

Statistical First Release





Index of Production and Index of Construction for Wales: 2017 Quarter 4

19 April 2018 SFR 30/2018

1. Background and Key Points

The Production and Construction sectors account for approximately 22.0 per cent and 5.8 per cent of the Welsh economy respectively. We also publish a Welsh <u>Index of Market Services</u> quarterly statistical release which accounts for a further 45.9 per cent of the Welsh economy.

When comparing the year ending December 2017 to the year ending December 2016, the Index of Production **increased** for both Wales (1.1 per cent) and the UK (1.9 per cent). The increase in Wales was largely accounted for by an increase in output in *Transport Equipment*, whilst the increase in the UK was largely accounted for by *Other Manufacturing and Repair*, *Transport Equipment* and *Machinery and Equipment*. When comparing the current quarter with the previous quarter, output **increased** for both Wales (3.7 per cent) and the UK (0.4 per cent).

Chart 1.1: Index of Production



The Index of Construction **increased** when comparing the year ending December 2017 to year ending December 2016, for both Wales (3.8 per cent) and the UK (5.7 per cent). When comparing the current quarter with the previous quarter, construction industry output **increased** in Wales by 0.5 per cent and **decreased** in the UK by 0.1 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 December 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 78.8 per cent. *Electricity, Gas and Water Supply* accounts for 19.8 per cent and *Mining and Quarrying* for 1.4 per cent.

The largest components within *Manufacturing* are *Other Manufacturing* and *Repair* and *Transport Equipment*, accounting for 20.0 per cent and 17.9 per cent of the Index of Production respectively. The smallest component within *Manufacturing* is *Textiles, Wearing Apparel & Leather* accounting for 1.1 per cent of the Index of Production. For further information on the industry sections and subsectors 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)

(2015=100)

							Percentage change: Late			test	
	201	2016		2016 2017				•	4 qtrs to qtr to previous 4 qtrs qtr		
	Q3	Q4	Q1	Q2	Q3	Q4	Wales	UK ⁽²⁾	Wales	UK ⁽²⁾	
PRODUCTION	98.8 (r)	108.4 (r)	108.4 (r)	102.0 (r)	100.8 (r)	104.5	1.1	1.9	3.7	0.4	
Manufacturing	99.8 (r)	108.4 (r)	110.5 (r)	105.6 (r)	105.6 (r)	110.2	4.5	2.5	4.3	1.3	
Mining and Quarrying Electricity, Gas and	104.5 (r)	107.6 (r)	77.3 (r)	51.8	47.2 (r)	46.3	-43.3	-0.5	-1.8	-4.9	
Water Supply ⁽³⁾	94.2 (r)	108.6 (r)	102.3 (r)	91.2 (r)	85.4 (r)	86.3	-9.4	0.4	1.1	-0.4	
CONSTRUCTION	111.6 (r)	114.9 (r)	115.6 (r)	118.8 (r)	112.7 (r)	113.3	3.8	5.7	0.5	-0.1	

⁽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 29 March 2018 and UK figures for Construction as published by the Office for National Statistics on 9 March 2018.

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

⁽r) Data revised since last publication.

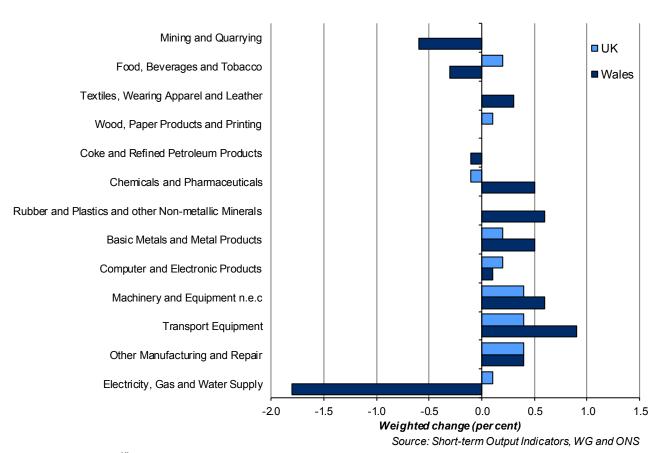
2. Index of Production Sector Changes

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 December 2017 to the year ending December 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 2015 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 December 2017, four sub-sectors have declined and one has remained unchanged. *Transport Equipment* showed the largest positive weighted change overall in Wales, whilst *Electricity*, *Gas and Water Supply* has shown the largest negative weighted change.

