a slowdown of China's economy may have been a factor in reducing prices, alongside uncertainty about growth prospects in a number of emerging economies. However, the increase in imported metal prices of 4.1% between February and March is the largest month on month growth seen in this index since February 2013.

Crude oil annual prices have been falling since October 2013. The index fell 30.6% in the year to March 2016, compared with a decrease of 37.0% in the year to February 2016. The monthly index for crude oil rose 15.7% between February and March 2016, compared with a fall of 2.1% between January and February 2016. This is the largest month on month increase seen in this index since August 2004, when prices rose 16.8%. The main contribution to both the annual and monthly indices came from imported crude petroleum and natural gas, which fell 30.5% in the year to March 2016 but rose 14.8% between February and March 2016.

Core input price index (excluding purchases from the food, beverage, tobacco and petroleum industries)

The seasonally adjusted core input price index increased 0.2% between February and March 2016, compared with an increase of 0.4% between January and February 2016. In the year to March 2016, the index fell 2.5% compared with a fall of 3.3% in the year to February 2016.

The unadjusted index fell 2.6% in the year to March 2016, compared with a decrease of 3.4% in the year to February 2016. The monthly index increased 0.7% between February and March 2016, compared with an increase of 0.6% between January and February 2016. This increase in the monthly rate is driven by rises in imported metals and other imported parts and equipment.

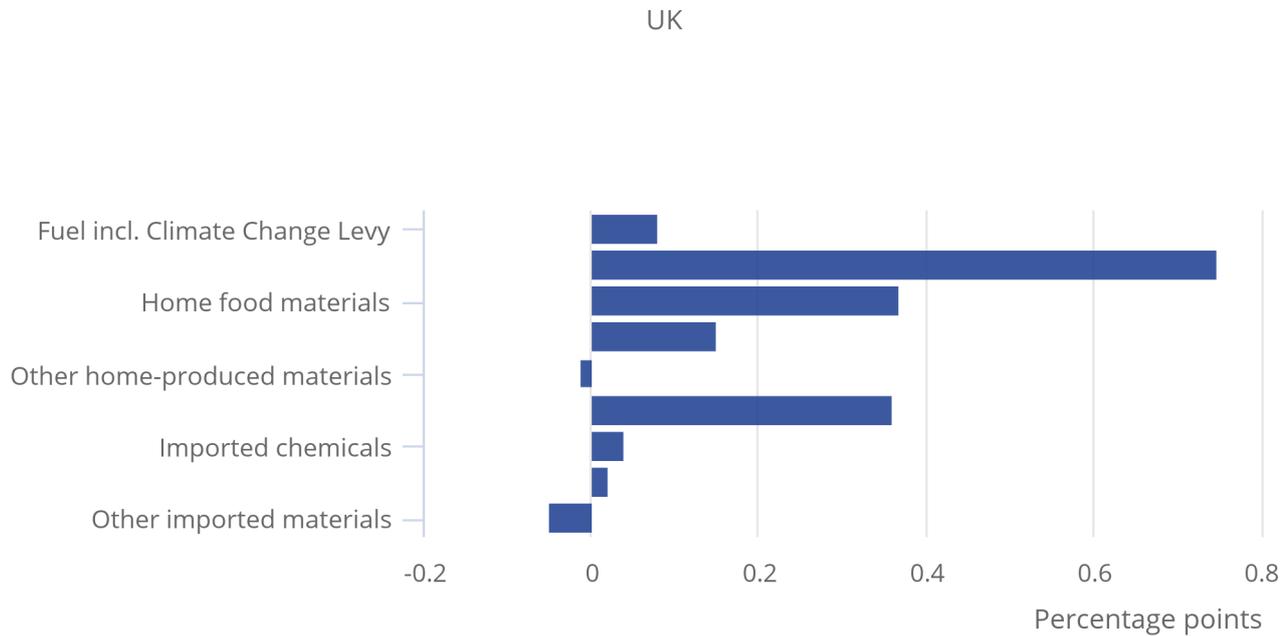
Input producer price index contribution to change in rate

The annual percentage rate for the input PPI in March 2016 fell 6.5%, compared with a decrease of 8.2% last month, resulting in a rise in the annual rate of 1.7 percentage points. The most notable upward contribution came from crude oil, which saw prices drop on the year to March, but by less than they did in the year to February (Figure I).

Figure I: Input 12 month contribution to change in rate between February and March 2016

UK

Figure I: Input 12 month contribution to change in rate between February and March 2016



Source: Office for National Statistics

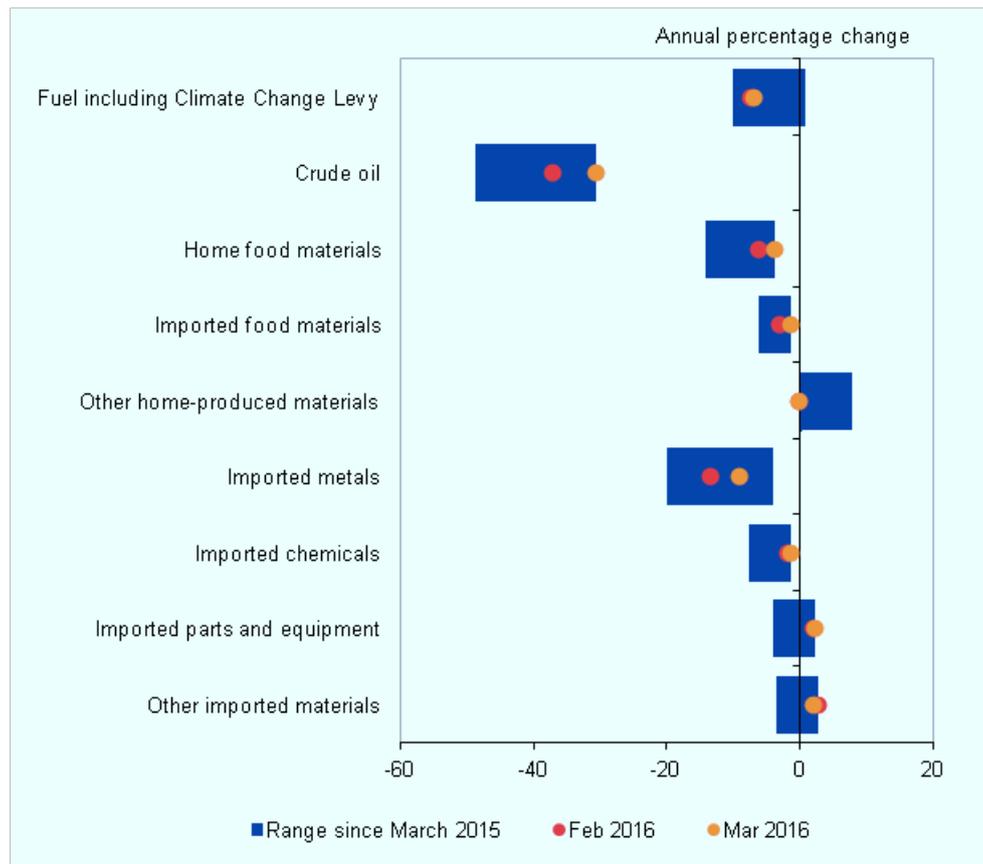
10 . Input PPI indices range of movements

Figure J shows the year on year growth in input PPI by grouping for the latest 2 months and the range of the price changes that have been seen in these groupings since March 2015. Crude oil shows the biggest decrease, ranging from falls of 48.6% in August 2015 to 30.6% in both January and March 2016. This is also the widest range of price movements seen in any PPI grouping in this period.

Other home-produced materials shows the biggest increase, ranging from rises of 7.7% in March 2015 to a fall of 0.3% in March 2016.

