



Index of Production and Index of Construction for Wales: 2017 Quarter 1

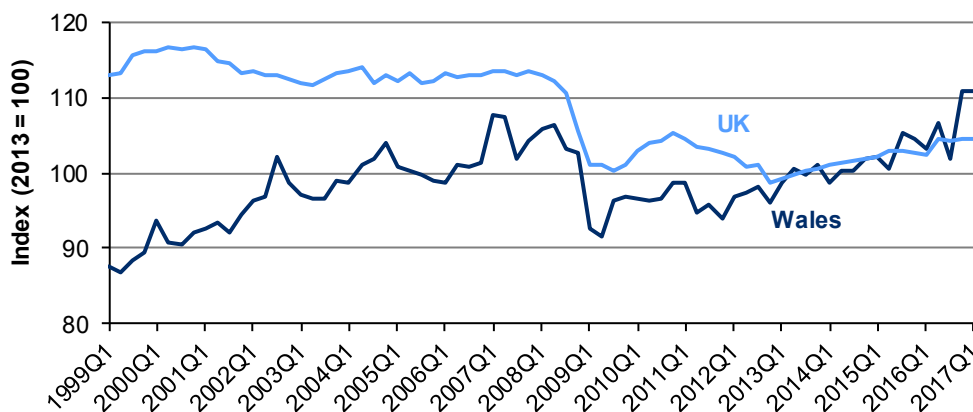
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1. Background and key points

The Index of Production and the Index of Construction for Wales account for approximately 21.4 per cent and 5.9 per cent of the Welsh economy respectively. The Welsh Government also publishes a Welsh [Index of Market Services](#) quarterly statistical release which accounts for a further 45.8 per cent of the Welsh economy.

When comparing the year ending March 2017 to the year ending March 2016, the Index of Production **increased** for both Wales (4.1 per cent) and the UK (1.7 per cent). The increase in Wales was largely accounted for by an increase in output in *Other Manufacturing and Repair* and *Rubber and Plastics and other Non-metallic Minerals*, whilst the increase in the UK was largely accounted for by *Transport Equipment*. When comparing the current quarter with the previous quarter, output **decreased** in Wales (down 0.1 per cent) however increased in the UK (up 0.1 per cent).

Chart 1.1: Index of Production



Source: Short-term output indicators. WG and ONS

Source: Short Term Output Indicators, Welsh Government and ONS

The Index of Construction for Wales **increased** by 6.6 per cent when comparing the year ending March 2017 to the year ending March 2016 whilst UK output increased by 2.6 per cent. When comparing the current quarter with the previous quarter, construction industry output **decreased** in Wales by 2.1 per cent but **increased** in the UK by 1.1 per cent.

About this release

The Index of Production for Wales and the Index of Construction for Wales are quarterly indices showing short term movements in the output of companies in the production and construction sectors within Wales. This release includes data up to March 2017.

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The Index of Production and the Index of Construction are two separate indices. The Index of Production covers sections B to E of the 2007 Standard Industrial Classification and the Index of Construction covers Section F:

- Section B: Mining and Quarrying
- Section C: Manufacturing
- Section D: Electricity, Gas, Steam and Air Conditioning Supply
- Section E: Water Supply; Sewerage, Waste Management and Remediation Activities
- Section F: Construction

The Index of Production is composed of three sub-indices, the largest of which is *Manufacturing* which accounts for 78.9 per cent. *Electricity, Gas and Water Supply* accounts for 19.3 per cent and *Mining and Quarrying* for 1.9 per cent.

The largest components within *Manufacturing* are *Other Manufacturing and Repair* and *Transport Equipment*, accounting for 14.9 per cent and 14.6 per cent of the Index of Production respectively. The smallest component within *Manufacturing* is *Textiles, Wearing Apparel & Leather* (1.5 per cent). For further information on the industry sections and sub-sectors see Appendix A.

Table 1.1 shows the Index of Production and Index of Construction for Wales. Percentage changes are provided to show the longer term trend (comparing the latest four quarters with the same period a year earlier) and the short term trend (showing the latest quarterly movement) for both Wales and the UK.

Table 1.1: Seasonally adjusted indices of output for Wales ⁽¹⁾

(2013=100)

							Percentage change: Latest			
	2015		2016			2017	4 qtrs to previous 4 qtrs		qtr to previous qtr	
	Q4	Q1	Q2	Q3	Q4	Q1	Wales	UK ⁽²⁾	Wales	UK ⁽²⁾
PRODUCTION	104.5 (r)	103.2 (r)	106.8 (r)	101.9 (r)	111.0 (r)	111.0	4.1	1.7	-0.1	0.1
Manufacturing	107.4 (r)	105.1 (r)	109.1 (r)	104.6 (r)	112.4 (r)	113.9	4.3	1.7	1.3	0.3
Mining and Quarrying	84.4 (r)	82.2 (r)	82.8 (r)	96.8 (r)	104.1 (r)	74.5	6.1	-0.2	-28.4	1.5
Electricity, Gas and Water Supply ⁽³⁾	94.4 (r)	97.5	99.8	91.3 (r)	106.0 (r)	102.7	3.3	3.6	-3.0	-1.8
CONSTRUCTION	105.8 (r)	107.9 (r)	111.1 (r)	110.1 (r)	112.6 (r)	110.2	6.6	2.6	-2.1	1.1

Source: Short Term Output Indicators, Welsh Government and ONS

(1) All series are seasonally adjusted. Please see Table B1 (Appendix B) for more detail on industrial sectors.

(2) UK figures for production as published by the Office for National Statistics on 30 June 2017 and UK figures for Construction as published by the Office for National Statistics on 9 June 2017.

(3) Relates to SIC 2007 Sections D - Electricity, Gas and Air Conditioning Supply and Section E - Water Supply; Sewerage, Waste Management and Remediation Activities.

(r) Data revised since last publication.