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

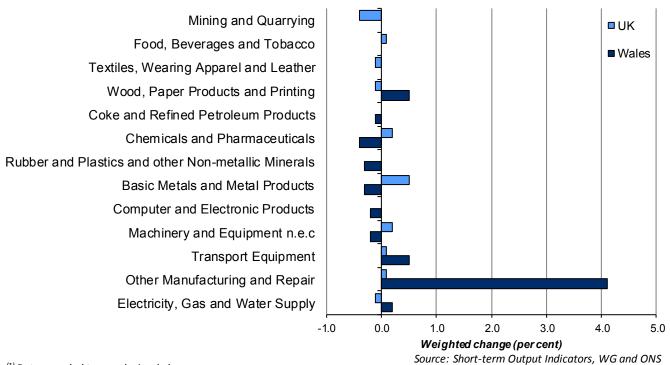


⁽¹⁾ Data rounded to one decimal place

Eight of the thirteen sub-sectors for the UK have grown in output over the year ending December 2017, one sub-sector has declined, and four sub-sectors have remained unchanged (to one decimal place). Other Manufacturing and Repair, Transport Equipment and Machinery and Equipment were the sub-sectors with the largest positive weighted change in the UK whilst the only negative weighted change was in Chemicals and Pharmaceuticals.

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

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



(1) Data rounded to one decimal place

Other Manufacturing and Repair had the largest positive weighted change for Wales whilst Basic Metals and Metal Products had the largest positive weighted change in the UK. The Chemicals and Pharmaceuticals sub-sector has shown the largest negative weighted change for Wales whilst Mining and Quarrying had the largest negative weighted change in the UK.

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 December 2017 compared to the year ending December 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 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, which is due to a number of sites having ceased production during this time period. (Chart 3.1)

250
200
150
100
Wales
50
0
Wales
100
100
Wales

Chart 3.1: Index of Mining and Quarrying

Source: Short-term output indicators, WG and ONS

The Index of Mining and Quarrying for Wales decreased over the longer term by 43.3 per cent and decreased over the short term by 1.8 per cent. The UK index also decreased over the both the longer term and the short term (down 0.5 per cent and down 4.9 per cent respectively).

3.2. Index of Manufacturing

The Index of Manufacturing in Wales and the UK have followed a similar pattern since 1999. They both increased to 2008 before decreasing during the 2008-09 recession. Since then they have both increased at similar rates, with the Wales index rising above the UK index in 2016. (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 78.8 per cent of the Index of Production. Manufacturing output over the longer term has increased in Wales and in the UK (up 4.5 per cent and up 2.5 per cent, respectively). Over the short term, manufacturing output also increased in both Wales and the UK (by 4.3 per cent and 1.3

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 has fluctuated since 1999. It increased in 2012 quarter 2, mostly due to the opening of a new power station in Pembroke and the output of this power station has continued to impact on this series since although the series has varied. Output has decreased since the end of 2016, which can be attributed to the downgrading in operations of Aberthaw power station. The UK has steadily increased since 1999 with a fall between 2008 and 2009 due to the recession. *(Chart 3.3)*

120
110
100
90
80
Wales
70
Wales
Source: Short-term output indicators, WG and ONS

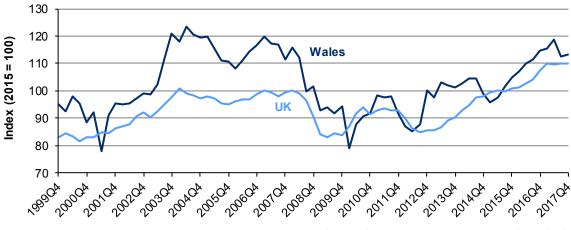
Chart 3.3: Index of Electricity, Gas and Water Supply

The Index of Electricity, Gas and Water Supply for Wales decreased over the longer term (down 9.4 per cent) and the UK increased over the longer term (up 0.4 per cent). Output over the short term increased in Wales (up 1.1 per cent) and decreased in the UK (down 0.4 per cent).

4. Index of Construction

Around the recession of 2008-09, both Wales and the UK decreased with Wales having a larger fall than the UK. Despite this fall, both have increased overall since 1999. (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 both the longer term (3.8 per cent) and the short term (0.5 per cent). The UK index increased over the longer term by 5.7 per cent and decreased over the short term by 0.1 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.

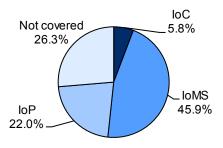
The Index of Production and Index of Construction show the quarterly movements in gross output of the production and construction sectors in Wales. Gross output is used as a proxy for Gross Value Added (GVA), measured by a variety of data sources since GVA cannot currently be measured to a sufficient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



5.2 Accuracy

Estimates are subject to revision. Estimates for 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. For more information see our <u>revisions policy</u>.