Figure J: Input PPI range of movements, March 2015 to March 2016

UK



Source: Office for National Statistics

11 . Economic context

Input producer prices fell 6.5% in the year to March 2016, compared with an 8.2% decrease in the year to February 2016, continuing the current trend of falling input prices. Output prices also fell in the year to March, which would suggest that lower input costs are feeding into the price of manufacturing goods. Output producer price inflation strengthened slightly from a fall of 1.1% in the year to February 2016, to a fall of 0.9% in the year to March 2016.

The decline in input and output producer prices inflation can be partly attributed to lower oil and petroleum prices, as the cost of crude oil, energy and refined petroleum products has continued to influence the price of manufactured goods. Crude oil prices have been on a downwards trajectory, falling from around \$108 per barrel in March 2014 to around \$57 per barrel in March 2015, and to around \$40 per barrel in March 2016. However, oil prices have stabilised and increased in recent months: rising by 18.2% in March 2016 compared with the previous month: the second consecutive month of oil price increases, which may partly reflect a potential production freeze between main oil producers. These recent increases notwithstanding, the fall in the oil price on the year meant that, oil and refined petroleum product prices accounted for 4.8 percentage points of the 6.5% fall in input producer prices in the year to March 2016 and 0.84 percentage points of the 0.9% fall in output producer prices respectively over the same period.

Along with the decrease in oil prices, imported metal prices accounted for a further 0.7 percentage points of the 6.5% fall in input producer price inflation in March 2016. Metal prices have been on a downward trend since 2011, widely attributed to a slowdown in demand-growth from China, the largest consumer of metal commodities. However, imported metal prices increased by 4.1% in March 2016, compared with a 2.0% increase in the previous month.

Alongside recent changes in commodity prices, changes in the exchange rate may also have had an impact on producer prices. In trade weighted-terms, sterling has depreciated by 5.1% in the year to March 2016, compared with 3.7% in the year to February 2016. All else equal, a depreciation of sterling increases the prices of UK imports, with a corresponding impact on the prices paid by producers for imports. If these producers raise their prices in turn, then movements in the exchange rate can influence input and output producer prices. Sterling has continued to depreciate against the US dollar, by 4.7% in the year to March 2016, while sterling depreciated against the euro by 7.3% over the same period. Sterling also depreciated by 0.7% against the Chinese Yuan in the year to March 2016.

While lower commodity prices and changes in the exchange rate have had the greatest impact on producer prices, the strengthening of the UK labour market may also be supporting the prices of manufacturers. The unemployment rate amongst those aged 16 and above remained steady at 5.1% in the 3 months to December 2015, while the employment rate amongst those aged 16 to 64 remained at 74.1% during the same period. Output per hour worked in manufacturing, growth in which permits firms to produce more output per unit of labour input, fell by 2.0% in the year to Quarter 3 (July to September) 2015. Despite productivity falling, total weekly earnings have been positive in recent months. Wages in the manufacturing sector grew by 2.2% in the 3 months to January 2016, when compared with the same 3 months a year earlier, which was the largest increase in wages since March 2014. This may have partially offset the lower cost pressures from commodity prices.

With a number of factors affecting input and output prices, the demand for goods and services in the UK economy remained strong in Quarter 4 (October to December) 2015, with GDP revised upwards to 0.6%. However, much of this growth has been concentrated in the services sector, the output of which increased by 0.8% from the previous quarter, while manufacturing output grew by 0.1%, following a decrease of 0.4% in Quarter 3 2015.

12 . Revisions

For this bulletin [Producer price index dataset Tables 8R and 9R](#) highlight revisions to movements in price indices previously published in [last month's statistical bulletin](#). These are mainly caused by changes to the most recent estimates, as more price quotes are received, and revisions to seasonal adjustment factors, which are re-estimated every month.

For more information about our [revisions policy](#), see our website.

Table G: Revisions between first publication and estimates 12 months later

UK		Percentage	
	Value in latest period	Revisions between first publication and estimates 12 months later	
		Average over the last 5 years	Average over the last 5 years without regard to sign (average absolute revision)
Total output (JVZ7) - 12 months	-0.9	-0.14	0.20
Total output (JVZ7) - 1 month	0.3	-0.01	0.08
Total input (K646) - 12 months	-6.5	0.04	0.33
Total input (K646) - 1 month	2.0	0.05	0.26

Source: Office for National Statistics

Notes:

1. *Statistically significant

Revisions to data provide one indication of the reliability of main indicators. Table G shows summary information on the size and direction of the revisions which have been made to the data covering a 5-year period. A statistical test has been applied to the average revision to find out if it is statistically significantly different from zero. An asterisk (*) shows that the test is significant.

Table G presents a summary of the differences between the first estimates published between 2011 and 2015 and the estimates published 12 months later. These numbers include the effect of the reclassification onto [Standard Industrial Classification \(SIC\) 2007](#).

Spreadsheets giving revisions triangles of estimates for all months from February 1998 through to December 2015 and the calculations behind the averages in the table are available in the [producer price inflation datasets](#).

[Revision triangle for total output \(12 months\)](#)

[Revision triangle for total output \(1 month\)](#)

[Revision triangle for total input \(12 months\)](#)

[Revision triangle for total input \(1 month\)](#)

13. Background notes

1. PPI standard errors

We have published an article on the [analysis of Producer Price Indices \(PPI\)](#) using standard errors with the [November 2015 release](#). The article presented the calculated standard errors of the PPI during the period December 2014 to November 2015, for both month-on-month and 12-month growth.

2. PPI guidance

[Guidance on using indices in indexation clauses](#) has been published on our website. It covers producer prices, services producer prices and consumer prices.

An up-to-date manual for the producer price index, including the import and export index is now available. [PPI methods and guidance](#) provides an outline of the methods used to produce the PPI as well as information about recent PPI developments.

3. How are we doing?

We are constantly aiming to improve this release and its associated commentary. We would welcome any feedback you might have, and would be particularly interested in knowing how you make use of these data to inform your work. Please contact us via email: ppi@ons.gsi.gov.uk

4. Article about rebasing the PPI onto 2010=100

As previously announced, we have taken forward the rebasing of the PPI onto a 2010=100 basis. The first published data using 2010=100 was released in November 2013. An [article describing the results of this assessment](#) was also published on 12 November 2013.

5. Finding PPI data

All of the data included in this statistical bulletin, alongside data for the full range of PPIs, is available in the associated datasets. Also available are the datasets for the [Aerospace and Electronic Indices](#) and the [Producer Price Indices](#). There are [PPI records](#) available which give the higher, lower and equal to movements for each index. Each PPI has 2 unique identifiers: a 10 digit index number, which relates to the [Standard Industrial Classification](#) code appropriate to the index and a 4-character alpha-numeric code, which can be used to find series when using the time series dataset for PPI.

6. Quality and Methodology Information

A [Quality and Methodology Information \(QMI\)](#) paper for the PPI describes in detail the intended uses of the statistics presented in this publication, their general quality and the methods used to produce them.

7. European comparability

The UK is required to compile and deliver the PPI to Eurostat under the [Short-Term Statistics Regulation](#). As a result, all EU countries must produce equivalent series on a comparable basis. Eurostat produce European aggregates for PPI and publish a monthly press release. This release uses the gross sector PPI as the headline figure; here in the UK, we publish the top level PPI on a net sector basis. Detailed PPI figures for the UK and the rest of the EU are also published on Eurostat's website

8. Relevance to users

Index numbers shown in the main text of this bulletin are on a net sector basis. The index for any sector relates only to transactions between that sector and other sectors, sales and purchases within sectors are excluded. However, the more detailed figures shown in [Producer price index dataset 4 and 6](#) are on a gross basis; that is, intra industry sales and purchases are included in each of these indices.

Indices relate to average prices for a month. The full effect of a price change occurring part way through any month will only be reflected in the following month's index.

All index numbers exclude VAT. Excise duty (on cigarettes, manufactured tobacco, alcoholic liquor and petroleum products) are included, except where labelled otherwise. Since PPIs exclude VAT, they are not affected by the increase in the standard rate of VAT to 20% from 4 January 2011.