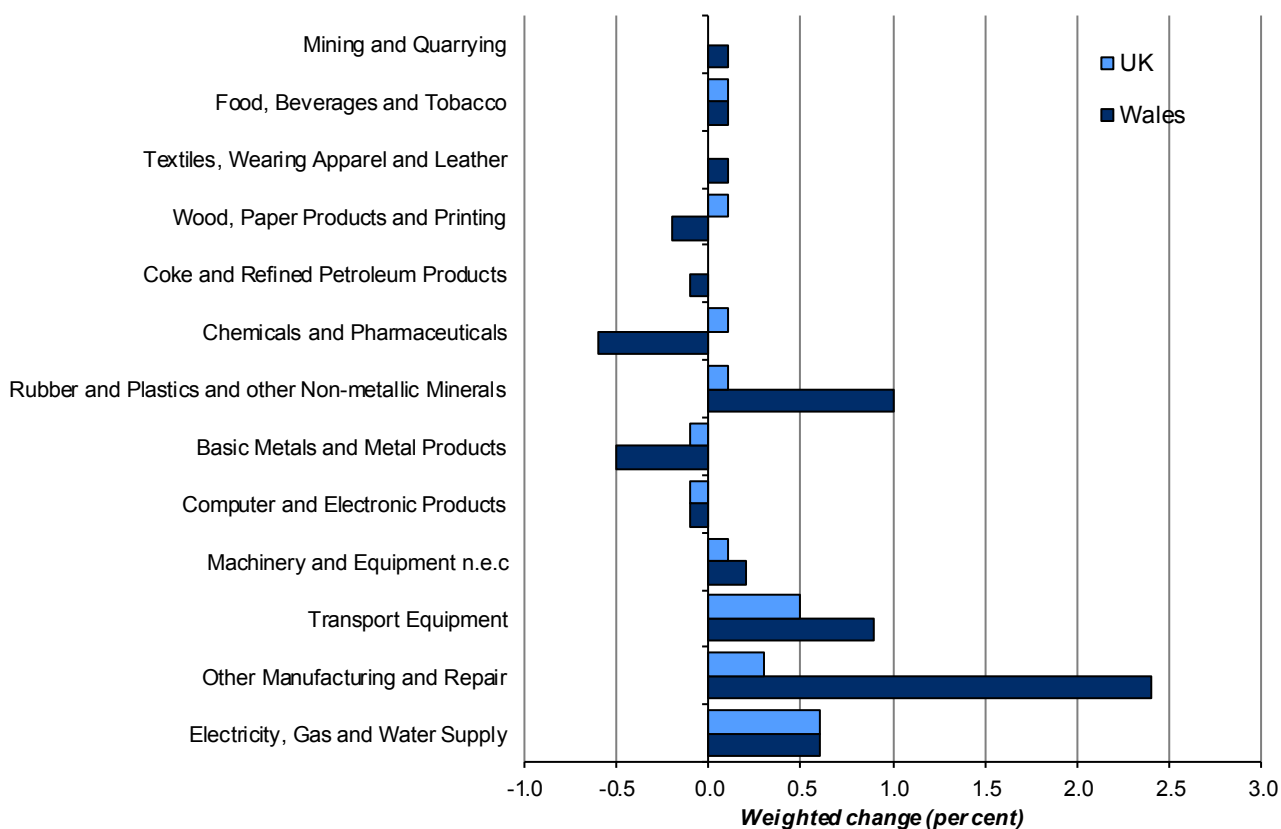
2. Index of Production sector changes

This section examines the outputs of each industry within the Index of Production and their respective impact in proportion to the overall index.

Chart 2.1 shows a comparison of the weighted data for the year ending March 2017 to the year ending March 2016. The changes show the differences between each section's output and their respective impacts in proportion to their weighted contribution within the overall Index of Production. The weighted changes are derived by taking the proportion (weights) of each of the sub-sectors (using the 2013 GVA weights) and multiplying this by the difference in the time periods.

Eight of the thirteen sub-sectors within the Welsh Index of Production have grown in output over the year ending March 2017 and five have declined. *Other Manufacturing and Repair* and *Rubber and Plastics and other Non-metallic Minerals* showed the largest positive weighted change overall in Wales, whilst *Chemicals and Pharmaceuticals* has shown the largest negative weighted change.

Chart 2.1: Contribution to overall percentage change, latest four quarters compared with previous four quarters

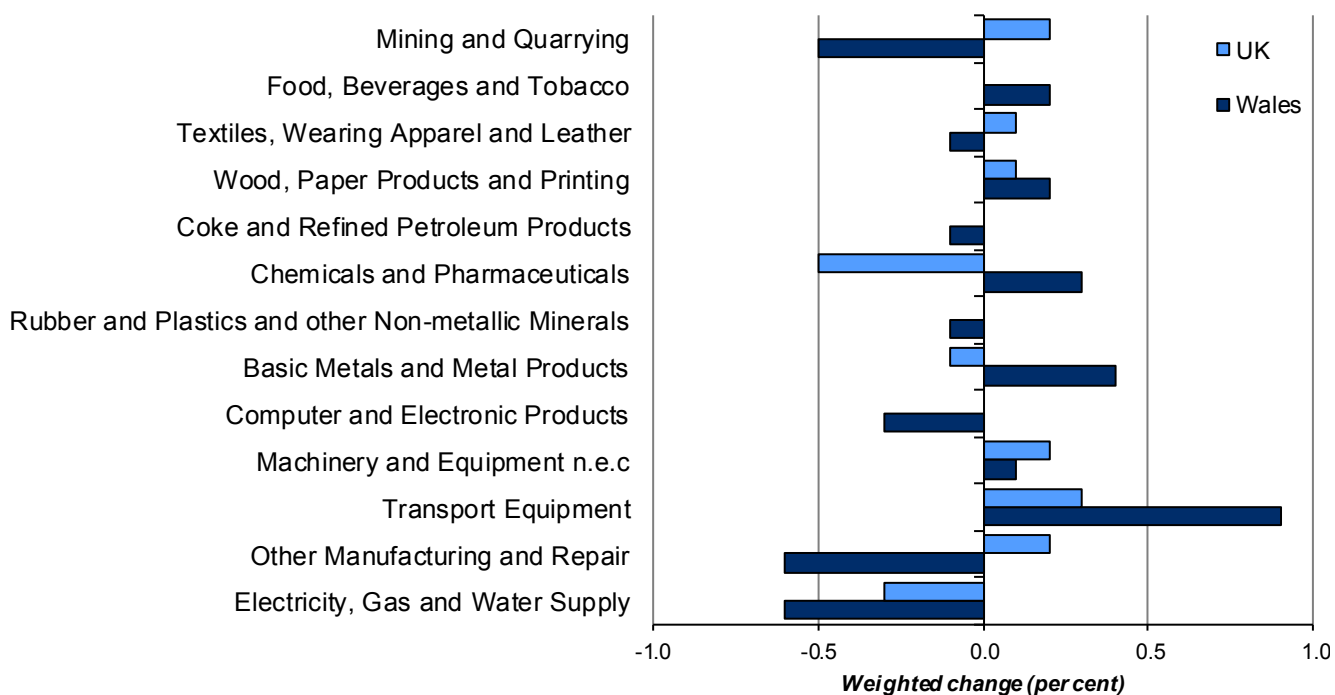


(1) Data rounded to one decimal place

Eight of the thirteen sub-sectors for the UK have grown in output over the year ending March 2017 and two sub-sectors have declined. The contributions of three sub-sectors were unchanged (to one decimal place). *Electricity, Gas and Water Supply* was the sub-sector with the largest positive weighted change in the UK whilst the largest negative change was in *Computer and Electronic Products* and *Basic Metals and Metal Products*.

Chart 2.2 shows a comparison of the weighted data for the current quarter with the previous quarter. Six of the thirteen sub-sectors within the Welsh Index of Production have shown growth over the quarter and seven of the sub-sectors declined. In the UK six of the thirteen sub-sectors showed growth in output, whilst three sub-sector declined and four were unchanged.

Chart 2.2: Contribution to quarterly percentage change, current quarter compared with previous quarter



⁽¹⁾ Data rounded to one decimal place

Source: Short-term Output Indicators, WG and ONS

The *Electricity, Gas and Water Supply* and *Other Manufacturing and Repair* sub-sectors have shown the largest negative weighted change for Wales whilst *Transport Equipment* had the largest positive weighted change. *Chemicals and Pharmaceuticals* had the largest negative weighted change in the UK whilst the largest positive change was in *Transport Equipment*.

3. Results for sub-sectors of Index of Production

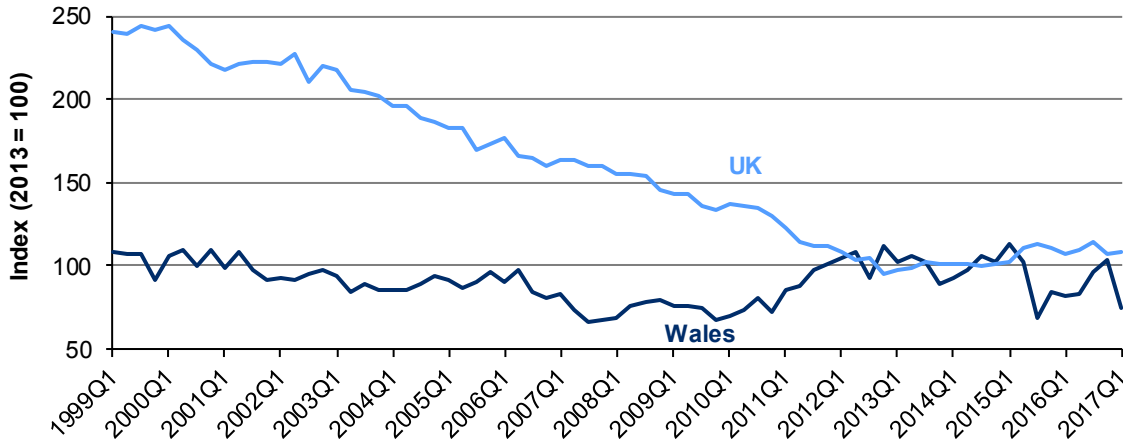
This section shows the latest results for the three sub-indices which comprise the Index of Production. References to the longer term refer to the year ending March 2017 compared to the year ending March 2016 and references to the short term refer to comparisons for the current quarter with the previous quarter. The Welsh results for some data series are more volatile than the UK counterparts because of smaller survey samples.