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 2017 Quarter 3 1

	Production	Manufacturing	Mining & Quarrying	Electricity, Gas & Water	Construction
Current	100.8	105.6	47.2	85.4	112.7
Previous	101.0	105.9	47.7	85.5	109.4
Revision	-0.3	-0.3	-0.5	-0.2	3.3

Source: Short-term output indicators, WG and ONS

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 lag 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 our <u>website</u>. Additional information on the Index of Production and Index of Construction is available on <u>StatsWales</u>, 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 <u>Indices of Production and Construction</u> 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 is currently developing Regional Short term indicators for English regions. The Scottish Government publishes a GDP measure in place of short-term output indicators. The Northern Ireland Assembly publishes 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 <u>Summary Quality Report</u>.

¹ 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.

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 <u>United Kingdom Statistics Authority</u> 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 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 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 the indicators, along with narratives for each of the well-being goals and associated technical information is available in the Well-being of Wales report.

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

July 2018 (Statistical First Release for 2018 Q1)

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

SIC 2007	Description
В	Mining and Quarrying
С	Manufacturing
CA (10-12)	Food products, beverages and tobacco
CB (13-15)	Textiles, wearing apparel and leather products
CC (16-18)	Wood and paper products, and printing
CD (19)	Coke and refined petroleum products
CECF (20-21)	Chemicals and pharmaceuticals
CG (22-23)	Rubber & plastics products, & other non-metallic minerals
CH (24-25)	Basic metals and metal products
CICJ (26-27)	Computer and electronic products
CK (28)	Machinery and equipment n.e.c.
CL (29-30)	Transport equipment
CM (31-33)	Other manufacturing and repair
CIJKL	Engineering and allied industries
CCGM	Other manufacturing
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	Wholesale, Retail Sale & Repair of Motor Vehicles
46	Wholesale Trade except Motor Vehicles
47	Retail Sales except Motor Vehicles
Н	Transportation and Storage
49-51	Land, water and air transport
52-53	Warehousing and support activities for transportation; postal and courier activities
1	Accommodation and Food Service Activities
55	Accommodation
56	Food and beverage service activities
J	Information and Communication
JA (58-60)	Publishing, audio-visual and broadcasting activities
JB (61)	Telecommunications
JC (62-63)	Information technology and other information activities
K	Financial and Insurance Activities
L	Real Estate Activities
L x OOD	Real Estate excluding Owner Occupied Dwellings
OOD	Owner Occupied Dwellings
M	Professional, Scientific and Technical Activities
N	Administrative and Support Service Activities
R-T	Other Services

¹ See <u>UK Standard Industrial Classification of Economic Activities 2007</u> for full category descriptions.