The detailed input indices of prices of materials and fuels purchased by industry ([Producer price index dataset table 6](#)) do not include the climate change levy (CCL). This is because each industry can, in practice, pay its own rate for the various forms of energy, depending on the various negotiated discounts and exemptions that apply.

9. Common pitfalls in interpreting series

Expectations of accuracy and reliability in sample surveys are often too high. Revisions and sampling variability are inevitable consequences of the trade off between timeliness, accuracy and the burden on respondents. Details of sampling variability are included elsewhere in this bulletin.

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 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 are discovered and corrected.

10. Definitions and explanations

Definitions found within the main statistical bulletin are listed here:

Index number

A measure of the average level of prices, quantities or other measured characteristics, relative to their level for a defined reference period of location. It is usually expressed as a percentage above or below, but relative to, the base index of 100.

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. Seasonal adjustment removes regular variation from a time series. Regular variation includes effects due to month lengths, different activity near particular events, such as bank holidays and leap years.

Sampling variability

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. Data in the bulletin are based on statistical samples and, as such, are subject to sampling variability. If many samples were drawn, each would give different results.

Prices

All characteristics that determine the price of the products – including quantity of units sold, transport provided, rebates, service conditions, guarantee conditions and destination – are taken into account.

The appropriate price is the basic price, which excludes VAT and similar deductible taxes directly linked to turnover, as well as all duties and taxes on the goods and services invoiced by the unit, whereas any subsidies on products received by the producer are added.

Transport costs are included but only as part of the product specification.

An actual transaction price and not a list price are given to show the true development of price movements.

The output price index takes into account the quality changes in products.

The price collected in period t refers to orders booked during period t (time of the order), not when the commodities leave the factory gates.

For output prices on the non-domestic market, the price is calculated at national frontiers, FOB (free on board). This means that the seller pays for transportation of the goods to the port of shipment, plus loading costs, and the buyer pays freight, insurance, unloading costs and transportation from the port of destination to the factory.

11. Accuracy

Figures for the latest 2 months are provisional and the latest 5 months are subject to revisions in light of (a) late and revised respondent data and (b), for the seasonally adjusted series, revisions to seasonal

adjustment factors are re-estimated every month. A routine seasonal adjustment review is normally conducted in the autumn each year.

Every 5 years, producer price indices are rebased, and their weights updated to reflect changes in the industry. The [rebasings article](#) referred to in background note 1, informs users about work underway to rebase PPIs from a 2005=100 basis to a 2010=100 basis, and update the weights. PPIs will move to a 2010=100 basis from autumn 2013. More information about the impact of rebasing will be published as the project progresses and will be drawn to users' attention in the regular statistical bulletin.

12. Publication policy

There is a list of [publication dates](#) also available up to January 2017 on our release calendar.

Details of the policy governing the release of new data are available from our Media Relations Office.

A list of the names of those given pre-publication access to the contents of this bulletin is available on the [Producer Price Index: Pre-release access list](#).

13. Code of Practice

[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 and released according to the arrangements approved by the [UK Statistics Authority](#).

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1 Output Prices: Summary (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

	Net Sector						Gross Sector					
	Output of manufactured products			All manufacturing excluding food, beverages, tobacco and petroleum			Food products, beverages and tobacco, including duty			Coke and refined petroleum products, including duty		
	Index (2010=100)	percentage change over		Index (2010=100)	percentage change over		Index (2010=100)	percentage change over		Index (2010=100)	percentage change over	
		1 mth	12 mths		1 mth	12 mths		1 mth	12 mths		1 mth	12 mths
	7200700000			7200799000			7111101280			7112190080		
	JVZ7			K3BI			K65A			K37Y		
2015 Sep	106.3	-0.1	-1.8	105.9	0.1	0.2	110.7	-0.4	-1.9	88.6	-1.2	-19.2
Oct	106.1	-0.2	-1.5	105.8	-0.1	0.3	110.3	-0.4	-1.5	87.7	-1.0	-17.8
Nov	105.9	-0.2	-1.6	105.6	-0.2	-0.1	110.0	-0.3	-1.5	86.5	-1.4	-16.9
Dec	105.6	-0.3	-1.4	105.8	0.2	0.1	109.8	-0.2	-1.8	83.1	-3.9	-15.0
2016 Jan	105.5	-0.1	-1.0	105.9	0.1	-	109.9	0.1	-1.7	79.5	-4.3	-11.3
Feb	105.6p	0.1	-1.1	106.0p	0.1	0.1	110.1p	0.2	-1.4	79.8p	0.4	-12.4
Mar	105.9p	0.3	-0.9	106.1p	0.1	0.2	110.4p	0.3	-1.5	82.0p	2.8	-11.9

p = provisional
r = revised

Source: Office for National Statistics

2 Net Sector Input Prices, including Climate Change Levy¹: summary (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

	All manufacturing (materials and fuel purchased)			Materials purchased by manufacturing industry			Fuel purchased by manufacturing industry		
	Index (2010=100)	percentage change over		Index (2010=100)	percentage change over		Index (2010=100)	percentage change over	
		1 mth	12 mths		1 mth	12 mths		1 mth	12 mths
		6207000050			6207000010			6207000060	
	K646			K644			K647		
2015 Sep	93.1	0.5	-13.4	90.8	0.6	-14.7	113.2	1.5	-3.8
Oct	93.1	-	-12.3	90.7	-0.1	-13.0	113.9	0.6	-6.9
Nov	91.6	-1.6	-13.1	89.0	-1.9	-13.6	114.3	0.4	-10.2
Dec	91.3	-0.3	-10.4	88.2	-0.9	-11.0	118.4	3.6	-6.1
2016 Jan	90.2	-1.2	-8.1	87.4	-0.9	-8.3	113.3	-4.3	-7.9
Feb	90.3p	0.1	-8.2	87.6p	0.2	-8.3	113.6p	0.3	-7.5
Mar	92.1p	2.0	-6.5	89.6p	2.3	-6.5	113.5p	-0.1	-7.0