Table B1 in Appendix B shows the latest data with the percentage change over the short and longer term. Table B2 shows time series for the Index of Production and its sub-indices.

3.1. Index of Mining and Quarrying

The Index of Mining and Quarrying in both Wales and the UK fell overall between 1999 and 2009. It increased in Wales between 2010 and the end of 2012, which was attributed to increases in coal mining in Wales. The index for Wales has since fluctuated and decreased overall. The UK continued to fall to the end of 2012 however has increased slightly since. (Chart 3.1)

Chart 3.1: Index of Mining and Quarrying



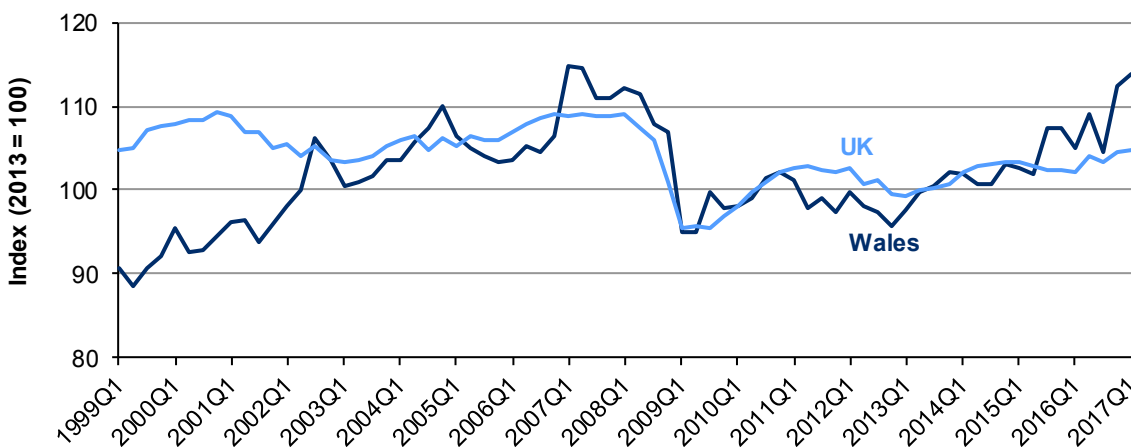
Source: Short-term output indicators, WG and ONS
 Source: Short-term output indicators, WG and ONS

The Index of Mining and Quarrying for Wales increased over the longer term by 6.1 per cent but decreased over the short term by 28.4 per cent. The UK index decreased over the longer term but increased over the short term (down 0.2 per cent and up 1.5 per cent respectively).

3.2. Index of Manufacturing

The Index of Manufacturing in Wales increased overall between the latter part of 2009 (after the recession of 2008-09) and the start of 2011, but did not reach pre-2008 levels. Since 2011, the index has increased overall and is now higher than the 2007 Q4 level. The UK has followed a similar pattern to Wales overall between 2009 and 2014 but during 2015 showed little change and is therefore below the Wales index. (Chart 3.2)

Chart 3.2: Index of Manufacturing



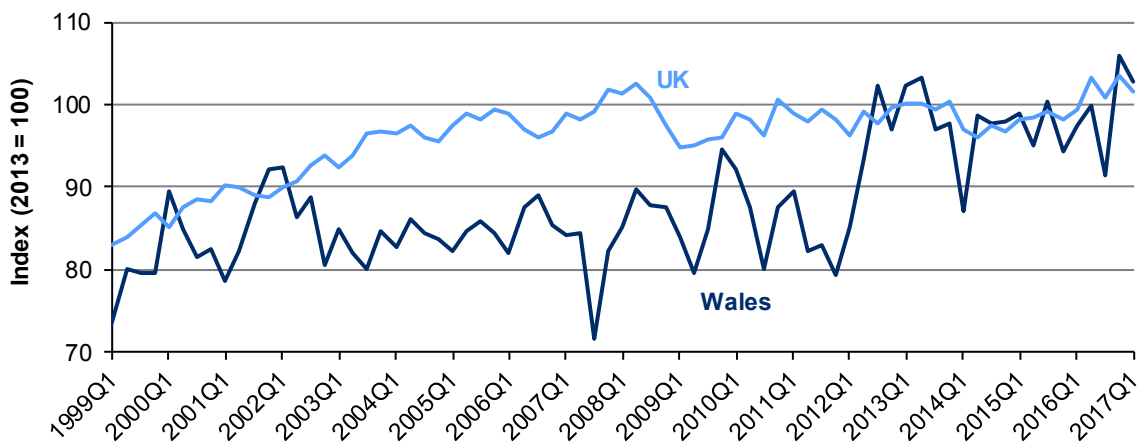
Source: Short-term output indicators, WG and ONS

The manufacturing industry is typically the main driver of the production industries as it accounts for 78.9 per cent of the Index of Production. Manufacturing output over the longer term has increased in Wales and in the UK (up 4.3 per cent and up 1.7 per cent respectively). Over the short term, manufacturing output increased in both Wales and the UK (by 1.3 per cent and 0.3 per cent respectively). Tables B3a-c show a time series for the industry sub-sectors in the Index of Manufacturing.

3.3. Index of Electricity, Gas and Water Supply

The Index of Electricity, Gas and Water Supply in Wales fluctuated between 2006 and 2011. It increased in 2012 quarter 2, mostly due to the opening of a new power station in Pembroke. The output of this power station has continued to impact on this series since although the series has fluctuated. Output in the UK fell between 2008 and 2009 and has been broadly unchanged up to 2015. The UK index increased to its highest point of the series in 2016 but has decreased slightly over the previous quarter. (Chart 3.3)

Chart 3.3: Index of Electricity, Gas and Water Supply



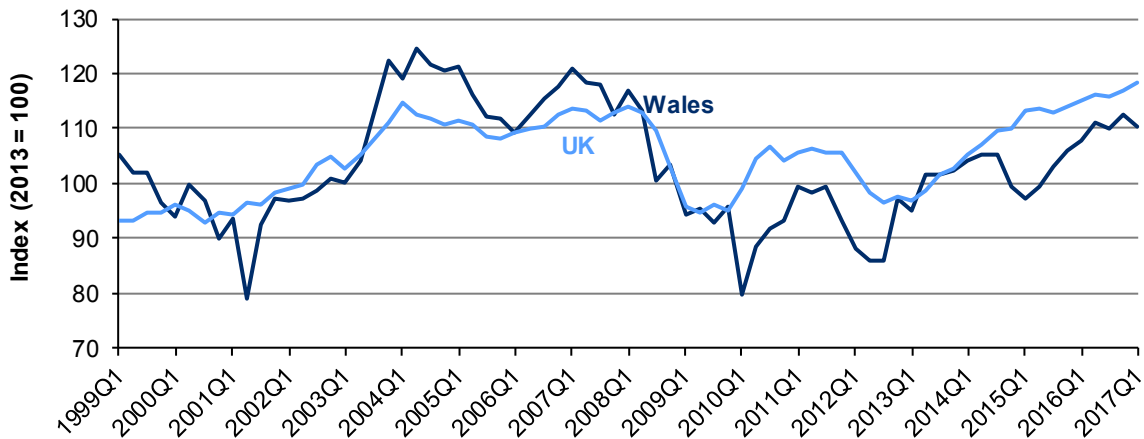
Source: Short-term output indicators, WG and ONS

The Index of Electricity, Gas and Water Supply for Wales and the UK increased over the longer term (up 3.3 per cent and up 3.6 per cent respectively). Output over the short term decreased in both Wales and the UK (down 3.0 per cent and down 1.8 per cent respectively).