Appendix B: Reference Tables

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

SEASONALLY ADJUSTED	(2) · 2015 = 100

													hange: La	
2007 STANDARD INDUSTRIAL CLASSIFICATION		Index	Annual In	dices	201	6	2017				4 qtrs to previous 4 gtrs		qtr to previous qtr	
Section	DESCRIPTION	Weights ⁽³⁾	2016	2017	QTR 3	QTR 4	QTR 1	QTR 2	QTR 3	QTR 4	Wales	UK ⁽⁴⁾	Wales	UK ⁽⁴⁾
B-E	PRODUCTION INDUSTRIES	1000	102.8 (r)	103.9	98.8 (r)	108.4 (r)	108.4 (r)	102.0 (r)	100.8 (r)	104.5	1.1	1.9	3.7	0.4
В	MINING AND QUARRYING	14	98.1 (r)	55.6	104.5 (r)	107.6 (r)	77.3 (r)	51.8	47.2 (r)	46.3	-43.3	-0.5	-1.8	-4.9
С	MANUFACTURING	788	103.3 (r)	108.0	99.8 (r)	108.4 (r)	110.5 (r)	105.6 (r)	105.6 (r)	110.2	4.5	2.5	4.3	1.3
CA	Food, Beverages and Tobacco	147	98.6 (r)	96.1	96.5 (r)	104.2 (r)	94.8 (r)	96.7 (r)	96.4 (r)	96.6	-2.5	2.0	0.2	0.6
CB	Textiles, Wearing Apparel and Leather	11	106.5 (r)	138.0	116.5	119.3	111.1 (r)	147.7	148.2 (r)	145.2	29.6	0.7	-2.0	-4.4
CC	Wood, Paper Products and Printing	65	98.8 (r)	98.3	95.2 (r)	92.8 (r)	91.7 (r)	94.7 (r)	98.6 (r)	108.1	-0.5	1.4	9.7	-1.5
CD	Coke and Refined Petroleum Products	24	98.6 (r)	94.9	97.7	99.6	96.3	97.5	95.3	90.6	-3.7	0.4	-4.9	1.0
CE-CF	Chemicals and Pharmaceuticals	104	88.4 (r)	95.3	85.3 (r)	89.3 (r)	93.2 (r)	92.8 (r)	100.1 (r)	94.9	7.8	-1.2	-5.2	1.7
CG	Rubber and Plastics and other Non- metallic Minerals	75	119.7 (r)	130.3	118.4 (r)	130.9 (r)	127.2 (r)	129.9	134.3 (r)	129.9	8.9	-0.2	-3.3	-0.5
CH	Basic Metals and Metal Products	127	98.2 (r)	103.4	92.4 (r)	98.0 (r)	101.6 (r)	104.3 (r)	105.3	102.5	5.3	2.5	-2.6	5.5
CFCJ	Computer and Electronic Products	42	99.4 (r)	101.9	95.4 (r)	99.7 (r)	95.7 (r)	97.6 (r)	110.7 (r)	103.7	2.5	4.4	-6.3	0.6
CK	Machinery and Equipment n.e.c	26	104.9 (r)	137.0	110.8	113.4 (r)	122.2 (r)	135.0 (r)	149.6 (r)	141.1	30.6	8.1	-5.7	5.3
CL	Transport Equipment	179	103.7 (r)	110.2	102.2 (r)	108.3 (r)	114.0 (r)	107.0 (r)	108.2 (r)	111.6	6.3	4.0	3.2	1.0
CM	Other Manufacturing and Repair	200	114.0 (r)	116.4	105.7 (r)	126.6 (r)	136.7 (r)	109.5 (r)	96.7 (r)	122.6	2.1	5.8	26.8	0.8
CIJKL	Engineering and Allied Industries	247	103.1 (r)	111.6	101.9 (r)	107.3 (r)	111.7 (r)	108.3 (r)	112.9 (r)	113.3	8.2	3.9	0.4	1.3
CCGM	Other Manufacturing	340	112.3 (r)	116.0	106.5 (r)	121.0 (r)	126.0 (r)	111.2 (r)	105.3 (r)	121.5	3.3	2.6	15.3	-0.3
DE	ELECTRICITY, GAS AND WATER SUPPLY (5)	198	100.8 (r)	91.3	94.2 (r)	108.6 (r)	102.3 (r)	91.2 (r)	85.4 (r)	86.3	-9.4	0.4	1.1	-0.4
F	CONSTRUCTION	1000	110.9 (r)	115.1	111.6 (r)	114.9 (r)	115.6 (r)	118.8 (r)	112.7 (r)	113.3	3.8	5.7	0.5	-0.1

⁽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, CC, CD and CK.

⁽³⁾ Where the sections are highlighted in bold; the w eights sum to the Index of Production (IoP = 1,000). Those sub-sections w hose w eights are not highlighted sum to the individual section e.g the sum of the w eights 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.

UK figures for production as published by the Office for National Statistics on 29 March 2018 and UK figures for Construction as published by the Office for National Statistics on 9 March 2018

⁽⁵⁾ Relates to SIC 2007 Sections D - Electricity, Gas and Air Conditioning Supply and Section E - Water Supply; Sew erage, 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): 2015 = 100