1 The Climate Change Levy was introduced in April 2001.

Source: Office for National Statistics

p = provisional
r = revised

3 Net Sector Output Prices (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

	Output of manufactured products			All manufacturing excluding food, beverages, tobacco and petroleum			All manufacturing, excluding duty ¹		
	Index (2010=100)	percentage change over		Index (2010=100)	percentage change over		Index (2010 = 100)	percentage change over	
		1 month	12 months		1 month	12 months		1 month	12 months
	7200700000			7200799000			7200700010		
	JVZ7			K3BI			JVZ8		
2012 Sep	107.5	0.3	1.8	104.1	0.1	0.5	107.1	0.3	1.5
Oct	107.6	0.1	1.9	104.1	-	0.6	107.2	0.1	1.7
Nov	107.4	-0.2	1.5	104.1	-	0.7	107.2	-	1.6
Dec	107.2	-0.2	1.4	103.9	-0.2	0.4	107.0	-0.2	1.4
2013 Jan	107.6	0.4	1.6	104.2	0.3	0.8	107.4	0.4	1.6
Feb	108.1	0.5	1.7	104.4	0.2	0.7	107.9	0.5	1.7
Mar	108.4	0.3	1.5	104.7	0.3	0.9	108.2	0.3	1.5
Apr	108.3	-0.1	1.0	104.8	0.1	0.8	108.2	-	1.4
May	108.3	-	1.2	104.8	-	0.8	108.2	-	1.5
Jun	108.4	0.1	1.7	104.8	-	0.9	108.3	0.1	2.0
Jul	108.7	0.3	1.8	104.9	0.1	0.9	108.5	0.2	2.0
Aug	108.8	0.1	1.5	104.9	-	0.9	108.6	0.1	1.7
Sep	108.8	-	1.2	104.9	-	0.8	108.6	-	1.4
Oct	108.5	-0.3	0.8	104.9	-	0.8	108.4	-0.2	1.1
Nov	108.3	-0.2	0.8	104.8	-0.1	0.7	108.3	-0.1	1.0
Dec	108.3	-	1.0	104.9	0.1	1.0	108.2	-0.1	1.1
2014 Jan	108.6	0.3	0.9	105.4	0.5	1.2	108.5	0.3	1.0
Feb	108.7	0.1	0.6	105.6	0.2	1.1	108.6	0.1	0.6
Mar	108.8	0.1	0.4	105.8	0.2	1.1	108.9	0.3	0.6
Apr	108.9	0.1	0.6	105.8	-	1.0	108.9	-	0.6
May	108.8	-0.1	0.5	105.8	-	1.0	108.8	-0.1	0.6
Jun	108.7	-0.1	0.3	105.8	-	1.0	108.6	-0.2	0.3
Jul	108.6	-0.1	-0.1	105.7	-0.1	0.8	108.6	-	0.1
Aug	108.5	-0.1	-0.3	105.8	0.1	0.9	108.5	-0.1	-0.1
Sep	108.3	-0.2	-0.5	105.7	-0.1	0.8	108.4	-0.1	-0.2
Oct	107.7	-0.6	-0.7	105.5	-0.2	0.6	107.9	-0.5	-0.5
Nov	107.6	-0.1	-0.6	105.7	0.2	0.9	107.8	-0.1	-0.5
Dec	107.1	-0.5	-1.1	105.7	-	0.8	107.3	-0.5	-0.8
2015 Jan	106.6	-0.5	-1.8	105.9	0.2	0.5	107.0	-0.3	-1.4
Feb	106.8	0.2	-1.7	105.9	-	0.3	107.1	0.1	-1.4
Mar	106.9	0.1	-1.7	105.9	-	0.1	107.3	0.2	-1.5
Apr	107.0	0.1	-1.7	105.9	-	0.1	107.4	0.1	-1.4
May	107.1	0.1	-1.6	105.9	-	0.1	107.4	-	-1.3
Jun	107.1	-	-1.5	105.9	-	0.1	107.4	-	-1.1
Jul	106.9	-0.2	-1.6	105.9	-	0.2	107.3	-0.1	-1.2
Aug	106.4	-0.5	-1.9	105.8	-0.1	-	106.8	-0.5	-1.6
Sep	106.3	-0.1	-1.8	105.9	0.1	0.2	106.7	-0.1	-1.6
Oct	106.1	-0.2	-1.5	105.8	-0.1	0.3	106.5	-0.2	-1.3
Nov	105.9	-0.2	-1.6	105.6	-0.2	-0.1	106.3	-0.2	-1.4
Dec	105.6	-0.3	-1.4	105.8	0.2	0.1	106.1	-0.2	-1.1
2016 Jan	105.5	-0.1	-1.0	105.9	0.1	-	106.1	-	-0.8
Feb	105.6p	0.1	-1.1	106.0p	0.1	0.1	106.1p	-	-0.9
Mar	105.9p	0.3	-0.9	106.1p	0.1	0.2	106.4p	0.3	-0.8

1 Series JVZ8 excludes excise duties payable on tobacco products, alcoholic liquor and petroleum products.

Source: Office for National Statistics

p = provisional
r = revised

4 Output Prices: Detailed by product (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

								Percentage change		Percentage change	
			2015	2015	2016	2016	2016	1 month		12 months	
			Nov	Dec	Jan	Feb	Mar	2016	2016	2016	2016
			Nov	Dec	Jan	Feb	Mar	Feb	Mar	Feb	Mar
Net sector											
Output of manufactured products	JVZ7	7200700000	105.9	105.6	105.5	105.6p	105.9p	0.1	0.3	-1.1	-0.9
All manufacturing, excluding duty	JVZ8	7200700010	106.3	106.1	106.1	106.1p	106.4p	-	0.3	-0.9	-0.8
All manufacturing, excluding food, beverages, tobacco and petroleum	K3BI	7200799000	105.6	105.8	105.9	106.0p	106.1p	0.1	0.1	0.1	0.2
Gross Sector											
Food products, beverages and tobacco, including duty	K65A	7111101280	110.0	109.8	109.9	110.1p	110.4p	0.2	0.3	-1.4	-1.5
Food products	K37L	7112100000	108.8	108.5	108.6	108.9p	109.2p	0.3	0.3	-1.5	-1.8
Tobacco products, including duty	K37Q	7112120080	146.0	146.0	146.0	146.0p	146.9p	-	0.6	3.9	4.0
Alcoholic beverages, including duty	MC6A	7229110080	109.8B	109.6B	110.1B	110.2pB	110.2pB	0.1	-	-2.2	-1.7
Soft drinks, mineral waters and other bottled waters	JU5C	1107000000	105.4B	105.9B	106.2B	106.5pB	106.3pB	0.3	-0.2	-1.1	-0.3
Textiles	K37R	7112130000	112.5	112.5	112.6	113.4p	113.4p	0.7	-	0.4	0.7
Wearing apparel	K37S	7112140000	112.2	112.3	112.3	112.3p	112.6p	-	0.3	0.2	0.4
Leather and related products	K37T	7112150000	119.4	119.5	119.9	120.5p	120.4p	0.5	-0.1	-2.5	-2.5
Wood and products of wood and cork, except furniture	K37U	7112160000	114.5	114.3	114.1	113.3p	113.9p	-0.7	0.5	-1.8	-1.3
Paper and paper products	K37V	7112170000	105.8	106.4	105.6	105.6p	105.7p	-	0.1	-1.0	-0.3
Printing and recording services	K37W	7112180000	100.5	100.9	99.6	99.5p	99.7p	-0.1	0.2	-0.4	-0.2
Coke and refined petroleum products, including duty	K37Y	7112190080	86.5	83.1	79.5	79.8p	82.0p	0.4	2.8	-12.4	-11.9
Chemicals and chemical products	K37Z	7112200000	99.6	99.2r	99.4	99.2p	98.7p	-0.2	-0.5	-3.4	-3.7
Basic pharmaceutical products and pharmaceutical preparations	K382	7112210000	103.8	103.8	103.9	103.9p	105.1p	-	1.2	0.9	0.8
Rubber and plastic products	K383	7112220000	108.1	108.2	108.0	108.1p	108.1p	0.1	-	0.1	0.3
Other non-metallic mineral products	K384	7112230000	111.7	111.9	113.1	113.1p	113.3p	-	0.2	1.6	1.3
Basic metals	K385	7112240000	87.1	86.3	85.6	85.9p	88.3p	0.4	2.8	-10.1	-7.1
Fabricated metal products, except machinery and equipment	K386	7112250000	105.8	105.6	105.6	105.6p	105.8p	-	0.2	0.4	0.6
Computer, electronic and optical products	K387	7112260000	97.9	97.9	98.1	98.3p	98.3p	0.2	-	0.3	0.4
Electrical equipment	K388	7112270000	103.9	104.2	104.0	104.2p	103.0p	0.2	-1.2	-0.3	-1.4
Machinery and equipment n.e.c.	K389	7112280000	111.5	111.7	112.2	112.3p	112.5p	0.1	0.2	1.1	1.4
Motor vehicles, trailers and semi-trailers	K38A	7112290000	100.2	100.5	101.0	101.2p	101.3p	0.2	0.1	0.4	0.8
Other transport equipment	K38B	7112300000	108.9	109.0	109.4	109.5p	109.7p	0.1	0.2	0.4	1.1
Furniture	K38C	7112310000	109.4	109.5	109.7	109.3p	109.5p	-0.4	0.2	1.5	1.7
Other manufactured goods	K38D	7112320000	108.6	108.4	108.6	108.8p	109.4p	0.2	0.6	0.7	1.7
Repair and installation services of machinery and equipment	K38E	7112330000	117.7	117.8	120.2	120.3p	120.4p	0.1	0.1	4.1	3.4

p = provisional
r = revised

Source: Office for National Statistics

B: These index values are considered less reliable mainly due to lack of market coverage.