4. Index of Construction

From 2008 (around the start of the recession of 2008-09) Wales had larger falls in output than the UK. Since the second quarter of 2010 output in Wales has fluctuated, but has increased overall. The UK increased overall in 2010 and was then broadly unchanged until the end of 2011. Output then fell until the start of 2013 and has increased since. (*Chart 4.1*)

Chart 4.1: Index of Construction



Source: Short-term output indicators, WG and ONS

The Index of Construction for Wales increased over the longer term by 6.6 per cent and decreased over the short term by 2.1 per cent. The UK index increased over the longer term by 2.6 per cent and over the short term by 1.1 per cent. Table B2 shows a time series for the Index of Construction.

5. Key Quality Information

5.1 Relevance

This release provides estimates of output in production and construction industries for Wales and the UK. The UK production estimates are taken from the Quarterly National Accounts release from the ONS. The construction estimates are taken from the ONS monthly construction release. These statistics are used by the Welsh Government to monitor the output for these industries in the Welsh economy as well as providing comparisons with the UK. They are also used by other public sector organisations, businesses, academia and private individuals to identify the key trends in production and construction output for Wales.

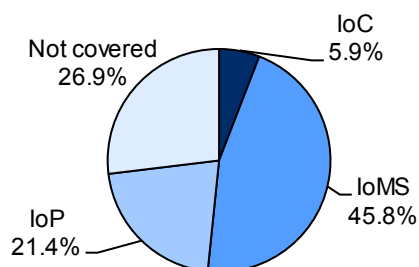
The Index of Production and Index of Construction show the quarterly movements in gross output of the production and construction sectors in Wales. Gross output is used as a proxy for Gross Value Added (GVA), measured by a variety of data sources since GVA cannot currently be measured to a sufficient timeliness for the production of short term indices.

The indices are estimated using a combination of:

- Directly collected data from existing monthly surveys.
- A quarterly top up of specifically Welsh data from large inter-regional businesses.
- Post stratification methodology.
- Volume data from a number of different sources.

The majority of the data comes from the ONS Monthly Business Survey. The results from this survey are used to calculate the relative movements of the individual series and these in turn are weighted together to produce the overall index. The weights are derived from the distribution of GVA for Wales using the Regional Accounts. Both volume and sales data are used to compile the index. GVA is a measure of economic activity at basic prices, which includes taxes (less subsidies) on production but excludes taxes (less subsidies) on products. The sales data are deflated to 2010 prices using the deflators produced for the UK index.

The following pie chart represents the percentage that the Index of Market Services, Index of Production and Index of Construction for Wales have in the overall Regional GVA by industry. Industries not covered include agriculture and fishing industries and the public sector.



Source: Short Term Output Indicators, Welsh Government and ONS

5.2 Accuracy

Estimates are subject to revision. Estimates on individual quarters fluctuate due to random sampling error and therefore it is recommended that emphasis is placed on changes in the average of the latest four quarters compared to the average of the previous four quarters for more volatile series. The entire time series is open to revisions arising from changes in the seasonally adjusted series from the addition of a new data point, and changes to the last 15 months turnover data from late or revised survey returns. [More information on our revisions policy](#).

Table 5.1 shows the revisions made (in index points) to the previous quarter's estimates.

Table 5.1: Comparison of Current and Previous Estimates of 2016 Quarter 4 ^a

	Production	Manufacturing	Mining & Quarrying	Electricity, Gas & Water	Construction
Current	111.0	112.4	104.1	106.0	112.6
Previous	111.3	112.7	109.3	105.7	110.4
<i>Revision</i>	<i>-0.3</i>	<i>-0.3</i>	<i>-5.2</i>	<i>0.3</i>	<i>2.2</i>

Source: Short-term output indicators, WG and ONS

^a Numbers in the table have been rounded to one decimal place, therefore there may be slight discrepancies between the constituent items and the overall revision shown.

5.3 Timeliness and punctuality

This release is published quarterly. It is the earliest official indicator of the performance of the Welsh production and construction industries other than the UK figures which are produced by the Office for National Statistics monthly. There is approximately a 14 week lapse of time between publication and the period to which the release refers to.

5.4 Accessibility and clarity

This First Release and the headline statistics are available on the [Welsh Government Statistics](#) website. Additional information on the Index of Production and Index of Construction is available on [StatsWales](#), in addition to the data from 1998. A Summary Quality Report containing information on the quality of the Index of Production and Index of Construction as well as a summary of methods used to compile the output is available on the background tab on the [Indices of Production and Construction](#) webpage.

5.5 Comparability and coherence

The UK and Wales estimates in this release are calculated by the Office for National Statistics (ONS) and are comparable as they use the same methodology. Methodologies relating to the components within the Index of Production and Index of Construction are available from the background information tab on the release webpage. The ONS are currently developing Regional Short term indicators for English regions. The Scottish Government publish a [GDP](#) measure in place of short-term output indicators. The Northern Ireland Assembly publish the Northern Ireland Composite Economic Index ([NICEI](#)), which is also not directly comparable to the Welsh short term output indicators.

Due to difficulties collecting historical data from contributors from earlier time periods, the time series begins in 1998 but early quarters and initial years include a proportion of estimated data.

More information is given in the Summary Quality Report which can be found on the [background tab here](#).

Throughout the release references to the longer term refer to the latest four quarters compared to the previous four quarters, and references to the short term refer to the current quarter compared to the previous quarter. It is recommended that when looking at the growth rates of volatile series, users should focus on the percentage change over the longer term.

5.6 National Statistics status

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.

National Statistics status means that official statistics meet the highest standards of trustworthiness, quality and public value.

All official statistics should comply with all aspects of the Code of Practice for Official Statistics. They are awarded National Statistics status following an assessment by the UK Statistics Authority's regulatory arm. The Authority considers whether the statistics meet the highest standards of Code compliance, including the value they add to public decisions and debate.

It is Welsh Government's responsibility to maintain compliance with the standards expected of National Statistics. If we become concerned about whether these statistics are still meeting the appropriate standards, we will discuss any concerns with the Authority promptly. National Statistics status can be removed at any point when the highest standards are not maintained, and reinstated when standards are restored.

5.7 Well-being of Future Generations Act (WFG)

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural well-being of Wales. The Act puts in place seven well-being goals for Wales. These are for a more equal, prosperous, resilient, healthier and globally responsible Wales, with cohesive communities and a vibrant culture and thriving Welsh language. Under section (10)(1) of the Act, the Welsh Ministers must (a) publish indicators ("national indicators") that must be applied for the purpose of measuring progress towards the achievement of the Well-being goals, and (b) lay a copy of the national indicators before the National Assembly. The 46 national indicators were laid in March 2016.

Information on indicators and associated technical information - [How do you measure a nation's progress? - National Indicators](#)

Further information on the [Well-being of Future Generations \(Wales\) Act 2015](#).

The statistics included in this release could also provide supporting narrative to the national indicators and be used by public services boards in relation to their local well-being assessments and local well-being plans.

5.8 Further details

Links

This document is available at <http://gov.wales/statistics-and-research/index-production-construction>.

The Index of Market Services is available at <http://gov.wales/statistics-and-research/index-market-services>.

Next update

October 2017 (*Statistical First Release for 2017 Q2*)

We want your feedback

We welcome any feedback on any aspect of these statistics which can be provided by email to economic.stats@gov.wales.

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Appendix A: Sections of Standard Industrial Classification¹ in Index of Production, Index of Construction and Index of Market Services

Table A1: Sections and sub-sections in Index of Production

SIC 2007	Description
B	Mining and Quarrying
C	Manufacturing
CA (10-12)	<i>Food products, beverages and tobacco</i>
CB (13-15)	<i>Textiles, wearing apparel and leather products</i>
CC (16-18)	<i>Wood and paper products, and printing</i>
CD (19)	<i>Coke and refined petroleum products</i>
CECF (20-21)	<i>Chemicals and pharmaceuticals</i>
CG (22-23)	<i>Rubber & plastics products, & other non-metallic minerals</i>
CH (24-25)	<i>Basic metals and metal products</i>
CICJ (26-27)	<i>Computer and electronic products</i>
CK (28)	<i>Machinery and equipment n.e.c.</i>
CL (29-30)	<i>Transport equipment</i>
CM (31-33)	<i>Other manufacturing and repair</i>
CIJKL	<i>Engineering and allied industries</i>
CCGM	<i>Other manufacturing</i>
DE	Electricity, gas and water supply

Table A2: Sections in Index of Construction

SIC 2007	Description
F	Construction

Table A3: Sections and sub-sections in Index of Market Services

SIC 2007	Description
G	Distribution
45	<i>Wholesale and retail trade and repair of motor vehicles and motorcycles</i>
46	<i>Wholesale trade, except of motor vehicles and motorcycles</i>
47	<i>Retail trade, except of motor vehicles and motorcycles</i>
H	Transportation and Storage
49-51	<i>Land, water and air transport</i>
52-53	<i>Warehousing and support activities for transportation; postal and courier activities</i>
I	Accommodation and Food Service Activities
55	<i>Accommodation</i>
56	<i>Food and beverage service activities</i>
J	Information and Communication
JA (58-60)	<i>Publishing, audio-visual and broadcasting activities</i>
JB (61)	<i>Telecommunications</i>
JC (62-63)	<i>Information technology and other information activities</i>
K	Financial and Insurance Activities
L	Real Estate Activities
L x OOD	<i>Real Estate excluding Owner Occupied Dwellings</i>
OOD	<i>Owner Occupied Dwellings</i>
M	Professional, Scientific and Technical Activities
N	Administrative and Support Service Activities
R-T	Other Services

¹ See [UK Standard Industrial Classification of Economic Activities 2007](#) for full category descriptions.

Appendix B: Reference tables

Table B1: Index of Production and Index of Construction for Wales ⁽¹⁾

SEASONALLY ADJUSTED ⁽²⁾ : 2013 = 100

2007 STANDARD INDUSTRIAL CLASSIFICATION		Index	Annual Indices		2015					Percentage change: Latest				
										4 qtrs to		qtr to previous		
Section	DESCRIPTION	Weights ⁽³⁾	2015	2016	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	QTR 1	previous 4 qtrs	UK ⁽⁴⁾	Wales	UK ⁽⁴⁾
B-E	PRODUCTION INDUSTRIES	1000	103.1 (r)	105.7	104.5 (r)	103.2 (r)	106.8 (r)	101.9 (r)	111.0 (r)	111.0	4.1	1.7	-0.1	0.1
B	MINING AND QUARRYING	19	92.3 (r)	91.5	84.4 (r)	82.2 (r)	82.8 (r)	96.8 (r)	104.1 (r)	74.5	6.1	-0.2	-28.4	1.5
C	MANUFACTURING	789	104.9 (r)	107.8	107.4 (r)	105.1 (r)	109.1 (r)	104.6 (r)	112.4 (r)	113.9	4.3	1.7	1.3	0.3
CA	Food, Beverages and Tobacco	145	107.1 (r)	105.6	110.0 (r)	105.6 (r)	100.2 (r)	103.8 (r)	112.8 (r)	114.9	1.1	1.1	1.9	0.2
CB	Textiles, Wearing Apparel and Leather	15	77.0 (r)	81.6	69.1	67.9 (r)	78.3 (r)	89.7 (r)	90.7 (r)	82.4	17.1	-1.4	-9.1	5.5
CC	Wood, Paper Products and Printing	67	85.0 (r)	83.6	85.4 (r)	88.7 (r)	89.1 (r)	79.7	76.7 (r)	81.9	-4.6	1.6	6.8	2.2
CD	Coke and Refined Petroleum Products	41	64.4 (r)	63.5	67.9	63.4	63.6	63.0	64.2	62.0	-2.9	-1.2	-3.4	-3.2
CE-CF	Chemicals and Pharmaceuticals	103	105.4 (r)	94.0	106.2 (r)	96.5 (r)	93.0 (r)	91.5 (r)	94.8	98.5	-7.4	1.4	3.9	-4.9
CG	Rubber and Plastics and other Non-metallic Minerals	82	107.6 (r)	124.2	109.2	118.8 (r)	122.3 (r)	123.1	132.6 (r)	130.4	15.1	2.4	-1.6	-0.5
CH	Basic Metals and Metal Products	127	107.6 (r)	106.6	111.8 (r)	112.2 (r)	107.5 (r)	101.7 (r)	105.0 (r)	109.9	-4.2	-0.8	4.6	-1.5
CI-CJ	Computer and Electronic Products	97	99.9 (r)	99.3	98.2 (r)	99.2 (r)	100.6 (r)	98.1 (r)	99.2 (r)	94.8	-0.7	-1.0	-4.4	-0.8
CK	Machinery and Equipment n.e.c	27	91.2 (r)	92.7	84.0	84.4 (r)	93.1	98.3 (r)	95.0 (r)	101.3	10.7	2.4	6.6	3.6
CL	Transport Equipment	146	112.7 (r)	116.6	117.3 (r)	109.9 (r)	120.0	115.1 (r)	121.6 (r)	130.1	7.4	4.7	7.0	3.1
CM	Other Manufacturing and Repair	149	119.3 (r)	136.8	126.2 (r)	122.4 (r)	145.2 (r)	125.8 (r)	153.9 (r)	148.3	16.8	4.1	-3.7	2.7
CIJKL	Engineering and Allied Industries	270	105.9 (r)	108.0	107.1 (r)	103.5 (r)	110.3 (r)	107.3 (r)	110.9 (r)	114.5	4.9	2.4	3.3	2.1
CCGM	Other Manufacturing	298	108.4 (r)	121.4	112.3 (r)	113.8 (r)	126.3 (r)	114.7 (r)	130.7 (r)	128.5	12.6	2.8	-1.7	1.5
DE	ELECTRICITY, GAS AND WATER SUPPLY ⁽⁵⁾	193	97.1 (r)	98.6	94.4 (r)	97.5	99.8	91.3 (r)	106.0 (r)	102.7	3.3	3.6	-3.0	-1.8
F	CONSTRUCTION	1000	101.4 (r)	110.4	105.8 (r)	107.9 (r)	111.1 (r)	110.1 (r)	112.6 (r)	110.2	6.6	2.6	-2.1	1.1

Source: Short Term Output Indicators, Welsh Government and ONS

- (1) Revisions to the series are normally made each quarter to take account both of more recent information and improved seasonal factors
- (2) All series are seasonally adjusted except CB, CD and CK.
- (3) Where the sections are highlighted in bold; the weights sum to the Index of Production (IOP = 1,000). Those sub-sections whose weights are not highlighted sum to the individual section e.g the sum of the weights for sub-sections CC, CG and CM sum to Section CCGM. There may be some apparent slight discrepancies between the constituent items and the total due to rounding.
- (4) UK figures for production as published by the Office for National Statistics on 30 June 2017 and UK figures for Construction as published by the Office for National Statistics on 9 June 2017.
- (5) Relates to SIC 2007 Sections D - Electricity, Gas and Air Conditioning Supply and Section E - Water Supply; Sewerage, Waste Management and Remediation Activities.
- (r) Data revised since last publication