5 Net Sector Input Prices, including Climate Change Levy¹: Materials and Fuels purchased - SIC 2007

2010=100, SIC2007

	All manufacturing			All manufacturing excluding food, beverages, tobacco and petroleum industries					
	not seasonally adjusted			not seasonally adjusted			seasonally adjusted		
	Index (2010=100)	percentage change over		Index (2010=100)	percentage change over		Index (2010=100)	percentage change over	
		1 month	12 months		1 month	12 months		1 month	12 months
	6207000050			6207990050			6207998950		
	K646			K655			K658		
2012 Sep	115.0	-0.1	-1.2	107.2	0.1	-3.1	108.2	0.2	-3.0
Oct	115.6	0.5	-0.2	108.0	0.7	-2.1	108.6	0.4	-2.1
Nov	116.0	0.3	-0.2	108.6	0.6	-1.6	108.9	0.3	-1.7
Dec	116.3	0.3	0.4	108.7	0.1	-1.2	108.9	-	-1.0
2013 Jan	117.7	1.2	1.6	109.9	1.1	-0.2	109.6	0.6	-
Feb	120.7	2.5	2.0	112.1	2.0	1.0	111.2	1.5	1.1
Mar	120.9	0.2	0.9	112.7	0.5	1.6	111.3	0.1	1.7
Apr	118.6	-1.9	0.3	111.1	-1.4	0.9	110.4	-0.8	1.0
May	117.1	-1.3	1.4	109.3	-1.6	0.4	109.2	-1.1	0.6
Jun	116.8	-0.3	3.0	108.4	-0.8	-	108.9	-0.3	0.1
Jul	118.4	1.4	4.7	109.5	1.0	2.1	110.1	1.1	1.9
Aug	117.2	-1.0	1.8	108.6	-0.8	1.4	109.5	-0.5	1.4
Sep	116.1	-0.9	1.0	107.6	-0.9	0.4	108.5	-0.9	0.3
Oct	115.6	-0.4	-	107.8	0.2	-0.2	108.2	-0.3	-0.4
Nov	114.9	-0.6	-0.9	107.5	-0.3	-1.0	107.7	-0.5	-1.1
Dec	115.3	0.3	-0.9	107.2	-0.3	-1.4	107.2	-0.5	-1.6
2014 Jan	114.3	-0.9	-2.9	106.8	-0.4	-2.8	103.2	-3.7	-5.8
Feb	113.7	-0.5	-5.8	106.4	-0.4	-5.1	105.8	2.5	-4.9
Mar	113.3	-0.4	-6.3	106.6	0.2	-5.4	105.4	-0.4	-5.3
Apr	112.3	-0.9	-5.3	105.5	-1.0	-5.0	105.1	-0.3	-4.8
May	112.5	0.2	-3.9	105.0	-0.5	-3.9	105.1	-	-3.8
Jun	111.4	-1.0	-4.6	104.6	-0.4	-3.5	105.1	-	-3.5
Jul	109.5	-1.7	-7.5	103.8	-0.8	-5.2	104.8	-0.3	-4.8
Aug	108.4	-1.0	-7.5	104.3	0.5	-4.0	105.1	0.3	-4.0
Sep	107.5	-0.8	-7.4	104.7	0.4	-2.7	105.5	0.4	-2.8
Oct	106.2	-1.2	-8.1	105.2	0.5	-2.4	105.3	-0.2	-2.7
Nov	105.4	-0.8	-8.3	105.7	0.5	-1.7	105.4	0.1	-2.1
Dec	101.9	-3.3	-11.6	104.7	-0.9	-2.3	104.5	-0.9	-2.5
2015 Jan	98.2	-3.6	-14.1	103.4	-1.2	-3.2	103.2	-1.2	-
Feb	98.4	0.2	-13.5	102.1	-1.3	-4.0	101.6	-1.6	-4.0
Mar	98.5	0.1	-13.1	101.9	-0.2	-4.4	100.9	-0.7	-4.3
Apr	99.8	1.3	-11.1	101.5	-0.4	-3.8	101.0	0.1	-3.9
May	99.1	-0.7	-11.9	100.8	-0.7	-4.0	100.8	-0.2	-4.1
Jun	96.9	-2.2	-13.0	99.9	-0.9	-4.5	100.3	-0.5	-4.6
Jul	95.5	-1.4	-12.8	98.9	-1.0	-4.7	99.7	-0.6	-4.9
Aug	92.6	-3.0	-14.6	97.9	-1.0	-6.1	98.7	-1.0	-6.1
Sep	93.1	0.5	-13.4	98.7	0.8	-5.7	99.4	0.7	-5.8
Oct	93.1	-	-12.3	98.0	-0.7	-6.8	98.1	-1.3	-6.8
Nov	91.6	-1.6	-13.1	96.7	-1.3	-8.5	96.5	-1.6	-8.4
Dec	91.3	-0.3	-10.4	97.8	1.1	-6.6	97.6	1.1	-6.6
2016 Jan	90.2	-1.2	-8.1	98.0	0.2	-5.2	97.8	0.2	-5.2
Feb	90.3p	0.1	-8.2	98.6p	0.6	-3.4	98.2p	0.4	-3.3
Mar	92.1p	2.0	-6.5	99.3p	0.7	-2.6	98.4p	0.2	-2.5

1 The Climate Change Levy was introduced in April 2001.

Source: Office for National Statistics

p = provisional
r = revised

6 Input Prices, excluding Climate Change Levy¹: Materials and Fuels purchased by selected industries (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