Table B2: Index of Production, Index of Construction and Sub-Indices ⁽¹⁾

		SEASONALLY ADJUSTED ⁽¹⁾ : 2013 = 100									
2007 SIC	Production Industries		Mining and Quarrying		Manufacturing		Electricity, Gas and Water Supply		Construction		
	Wales	UK	Wales	UK	Wales	UK	Wales	UK	Wales	UK	
SECTION	B+C+D+E		B		C		DE		F		
Weights	1000	1000	19	120	789	700	193	179	1000	1000	
Annual Averages											
1999	88.1	114.5	103.7	241.5	90.5	106.2	78.1	84.7	101.3	(r) 93.8	
2000	91.8	116.6	106.4	232.9	93.8	108.5	84.6	87.3	95.1	(r) 94.6	
2001	93.1	114.8	99.2	220.8	95.5	106.9	85.2	89.5	90.6	(r) 96.3	
2002	98.6	113.1	94.4	219.5	102.0	104.6	87.0	91.8	98.3	(r) 101.8	
2003	97.4	112.4	88.2	207.4	101.7	104.0	82.9	94.9	110.0	(r) 106.7	
2004	101.5	113.2	88.8	192.1	106.7	105.9	84.2	96.4	121.5	(r) 112.4	
2005	100.0	112.4	91.4	177.0	104.7	105.9	84.3	98.5	115.4	(r) 109.7	
2006	100.5	113.1	88.3 (r)	167.0	105.0	108.2	86.0	97.2	113.7	(r) 110.5	
2007	105.4	113.4	72.9	161.7	113.0	108.9	80.6	99.5	117.4	(r) 112.9	
2008	104.5	110.5	75.2	152.5	109.6	105.8	87.6	100.5	108.5	(r) 109.9	
2009	94.3	100.9	73.2	138.9	96.9	95.9	85.7	95.4	94.6	(r) 95.4	
2010	97.1	104.2	74.0	134.5	100.2	100.3	86.8	98.5	88.3	(r) 103.6	
2011	95.7	103.5	93.2	115.3	98.9	102.5	83.5	98.6	97.6	(r) 105.9	
2012	97.2	100.7	104.7 (r)	102.8	97.7	101.0	94.5	98.2	89.4	(r) 98.6	
2013	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	
2014	100.3	101.5	99.4	100.6	101.6	102.9	95.3	96.8	103.6	(r) 108.0	
2015	103.1	102.7	92.3	109.1	104.9	102.7	97.1	98.4	101.4	(r) 113.4	
2016	105.7	103.9	91.5	109.7	107.8	103.5	98.6	101.8	110.4	116.1	
1999	QTR 1	87.7	113.0	108.8	240.9	90.6	104.8	73.3	82.9	105.1	(r) 93.0
	QTR 2	86.7	113.2	106.8	238.9	88.5	105.0	80.1	84.0	101.9	(r) 93.0
	QTR 3	88.5	115.6	107.7	244.0	90.7	107.2	79.6	85.3	102.0	(r) 94.6
	QTR 4	89.4	116.1	91.3	242.3	92.1	107.7	79.5	86.8	96.3	(r) 94.6
2012	QTR 1	96.9	(r) 102.2	104.8 (r)	107.8	99.8 (r)	102.6	85.2 (r)	96.1	88.3	(r) 102.0
	QTR 2	97.3	100.9	108.9 (r)	104.1	98.1	100.8	93.4	99.2	86.0	(r) 98.2
	QTR 3	98.2	101.0	92.8 (r)	104.5	97.3	101.2	102.3	97.7	86.0	(r) 96.6
	QTR 4	96.2	98.8	112.0 (r)	94.9	95.7 (r)	99.4	97.0 (r)	99.5	97.4	97.4
2013	QTR 1	98.6	(r) 99.2	102.5 (r)	97.8	97.7 (r)	99.2	102.3 (r)	100.2	94.9	(r) 97.0
	QTR 2	100.5	99.9	106.5 (r)	99.3	99.7 (r)	99.9	103.2 (r)	100.2	101.4	(r) 98.7
	QTR 3	99.7	100.3	102.1 (r)	101.8	100.4	100.2	96.9 (r)	99.3	101.6	(r) 101.5
	QTR 4	101.1	100.6	88.9 (r)	101.1	102.2 (r)	100.6	97.6	100.3	102.1	(r) 102.8
2014	QTR 1	98.8	(r) 101.1	92.2 (r)	100.9	101.8 (r)	102.2	87.1 (r)	96.9	104.3	(r) 105.1
	QTR 2	100.3	(r) 101.4	97.2 (r)	101.3	100.7	102.8	98.6 (r)	95.9	105.2	(r) 107.1
	QTR 3	100.2	101.7	105.9 (r)	99.4	100.7 (r)	103.1	97.7 (r)	97.4	105.4	(r) 109.8
	QTR 4	102.0	(r) 101.9	102.0 (r)	100.8	103.0 (r)	103.4	97.9 (r)	96.8	99.3	(r) 110.1
2015	QTR 1	102.1	(r) 102.3	113.7 (r)	102.6	102.6 (r)	103.3	98.8 (r)	98.1	97.1	(r) 113.1
	QTR 2	100.6	102.9	102.8 (r)	110.8	102.0 (r)	102.8	95.0	98.4	99.6	(r) 113.8
	QTR 3	105.3	103.0	68.2 (r)	112.7	107.4	102.3	100.3 (r)	99.1	103.1	(r) 112.8
	QTR 4	104.5	(r) 102.6	84.4 (r)	110.2	107.4 (r)	102.5	94.4 (r)	98.2	105.8	(r) 113.8
2016	QTR 1	103.2	(r) 102.3	82.2 (r)	107.3	105.1 (r)	102.2	97.5	99.5	107.9	(r) 115.2
	QTR 2	106.8	(r) 104.6	82.8 (r)	109.8	109.1 (r)	104.0	99.8	103.4	111.1	(r) 116.2
	QTR 3	101.9	(r) 104.2	96.8 (r)	114.8	104.6 (r)	103.2	91.3 (r)	100.8	110.1	(r) 115.8
	QTR 4	111.0	(r) 104.6	104.1 (r)	106.8	112.4 (r)	104.5	106.0 (r)	103.4	112.6	(r) 117.0
2017	QTR 1	111.0	104.7	74.5	108.5	113.9	104.8	102.7	101.5	110.2	118.3

Source: Short Term Output Indicators, Welsh Government and ONS

(1) See the footnotes to Table B1. The full series (back to 1998 Q1) is available at the following link:

<https://stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Economic-Indices/Indices-of-Production-and-Construction>