			2015 Nov	2015 Dec	2016 Jan	2016 Feb	2016 Mar	% change 1 month		% change 12 months	
								2016 Feb	2016 Mar	2016 Feb	2016 Mar
Gross sector											
Other mining & quarrying products ²	MC3K	6107208000	111.6	111.8	112.2	112.5p	112.8p	0.3	0.3	-0.6	-0.9
Manufacture of food products, beverages, tobacco	MC35	6107110120	106.4	106.5	106.0	106.1p	106.5p	0.1	0.4	-3.0	-2.1
Preserved meat & meat products	MC3V	6107310100	106.8	106.4	106.1	106.1p	107.0p	-	0.8	-3.8	-2.1
Fish, crustaceans, molluscs, fruit & vegetables	MB4X	6107310230	106.3	110.1r	107.6	107.0p	107.2p	-0.6	0.2	-1.4	-1.8
Vegetable & animal oils and fats	MC3W	6107310400	108.4	107.1	107.1	107.7p	107.6p	0.6	-0.1	-6.0	-5.0
Dairy products	MC3X	6107310500	104.5	104.4	103.9	104.0p	104.4p	0.1	0.4	-4.3	-1.8
Grain mill products, starches & starch products	MC3Y	6107310600	106.2	106.2	105.8	105.8p	106.1p	-	0.3	-3.4	-1.7
Bakery & farinaceous products	MC3Z	6107310700	106.5	106.3	106.0	106.3p	106.4p	0.3	0.1	-2.4	-2.4
Other food products	MB4Y	6107310800	105.8	105.7	105.4	105.4p	106.0p	-	0.6	-2.7	-2.2
Animal feeds	MC42	6107310900	107.1	106.7	106.5	106.8p	107.1p	0.3	0.3	-2.9	-2.1
Alcoholic Beverages	MB55	6107411016	105.5	105.6	105.4	105.6p	105.9p	0.2	0.3	-1.9	-1.5
Soft drinks; mineral waters & other bottled waters	MC4D	6107411070	105.4	105.3	105.3	105.3p	105.7p	-	0.4	-1.2	-1.3
Tobacco products	MC3M	6107212000	142.1	142.7	142.3	142.5p	142.6p	0.1	0.1	3.2	3.0
Manufacture of textiles & textile products; clothing	MC36	6107113140	107.8	108.0	108.1	108.7p	108.8p	0.6	0.1	-0.6	-0.4
Textiles	MB4P	6107213000	106.1	106.3r	106.4	106.9p	106.9p	0.5	-	-1.1	-0.9
Wearing apparel	MC3N	6107214000	110.1	110.3	110.6	111.3p	111.5p	0.6	0.2	0.1	0.5
Manufacture of leather & related products	MC3O	6107215000	109.0	108.8r	108.9	109.2p	109.8p	0.3	0.5	-2.2	-2.1
Manufacture of wood & wood products	MC3P	6107216000	109.5	109.6	109.4	109.1p	109.5p	-0.3	0.4	-2.2	-1.8
Manufacture of pulp, paper & paper products, recording media & printing services	MC39	6107117180	104.8	105.5	104.8	105.0p	105.1p	0.2	0.1	-1.6	-1.2
Pulp, paper & paper products	MB4Q	6107217000	104.7	105.6	104.7	104.8p	104.8p	0.1	-	-2.3	-2.0
Printing & recording services	MC3Q	6107218000	104.9	105.4	105.0	105.2p	105.3p	0.2	0.1	-0.8	-0.4
Manufacture of coke & refined petroleum products	MC3R	6107219000	64.7	59.1	53.2	52.5p	58.9p	-1.3	12.2	-31.6	-26.6
Manufacture of chemicals, chemical products & man-made fibres	MC3B	6107120000	97.1	96.6r	96.7	96.6p	96.4p	-0.1	-0.2	-4.6	-4.7
Paints, varnishes & similar coatings, printing ink & mastics	MC43	6107320300	99.6	99.3r	99.7	99.6p	99.1p	-0.1	-0.5	-3.9	-4.0
Soaps, detergents, cleaning & polishing preparations perfumes & toilet preparations	MC44	6107320400	102.5	102.5	102.4	102.6p	102.5p	0.2	-0.1	-1.6	-1.5
Other chemical products	MC45	6107320500	100.4	100.1	99.8	99.8p	100.0p	-	0.2	-4.5	-4.3
Industrial gases; other basic inorganic chemicals; fertilisers & nitrogen compounds	MC4E	6107420910	100.7	100.4	100.4	100.3p	100.2p	-0.1	-0.1	-5.0	-5.2
Petrochemicals & man made fibres	MC4F	6107420920	95.1	94.5r	94.7	94.5p	94.3p	-0.2	-0.2	-5.0	-5.1
Dyes & pigments: pesticides & other agrochemical products	MC4G	6107420930	96.6	96.4	95.4	95.4p	95.0p	-	-0.4	-7.1	-7.3
Manufacture of basic pharmaceutical products & pharmaceutical preparations	MC3S	6107221000	101.1	101.3	101.3	101.4p	101.9p	0.1	0.5	-1.2	-1.0
Manufacture of rubber & plastic products	MB4R	6107222000	99.8	99.7r	99.7	99.7p	99.6p	-	-0.1	-2.4	-2.4
Manufacture of cement, lime & plaster	MC46	6107323560	108.5	108.8	108.7	109.0p	109.3p	0.3	0.3	-1.6	-1.7
Manufacture of glass, refractory, clay, other porcelain, ceramic stone products	MB4Z	6107323990	105.0	105.5r	105.5	105.4p	105.5p	-0.1	0.1	-2.9	-2.8

1 Climate Change Levy is excluded from the detailed industry input index, (see background notes of this Statistical Bulletin for more detail).

Source: Office for National Statistics

2 Indices includes the Aggregate Levy which was introduced in April 2002.

p = provisional
r = revised

6 Input Prices, excluding Climate Change Levy¹: Materials and Fuels purchased by selected industries (not seasonally adjusted) - SIC 2007

continued

2010=100, SIC2007

			2015 Nov	2015 Dec	2016 Jan	2016 Feb	2016 Mar	% change 1 month		% change 12 months	
								2016 Feb	2016 Mar	2016 Feb	2016 Mar
Manufacture of basic metals & fabricated products	MC3F	6107124250	91.8	91.2	90.5	90.9p	92.7p	0.4	2.0	-7.7	-5.7
Basic iron, steel & alloys: tubes, pipes, hollow profiles	MC47	6107324130	87.1	86.4	85.0	85.5p	88.4p	0.6	3.4	-10.8	-7.8
Other basic metals & casting	MB52	6107324450	88.1	86.8	85.7	85.9p	87.9p	0.2	2.3	-11.2	-9.2
Weapons & ammunition	MC48	6107325400	102.6	102.9	102.9	103.1p	103.4p	0.2	0.3	-0.2	0.2
Fabricated metal products, excluding machinery & equipment & weapons & ammunition	MB53	6107325990	94.3	94.0	93.7	94.1p	95.6p	0.4	1.6	-5.7	-3.9
Manufacture of computer, electronic and optical products, electrical equipment	MC3G	6107126270	101.1	101.3	101.7	102.0p	102.2p	0.3	0.2	-0.8	-0.6
Computer, electronic & optical products	MB4S	6107226000	101.9	102.2	102.7	103.1p	103.2p	0.4	0.1	-	-
Electrical equipment	MB4T	6107227000	99.9	99.9	100.1	100.5p	100.7p	0.4	0.2	-1.8	-1.5
Manufacture of machinery & equipment n.e.c	MB4U	6107228000	100.7	100.8	101.0	101.4p	102.1p	0.4	0.7	-1.8	-1.0
Manufacturing of motor vehicles & other transport equipment	MC3I	6107129300	100.0	100.4r	100.9	101.2p	101.5p	0.3	0.3	-0.8	-0.3
Motor vehicles, trailers & semi trailers	MB4V	6107229000	98.2	98.8	99.1	99.3p	99.6p	0.2	0.3	-1.1	-0.6
Ships & boats	MC49	6107330100	104.6	105.0	104.9	105.2p	105.7p	0.3	0.5	-1.0	-0.5
Aircraft & spacecraft & related machinery	MC4A	6107330300	105.9	106.1	107.6	107.9p	108.2p	0.3	0.3	0.4	0.6
Other transport equipment	MB54	6107330990	103.9	103.9	104.1	104.3p	104.1p	0.2	-0.2	-0.2	-0.5
Manufacture of other manufactured goods n.e.c	MC3J	6107131330	104.7	104.9	105.8	106.0p	106.4p	0.2	0.4	-0.6	-0.3
Furniture	MC3T	6107231000	102.6	102.5	102.5	102.5p	103.3p	-	0.8	-2.6	-1.7
Other manufacturing	MB4W	6107232000	102.9	103.0	103.4	103.7p	104.0p	0.3	0.3	-1.0	-0.8
Repair of maintenance of ships & boats	MC4H	6107433150	105.9	106.4	106.3	106.6p	107.0p	0.3	0.4	-0.6	-0.1
Repair & maintenance services of aircraft & spacecraft	MC4I	6107433160	114.5	115.0	118.6	119.1p	119.4p	0.4	0.3	3.2	3.0
Other repair; installation	MB56	6107433990	101.2	101.5	101.8	102.2p	102.4p	0.4	0.2	-0.9	-0.6

1 Climate Change Levy is excluded from the detailed industry input index, (see background notes of this Statistical Bulletin for more detail).