(r) Data revised since last publication

Table B3a: Index of Production Sub-Sections ⁽¹⁾

SEASONALLY ADJUSTED ⁽¹⁾ : 2013 = 100										
2007 SIC	Food, Beverages and Tobacco		Textiles, Wearing Apparel and Leather		Wood, Paper Products and Printing		Coke and Refined Petroleum Products		Chemicals and Pharmaceuticals	
	Wales	UK	Wales	UK	Wales	UK	Wales	UK	Wales	UK
SUB-SECTION	CA		CB		CC		CD		CE-CF	
Weights	145	163	15	36	67	73	41	13	103	141
Annual Averages										
1999	99.1	96.4	232.8	166.6	60.2	126.1	84.4	136.4	61.6	98.0
2000	93.1	96.2	202.6	161.9	58.0	127.1	90.6	137.4	64.4	101.2
2001	93.5	96.2	221.6	141.4	67.1	124.3	83.1	127.8	72.3	108.2
2002	110.1	99.1	193.5	132.9	95.8	127.5	87.1	133.8	93.1	110.5
2003	117.3	96.9	174.5	131.6	107.2	126.2	78.5	132.2	95.5	111.6
2004	122.7	98.5	151.5	117.9	82.9	125.9	92.1	139.7	95.9	114.6
2005	122.7	99.3	116.9	115.3	79.0	123.9	87.9	132.7	95.2	118.0
2006	118.5	98.5	141.7	115.5	76.2	122.3	88.2	125.8	94.7	122.0
2007	135.2	98.3	141.0	113.6	107.4	121.8	87.1	124.8	85.7	120.7
2008	124.9	95.3	125.6	114.0	111.8	117.0	86.3	120.6	89.2	121.5
2009	110.4	93.9	82.2	103.7	102.2	108.6	92.3	113.7	88.0	119.0
2010	112.8	97.9	86.5	106.9	96.4	109.4	84.7	111.9	94.0	113.5
2011	105.3	104.4	87.2	108.3	103.1	103.3	86.9	113.4	88.6	106.9
2012	105.5	101.7	112.6	104.6	95.4	97.8	80.8	102.0	97.5	102.1
2013	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2014	114.4	104.2	104.9	97.3	92.6	101.1	65.2	91.1	97.3	98.2
2015	107.1	104.0	77.0	97.1	85.0	101.5	64.4	93.5	105.4	101.0
2016	105.6	105.1	81.6	93.2	83.6	101.5	63.5	91.7	94.0	102.2
1999 QTR 1	101.8	96.5	259.7	170.1	48.5	123.8	86.2	143.0	60.9	94.1
QTR 2	102.9	96.1	230.3	166.5	63.0	126.2	89.4	138.3	60.9	96.6
QTR 3	99.8	96.8	213.3	163.4	63.9	128.0	83.0	131.6	62.2	98.9
QTR 4	91.8	96.1	228.0	166.4	65.2	126.4	79.1	132.7	62.4	102.2
2012 QTR 1	104.3 (r)	102.9	101.3	106.2	100.2 (r)	101.3	91.8	113.2	99.7	108.3
QTR 2	102.7	102.2	98.9	104.9	96.9 (r)	97.3	94.6	108.0	101.2 (r)	100.1
QTR 3	104.2 (r)	101.6	128.0	103.7	89.4	97.0	86.7	100.0	95.6	100.8
QTR 4	111.0 (r)	100.1	122.3	103.7	95.1 (r)	95.6	50.0	86.5	93.6 (r)	99.3
2013 QTR 1	89.2 (r)	99.7	96.5	99.9	91.6 (r)	99.8	96.7	101.8	95.1 (r)	98.0
QTR 2	99.1 (r)	100.5	111.5	98.0	101.6 (r)	100.4	101.8	103.3	99.4 (r)	103.0
QTR 3	106.9 (r)	100.5	91.8	100.7	98.8	100.2	100.4	98.9	102.7	98.6
QTR 4	104.9 (r)	99.3	100.2	101.4	107.9 (r)	99.5	101.1	96.0	102.8 (r)	100.4
2014 QTR 1	114.5 (r)	103.3	97.6	101.7	94.5 (r)	100.0	87.1	92.8	98.2 (r)	97.5
QTR 2	119.6	103.6	103.9	102.5	95.5 (r)	100.4	75.8	90.6	96.9	98.3
QTR 3	116.3 (r)	104.5	113.2	93.7	92.9 (r)	102.3	55.0	88.7	96.9 (r)	98.7
QTR 4	107.1 (r)	105.3	104.8	91.6	87.6 (r)	101.6	43.1	92.2	97.2 (r)	98.2
2015 QTR 1	107.2 (r)	104.5	84.4	96.2	85.3 (r)	103.0	60.8	90.8	110.3 (r)	101.0
QTR 2	105.6 (r)	102.9	83.8	100.4	81.4 (r)	100.8	63.4	85.1	97.0	100.2
QTR 3	105.7 (r)	104.1	70.6	95.2	88.0 (r)	100.8	65.7	97.3	108.2 (r)	101.4
QTR 4	110.0 (r)	104.6	69.1	96.5	85.4 (r)	101.6	67.9	101.0	106.2 (r)	101.4
2016 QTR 1	105.6 (r)	104.7	67.9 (r)	92.3	88.7 (r)	100.3	63.4	90.2	96.5 (r)	100.2
QTR 2	100.2 (r)	105.4	78.3 (r)	91.6	89.1 (r)	102.5	63.6	89.8	93.0 (r)	103.0
QTR 3	103.8 (r)	105.2	89.7 (r)	95.1	79.7	101.1	63.0	91.6	91.5 (r)	100.3
QTR 4	112.8 (r)	105.0	90.7 (r)	93.6	76.7 (r)	102.1	64.2	95.4	94.8	105.3
2017 QTR 1	114.9	105.3	82.4	98.7	81.9	104.3	62.0	92.3	98.5	100.2

Source: Short Term Output Indicators, Welsh Government and ONS

(1) See the footnotes to Table B1. The full series (back to 1998 Q1) is available at the following link:

<https://stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Economic-Indices/Indices-of-Production-and-Construction>

(r) Data revised since last publication

Table B3b: Index of Production Sub-Sections *continued*⁽¹⁾

2007 SIC		SEASONALLY ADJUSTED ⁽¹⁾ : 2013 = 100									
		Rubber and Plastics and other Non-metallic Minerals		Basic Metals and Metal Products		Computer and Electronic Products		Machinery and Equipment n.e.c		Transport Equipment	
		Wales	UK	Wales	UK	Wales	UK	Wales	UK	Wales	UK
SUB-SECTION	CG		CH		CI-CJ		CK		CL		
Weights	82	79	127	119	97	81	27	72	146	131	
Annual Averages											
1999		117.4	125.6	175.6	111.7	108.9	136.0	88.9	99.2	52.4	71.6
2000		120.9	126.5	178.6	114.2	127.3	152.6	101.6	99.4	56.0	70.2
2001		123.6	125.2	167.8	112.2	120.7	142.2	92.9	101.1	72.3	68.9
2002		131.2	122.3	153.2	108.2	111.4	123.3	82.2	96.1	86.9	67.4
2003		131.4	125.0	132.4	108.4	113.0	117.4	79.5	95.6	90.9	69.4
2004		138.7	127.4	153.5	111.2	125.6	120.1	94.4	98.9	99.7	71.7
2005		129.1	126.2	144.9	111.8	119.0	115.1	106.1	100.9	96.5	71.8
2006		124.5	131.6	156.6	114.6	127.9	117.3	92.4	106.3	102.8	75.6
2007		140.2	130.8	169.9	116.9	138.8	118.0	117.5	109.1	96.2	77.5
2008		145.1	124.5	143.1	111.9	127.9	112.5	90.7	108.5	99.8	75.2
2009		118.0	107.4	124.2	90.4	88.3	99.4	72.5	86.4	83.6	65.8
2010		115.7	107.5	111.3	95.8	113.2	100.9	101.6	103.3	85.1	80.8
2011		107.1	107.3	108.9	100.0	108.4	98.7	109.2	112.2	93.7	89.0
2012		119.3	102.8	108.2	102.9	86.6	103.1	117.7	113.4	85.0	92.9
2013		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2014		93.5	113.1	102.8	101.5	95.8	101.3	97.9	104.3	107.8	103.5
2015		107.6	109.8	107.6	101.9	99.9	100.6	91.2	91.1	112.7	109.6
2016		124.2	112.3	106.6	100.7	99.3	97.9	92.7	90.0	116.6	113.5
1999	QTR 1	116.1	124.8	186.3	109.0	101.8	133.0	80.5	99.7	51.3	71.2
	QTR 2	113.8	125.4	173.1	109.8	101.2	133.2	79.5	99.3	53.6	69.5
	QTR 3	119.3	126.4	168.9	114.0	112.5	137.9	99.3	99.2	54.1	72.8
	QTR 4	120.3	125.9	174.0	114.1	120.1 (r)	139.9	96.1	98.7	50.7	73.0
2012	QTR 1	117.3 (r)	104.2	118.2 (r)	103.5	84.6	101.3	105.8	112.6	84.4	92.0
	QTR 2	125.7 (r)	103.5	111.1 (r)	101.8	84.7 (r)	103.5	115.6	116.7	82.1 (r)	91.8
	QTR 3	118.2 (r)	102.3	104.1 (r)	105.2	87.4	104.1	127.3	112.8	82.1	94.0
	QTR 4	115.8 (r)	101.4	99.5 (r)	101.1	89.8 (r)	103.6	122.3	111.7	91.5 (r)	93.8
2013	QTR 1	108.0 (r)	96.7	94.6 (r)	99.7	94.7 (r)	101.5	113.2	99.4	96.7 (r)	98.8
	QTR 2	98.6 (r)	98.0	94.9 (r)	98.3	99.7 (r)	101.8	105.8	98.1	102.5 (r)	99.5
	QTR 3	99.5	101.2	106.6	99.6	102.9 (r)	98.9	96.2	100.5	90.5	101.3
	QTR 4	93.9 (r)	104.1	103.9 (r)	102.5	102.7 (r)	97.8	84.8	101.9	110.3 (r)	100.4
2014	QTR 1	90.3 (r)	111.1	102.4 (r)	101.5	95.8 (r)	100.4	94.7	105.6	111.0 (r)	101.4
	QTR 2	97.6 (r)	112.9	101.4 (r)	101.0	89.9 (r)	100.0	88.5	105.9	108.1	104.0
	QTR 3	93.4	114.3	105.2	101.5	102.9 (r)	101.5	95.7	104.3	109.6	103.2
	QTR 4	92.8	114.3	102.2 (r)	101.8	94.7 (r)	103.5	112.7	101.5	102.5 (r)	105.6
2015	QTR 1	107.5 (r)	110.9	100.0 (r)	104.5	103.0 (r)	100.5	99.0	94.4	107.5 (r)	107.2
	QTR 2	99.3 (r)	109.6	108.8 (r)	103.3	100.1 (r)	101.9	85.3	92.1	108.4	109.1
	QTR 3	114.4 (r)	109.1	109.9	100.6	98.1 (r)	100.5	96.6	89.6	117.5	110.2
	QTR 4	109.2	109.5	111.8 (r)	99.3	98.2 (r)	99.3	84.0	88.2	117.3 (r)	112.0
2016	QTR 1	118.8 (r)	111.2	112.2 (r)	101.3	99.2 (r)	96.8	84.4 (r)	88.1	109.9 (r)	109.8
	QTR 2	122.3 (r)	113.7	107.5 (r)	100.1	100.6 (r)	97.4	93.1	90.0	120.0	116.0
	QTR 3	123.1	111.9	101.7 (r)	100.2	98.1 (r)	96.9	98.3 (r)	90.4	115.1 (r)	113.9
	QTR 4	132.6 (r)	112.5	105.0 (r)	101.2	99.2 (r)	100.5	95.0 (r)	91.4	121.6 (r)	114.1
2017	QTR 1	130.4	112.0	109.9	99.7	94.8	99.6	101.3	94.7	130.1	117.7

Source: Short Term Output Indicators, Welsh Government and ONS

(1) See the footnotes to Table B1. The full series (back to 1998 Q1) is available at the following link:

<https://stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Economic-Indices/Indices-of-Production-and-Construction>

(r) Data revised since last publication

Table B3c: Index of Production Sub-Sections *continued*⁽¹⁾

SEASONALLY ADJUSTED ⁽¹⁾ : 2013 = 100

2007 SIC	Other Manufacturing and Repair		Engineering and Allied Industries		Other Manufacturing		
	Wales	UK	Wales	UK	Wales	UK	
SUB-SECTION	CM		CJKL		CCGM		
Weights	149	92	270	285	298	243	
Annual Averages							
1999	62.9	103.1	77.6	110.5	70.5	116.6	
2000	68.6	108.4	88.4	115.4	73.2	119.2	
2001	80.0	103.5	90.0	110.9	80.6	116.2	
2002	74.1	97.8	91.4	105.5	90.7	114.2	
2003	71.0	94.6	93.1	104.1	92.9	113.6	
2004	69.5	96.3	103.9	106.6	87.8	114.9	
2005	78.8	96.5	102.5	105.1	88.1	113.9	
2006	67.5	98.9	106.2	106.6	81.8	116.0	
2007	73.2	101.0	110.2	109.3	97.2	116.4	
2008	83.1	97.5	105.4	105.6	104.2	111.7	
2009	88.4	92.9	82.1	85.2	97.8	102.1	
2010	100.6	96.9	96.3	94.6	102.4	103.9	
2011	95.6	102.1	100.0	100.0	99.9	104.1	
2012	99.1	95.6	89.1	103.2	103.3	98.6	
2013	100.0	100.0	100.0	100.0	100.0	100.0	
2014	107.3	105.6	102.5	104.6	100.2	106.7	
2015	119.3	103.7	105.9	102.3	108.4	105.0	
2016	136.8	107.3	108.0	102.6	121.4	107.2	
1999	QTR 1	61.1	100.6	72.9	109.0	66.7	114.7
	QTR 2	57.2	101.0	73.3	108.8	68.1	115.8
	QTR 3	63.9	105.4	81.4	111.3	72.4	118.3
	QTR 4	69.1	105.2	82.7	112.9	75.0	117.6
2012	QTR 1	102.5	96.9	86.5	102.9	105.3	100.6
	QTR 2	90.1	93.9	86.7	103.9	101.1	98.0
	QTR 3	98.9 (r)	96.6	89.2	103.6	101.6	98.5
	QTR 4	104.8	95.1	94.2	102.2	105.1	97.2
2013	QTR 1	108.8	99.1	97.7	99.8	104.1 (r)	98.6
	QTR 2	98.3 (r)	97.7	101.7 (r)	99.5	99.1 (r)	98.6
	QTR 3	96.9 (r)	101.5	96.3	100.4	98.0	101.0
	QTR 4	96.1	101.8	104.3 (r)	100.3	98.7 (r)	101.8
2014	QTR 1	101.8 (r)	104.2	103.9 (r)	103.7	97.0 (r)	105.2
	QTR 2	97.1 (r)	104.3	99.6 (r)	105.4	96.9 (r)	105.9
	QTR 3	93.4 (r)	107.1	105.8	104.4	93.3 (r)	108.0
	QTR 4	136.7	106.9	100.7	104.9	113.6 (r)	107.7
2015	QTR 1	109.0 (r)	105.5	105.0 (r)	102.1	103.3 (r)	106.5
	QTR 2	117.1	105.0	103.1 (r)	102.6	104.2 (r)	105.2
	QTR 3	124.9 (r)	102.3	108.4 (r)	102.2	113.7 (r)	104.0
	QTR 4	126.2 (r)	102.0	107.1 (r)	102.4	112.3 (r)	104.3
2016	QTR 1	122.4 (r)	106.6	103.5 (r)	99.9	113.8 (r)	106.2
	QTR 2	145.2 (r)	107.6	110.3 (r)	103.7	126.3 (r)	108.0
	QTR 3	125.8 (r)	107.9	107.3 (r)	102.7	114.7 (r)	107.1
	QTR 4	153.9 (r)	107.3	110.9 (r)	104.2	130.7 (r)	107.4
2017	QTR 1	148.3	110.2	114.5	106.4	128.5	109.0

Source: Short Term Output Indicators, Welsh Government and ONS

(1) See the footnotes to Table B1. The full series (back to 1998 Q1) is available at the following link: <https://stats.wales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/Economic-Indices/Indices-of-Production-and-Construction>

(r) Data revised since last publication