Source: Office for National Statistics

2 Indices includes the Aggregate Levy which was introduced in April 2002.

p = provisional
r = revised

7 Input Prices: detailed by commodity (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

			2015 Nov	2015 Dec	2016 Jan	2016 Feb	2016 Mar	% change 1 month		% change 12 months	
								2016 Feb	2016 Mar	2016 Feb	2016 Mar
Fuel incl. CCL¹	K647	6207000060	114.3	118.4	113.3	113.6p	113.5p	0.3	-0.1	-7.5	-7.0
Domestic coal & lignite incl. CCL	MC78	7167205005	136.6	124.0	124.5	128.0p	125.5p	2.8	-2.0	-1.9	-16.5
Imported coal & lignite incl. CCL	MC8U	7169205005	72.3	84.0	58.5	66.9p	69.4p	14.4	3.7	-14.7	-6.3
Electricity incl. CCL	MC8F	7167335105	117.0	120.6	115.6	116.7p	117.1p	1.0	0.3	-0.5	0.8
Gas incl. CCL	MC8H	7167335235	109.8	115.1	110.4	108.9p	108.0p	-1.4	-0.8	-17.9	-18.0
Fuel excl. CCL	K645	6207000020	114.0	118.2	113.0	112.9p	112.9p	-0.1	-	-8.1	-7.5
Domestic coal & lignite excl. CCL	MC77	7167205000	138.9	124.9	125.5	129.3p	126.5p	3.0	-2.2	-2.0	-17.9
Imported coal & lignite excl. CCL	MC8T	7169205000	71.4	83.3	57.4	66.0p	68.6p	15.0	3.9	-15.2	-6.4
Electricity excl. CCL	MC8E	7167335100	117.1	120.9	115.6	116.8p	117.3p	1.0	0.4	-1.2	0.3
Gas excl. CCL	MC8G	7167335230	109.4	114.7	109.8	107.3p	106.6p	-2.3	-0.7	-18.7	-18.8
Crude petroleum oils & metal ores	MC4P	6207008700	59.2	53.1	46.8	45.8p	53.0p	-2.1	15.7	-37.0	-30.6
Domestic crude oil & metal ores	MC79	7167206070	56.0	49.2	43.4	42.7p	50.4p	-1.6	18.0	-40.9	-31.1
Imported crude oil & metal ores	MC8V	7169206070	60.7	54.9	48.4	47.2p	54.2p	-2.5	14.8	-35.3	-30.5
Food manufacturing:											
Home produced food materials	MB57	6207008100	101.0	101.7	99.9	99.6p	100.0p	-0.3	0.4	-6.1	-3.7
Agricultural crop products	MC74	7167201000	101.1	100.5	99.5	99.5p	100.0p	-	0.5	-6.7	-3.6
Fish & other fish products	MC76	7167203000	99.2r	119.4r	105.3	101.0p	101.5p	-4.1	0.5	3.6	-3.1
Imported food materials	MC4O	6207008600	108.2	107.6	108.7	108.5p	109.0p	-0.2	0.5	-3.1	-1.3
Agricultural crop products	MC8Q	7169201000	118.5	119.8	121.8	120.9p	122.5p	-0.7	1.3	0.2	6.9
Fish & fish products	MC8S	7169203000	126.0	128.3	133.4	135.4p	135.5p	1.5	0.1	7.1	6.4
Meat & meat products	MC9F	7169310100	96.9	94.2	91.7	92.8p	92.7p	1.2	-0.1	-6.1	-9.8
Processed fish & fish products; fruit & vegetables	MC9G	7169310230	113.7	114.3	116.6	117.2p	116.1p	0.5	-0.9	-1.5	-3.3
Vegetable, animal oils & fats	MC9H	7169310400	87.6	83.7	87.3	86.2p	85.8p	-1.3	-0.5	-14.2	-13.8
Dairy products	MC9I	7169310500	96.4	93.8	93.2	94.1p	94.0p	1.0	-0.1	-4.1	-6.8
Grain mill products & starches	MC9J	7169310600	105.4	103.4r	103.4	104.0p	103.6p	0.6	-0.4	-4.8	-7.2
Bakery & farinaceous products	MC9K	7169310700	99.9	97.3	96.8	97.6p	97.5p	0.8	-0.1	-4.3	-6.9
Other food products	MC9L	7169310800	103.6	101.8r	101.7	102.1p	101.7p	0.4	-0.4	-4.2	-6.5
Prepared animal feeds	MC9M	7169310900	100.6	98.3	98.0	98.8p	98.5p	0.8	-0.3	-4.4	-7.1
Other home produced materials	MC4J	6207008200	118.3	117.9	118.2	118.1p	118.3p	-0.1	0.2	-0.1	-0.3
Forestry products	MC75	7167202000	153.2	153.2	153.2	153.2p	153.2p	-	-	-1.4	-1.4
Other mining & quarrying products	MC7A	7167208000	116.5	115.9	116.2	116.2p	116.3p	-	0.1	0.9	0.5
Water collection, treatment & supply	MC7R	7167236000	114.8	114.8	114.8	114.8p	114.8p	-	-	-2.1	-2.1
Imported metals	MC4K	6207008300	77.6	77.0	78.3	79.9p	83.2p	2.0	4.1	-13.5	-9.0
Basic iron, steel & ferro alloys, tubes & pipes	MC9S	7169324130	80.1	79.3	80.4	81.4p	86.5p	1.2	6.3	-12.8	-6.1
Other basic metals & casting	MC9T	7169324450	76.3	75.8	77.2	79.1p	81.6p	2.5	3.2	-14.0	-10.4
Imported chemicals	MC4L	6207008400	98.0	98.8	100.1	100.2p	99.8p	0.1	-0.4	-1.8	-1.5
Paints, varnishes & coatings, printing inks & other mastics	MC9N	7169320300	93.4	95.0	96.2	97.5p	97.9p	1.4	0.4	-0.3	1.8
Soap, detergents, cleaning & polishing preparations, perfumes & toilet preparations	MC9O	7169320400	92.4	92.3	93.7	94.3p	94.8p	0.6	0.5	-4.4	-3.0

1 The Climate Change Levy was introduced in April 2001.

Source: Office for National Statistics

p = provisional
r = revised

7 Input Prices: detailed by commodity (not seasonally adjusted) - SIC 2007

continued

2010=100, SIC2007

			2015 Nov	2015 Dec	2016 Jan	2016 Feb	2016 Mar	% change 1 month		% change 12 months	
								2016 Feb	2016 Mar	2016 Feb	2016 Mar
Other chemical products	MC9P	7169320500	98.7	99.4	100.4	101.1p	100.8p	0.7	-0.3	-3.0	-2.4
Industrial gases, inorganic chemicals, fertilisers & nitrogen compounds	MCA3	7169420910	102.6	102.7	104.8	103.3p	103.2p	-1.4	-0.1	-11.4	-9.5
Petrochemicals & man made fibres	MCA4	7169420920	95.0	95.9	97.3	97.3p	96.8p	-	-0.5	-0.2	-0.3
Dyes & pigments; pesticides & other agro-chemical products	MCA5	7169420930	97.4	99.0	101.8	103.1p	105.8p	1.3	2.6	2.1	6.7
Basic pharmaceutical products & pharmaceutical preparations	MC97	7169221000	91.1	91.9	93.1	93.6p	93.7p	0.5	0.1	-0.1	0.8
Rubber & plastic products	MC98	7169222000	107.2	107.7	108.4	108.9p	107.8p	0.5	-1.0	-1.4	-2.2
Other imported parts & equipment	MC4N	6207008520	94.5	96.2	97.7	98.5p	98.7p	0.8	0.2	2.1	2.2
Computer, electronic & optical products	MC99	7169226000	111.6	112.5	114.8	115.9p	116.1p	1.0	0.2	4.2	3.3
Electrical equipment	MC9A	7169227000	98.6	99.9r	102.8	104.4p	104.5p	1.6	0.1	2.9	3.3
Machinery & equipment n.e.c	MC9B	7169228000	97.6	98.9	101.5	102.8p	103.2p	1.3	0.4	2.5	3.6
Motor vehicles, trailers & semi-trailers	MC9C	7169229000	89.0	93.3	92.5	92.3p	91.6p	-0.2	-0.8	1.0	-0.1
Weapons & ammunition	MC9U	7169325400	75.9	76.3	77.6	78.6p	79.5p	1.3	1.1	2.6	4.1
Fabricated metal products	MC9V	7169325990	74.3	74.6	75.9	77.1p	78.0p	1.6	1.2	2.7	4.0
Ships & boats	MC9W	7169330100	105.0	105.2	105.3	105.5p	105.6p	0.2	0.1	-0.2	0.1
Aircraft, spacecraft & related machinery	MC9X	7169330300	99.5	100.1	101.7	102.0p	102.1p	0.3	0.1	-3.4	-3.3
Other transport equipment	MC9Y	7169330990	100.8	101.2	102.2	102.5p	102.6p	0.3	0.1	-2.0	-1.2
Other imports	MC4M	6207008510	103.4	104.7	106.7	107.8p	108.1p	1.0	0.3	2.6	2.0
Forestry products	MC8R	7169202000	110.1	108.8	109.3	111.0p	111.4p	1.6	0.4	-4.3	-5.6
Other mining & quarrying products	MC8W	7169208000	123.4	125.0	130.0	131.2p	131.3p	0.9	0.1	1.2	0.2
Tobacco products	MC8X	7169212000	82.3	87.5	90.2	92.3p	92.8p	2.3	0.5	-1.5	1.2
Textiles	MC8Y	7169213000	106.4	107.3	109.8	111.3p	111.7p	1.4	0.4	1.6	1.8
Wearing apparel	MC8Z	7169214000	103.3	105.9	109.8	110.8p	111.5p	0.9	0.6	6.7	8.6
Leather & related leather products	MC92	7169215000	106.5	107.5	108.5	109.5p	109.6p	0.9	0.1	3.4	4.5
Wood & wooden products	MC93	7169216000	96.5	96.8	98.1	97.7p	98.1p	-0.4	0.4	-4.1	-3.4
Paper & paper products	MC94	7169217000	97.6	99.2	98.9	99.6p	99.8p	0.7	0.2	-0.6	-0.2
Printing & recording services	MC95	7169218000	88.4	90.2	92.9	94.9p	95.8p	2.2	0.9	2.3	4.7
Coke & refined petroleum products	MC96	7169219000	119.3	121.9	126.7	129.1p	129.6p	1.9	0.4	15.6	10.4
Furniture	MC9D	7169231000	57.1	57.3	57.8	58.6p	58.9p	1.4	0.5	-3.6	-2.8
Glass, refractory, clay other porcelain, ceramic stone & abrasive products	MC9R	7169323990	99.2	100.6	103.1	105.0p	105.4p	1.8	0.4	3.8	5.1
Cement, lime, plaster & articles of concrete, cement & plaster	MC9Q	7169323560	99.1	100.5	103.0	104.9p	105.2p	1.8	0.3	3.8	5.0
Alcoholic beverages	MC9Z	7169411016	91.5	93.4	98.5	100.7p	101.3p	2.2	0.6	5.9	8.0
Soft drinks, mineral water & other bottled waters	MCA2	7169411070	96.3	99.0	105.4	108.3p	109.0p	2.8	0.6	6.8	9.9
Other manufactured goods n.e.c	MC9E	7169232000	99.1	99.1r	101.6	102.6p	102.9p	1.0	0.3	0.7	0.1
Imported materials											
All imported materials - total (incl Crude Oil)	K64F	6207008500	88.9	88.4	88.2	88.5p	90.4p	0.3	2.1	-6.8	-5.5

1 The Climate Change Levy was introduced in April 2001.

Source: Office for National Statistics

p = provisional
r = revised

8R Output Prices: revisions (not seasonally adjusted) - SIC 2007

2010=100, SIC2007

	Output of manufactured products			All manufacturing excluding food, beverages, tobacco and petroleum		
	Index (2010=100)	percentage change over		Index (2010=100)	percentage change over	
		1 month	12 months		1 month	12 months
	7200700000			7200799000		
	JVZ7			K3BI		
2012 Sep	-	-	-	-	-	-
Oct	-	-	-	-	-	-
Nov	-	-	-	-	-	-
Dec	-	-	-	-	-	-
2013 Jan	-	-	-	-	-	-
Feb	-	-	-	-	-	-
Mar	-	-	-	-	-	-
Apr	-	-	-	-	-	-
May	-	-	-	-	-	-
Jun	-	-	-	-	-	-
Jul	-	-	-	-	-	-
Aug	-	-	-	-	-	-
Sep	-	-	-	-	-	-
Oct	-	-	-	-	-	-
Nov	-	-	-	-	-	-
Dec	-	-	-	-	-	-
2014 Jan	-	-	-	-	-	-
Feb	-	-	-	-	-	-
Mar	-	-	-	-	-	-
Apr	-	-	-	-	-	-
May	-	-	-	-	-	-
Jun	-	-	-	-	-	-
Jul	-	-	-	-	-	-
Aug	-	-	-	-	-	-
Sep	-	-	-	-	-	-
Oct	-	-	-	-	-	-
Nov	-	-	-	-	-	-
Dec	-	-	-	-	-	-
2015 Jan	-	-	-	-	-	-
Feb	-	-	-	-	-	-
Mar	-	-	-	-	-	-
Apr	-	-	-	-	-	-
May	-	-	-	-	-	-
Jun	-	-	-	-	-	-
Jul	-	-	-	-	-	-
Aug	-	-	-	-	-	-
Sep	-	-	-	-	-	-
Oct	-	-	-	-	-	-
Nov	-	-	-	-	-	-
Dec	-	-	-	-	-	-
2016 Jan	-	-	-	-	-	-
Feb	-	-	-	-0.1	-0.1	-0.1
Mar	..	..	..	..	..	..

Please see Statistical Bulletin section entitled 'Revisions' for further information.

Source: Office for National Statistics

9R Net Sector Input Prices, including Climate Change Levy¹: revisions - SIC 2007

2010=100, SIC2007

	All manufacturing industries			All manufacturing excluding food, beverages, tobacco and petroleum industries					
	not seasonally adjusted			not seasonally adjusted			seasonally adjusted		
	Index (2010=100)	percentage change over		Index (2010=100)	percentage change over		Index (2010=100)	percentage change over	
		1 month	12 months		1 month	12 months		1 month	12 months
	6207000050 K646			6207990050 K655			6207998950 K658		
2012 Sep	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-
2013 Jan	-	-	-	-	-	-	-	-	-
Feb	-	-	-	-	-	-	-	-	-
Mar	-	-	-	-	-	-	-	-	-
Apr	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-
Jun	-	-	-	-	-	-	-	-	-
Jul	-	-	-	-	-	-	-	-	-
Aug	-	-	-	-	-	-	-	-	-
Sep	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-
2014 Jan	-	-	-	-	-	-	-	-	-
Feb	-	-	-	-	-	-	-	-	-
Mar	-	-	-	-	-	-	-	-	-
Apr	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-
Jun	-	-	-	-	-	-	-	-	-
Jul	-	-	-	-	-	-	-	-	-
Aug	-	-	-	-	-	-	-	-	-
Sep	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-
2015 Jan	-	-	-	-	-	-	-	-	-
Feb	-	-	-	-	-	-	-	-	-
Mar	-	-	-	-	-	-	-	-	-
Apr	-	-	-	-	-	-	-	-	-
May	-	-	-	-	-	-	-	-	-
Jun	-	-	-	-	-	-	-	-	-
Jul	-	-	-	-	-	-	-	-	-
Aug	-	-	-	-	-	-	-	-	-
Sep	-	-	-	-	-	-	-	-	-
Oct	-	-	-	-	-	-	-	-	-
Nov	-	-	-	-	-	-	-	-	-
Dec	-	-	-	-	-	-	-	-	-
2016 Jan	-0.1	-0.1	-0.1	-0.1	-0.1	-0.1	-	-	-
Feb	-0.1	-	-0.1	-	0.1	-	-	-	-
Mar	..	..	..	..	..	..	..	..	..

¹ The Climate Change levy was introduced in April 2001.
Please see Statistical Bulletin section entitled 'Revisions' for further information.

Source: Office for National Statistics