2007 SIC		Product	tion Industries	Mining Quarr		Manufact	turing	⊟ectricity, Water \$		Construction		
SECTIO	DN	Wales UK B+C+D+E		Wales B	Wales UK B		Wales UK C		UK E	Wales	F	UK
Weight	s	1000	1000	14	87	788	720	198	192	1000		1000
Annua	l Averages											
1999	J	84.7	111.5	116.8	224.0	85.3	103.2	80.8	85.6	99.9	(r)	82.4
2000		88.0	113.6	121.1	216.1	88.1	105.5	87.3	88.3	93.7	(r)	83.2
2001		89.0	111.8	112.6	205.0	89.4	103.9	88.1	90.4	89.0	(r)	84.6
2002		94.4	110.2	108.4	203.7	95.6	101.6	90.2	92.8	96.6	(r)	89.5
2003		93.2	109.6	99.9	192.9	95.3	101.1	86.0	95.9	108.5		93.8
2004		97.2	110.3	100.2	178.7	100.0	102.9	87.7	97.4	120.4	(r)	98.8
2005		95.7	109.6	104.6	164.6	98.1	102.9	87.3	99.5	114.3	(r)	96.4
2006		96.4	110.2	100.9	155.3	98.6	105.1	89.1	98.3	112.5	(r)	97.1
2007		100.8	110.5	85.7	150.3	105.7	105.8	83.1	100.7	116.3	(r)	99.2
2008		100.2	107.8	83.5	141.4	102.7	102.8	91.1	102.9	107.3	(r)	96.6
2009		90.3	98.3	81.4	128.2	90.9	93.2	88.7	96.8	93.3		83.9
2010		93.7	101.4	82.1	123.9	94.9	97.4	89.7	99.8	87.3	(r)	91.0
2011		92.1	100.8	103.4	106.3	93.4	99.6	86.1	99.8	96.3		93.0
2012		94.1	98.0	114.6	94.6	92.7	98.1	98.0	99.4	90.1	(r)	86.6
2013		96.4	97.3	109.7	91.9	94.3	97.2	104.0	101.2	101.0	(r)	87.9
2014		97.2	98.8	107.6	92.5	96.7	100.0	98.6	98.1	102.7	(r)	95.7
2015		100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		100.0
2016		102.8	(r) 101.3	98.1	100.0	103.3 (r)	100.9	100.8	103.6	110.9	(r)	103.9
2017		103.9	103.2	55.6	99.5	108.0	103.5	91.3	104.0	115.1		109.8
1999	QTR 1	84.1	(r) 110.0	122.5	223.3	85.2 (r)	101.8	75.8 (r)	83.8	103.8	(r)	81.7
1000	QTR 2	83.5	(r) 110.3	119.8	221.3	83.4 (r)	102.0	83.1 (r)	84.8	100.5	(1)	81.8
	QTR3	85.1	(r) 110.6	120.6	226.4	85.5 (r)	104.2	82.3	86.2	100.4	(r)	83.1
	QTR 4	86.1	(r) 112.0 (r) 113.2	104.4	224.9	87.0 (r)	104.7	82.2	87.7	95.0	(1)	83.1
2012	QTR 1	92.9	(r) 99.3	115.0 (r)		93.8 (r)	99.7	87.5 (r)	97.2	87.1	(r)	89.9
	QTR 2	93.7	(r) 98.2	118.4 (r)		92.7 (r)	97.9	95.8 (r)	100.5	85.2	(r)	86.2
	QTR3	95.3	(r) 98.3	101.6 (r)		92.1 (r)	98.3	107.5 (r)	99.0	87.8	(r)	84.9
	QTR 4	94.5	(r) 96.2	123.2 (r)		92.3 (r)	96.7	101.1 (r)	100.7	100.2	(r)	85.5
2013	QTR 1	95.1	(r) 96.5	113.1 (r)		92.3 (r)	96.4	105.5 (r)	101.4	97.4	(r)	85.5
	QTR 2	96.7	(r) 97.1	118.0 (r)		93.9	97.0	106.6 (r)	101.5	103.2	(r)	86.6
	QTR 3	96.2	(r) 97.6	111.8 (r)		94.4 (r)	97.4	102.1 (r)	100.6	101.8	(r)	89.1
	QTR 4	97.5	(r) 98.1	95.9 (r)		96.5 (r)	97.9	101.8 (r)	101.5	101.4	(r)	90.3
2014	QTR 1	94.6	(r) 98.3	99.3 (r)		96.0 (r)	99.2	88.4 (r)	98.2 (r)	102.8	(r)	92.9
	QTR 2	97.8	98.5	107.7 (r)		96.6 (r)	99.8	101.8 (r)	97.2	104.4	(r)	94.6
	QTR 3	97.4	(r) 99.0	115.1 (r)		95.8 (r)	100.3	102.4 (r)	98.7	104.4	(r)	97.5
	QTR 4	99.3	(r) 99.4	108.3 (r)		98.5 (r)	100.7	101.8 (r)	98.1	99.0	(r)	97.9
2015	QTR 1	98.3	(r) 99.7	120.3 (r)	93.8	97.4 (r)	100.6	100.6 (r)	99.8	95.8	(r)	99.4
	QTR 2	98.2	100.3	114.8 (r)	102.1	97.9 (r)	100.0	97.9 (r)	100.1	97.7	(r)	100.1
	QTR 3	102.6	(r) 100.2	75.7 (r)	103.6	102.7 (r)	99.6	104.7 (r)	100.5	101.7		99.7
	QTR 4	100.9	(r) 99.8	89.2 (r)	100.5	102.0 (r)	99.7	96.9 (r)	99.6	104.9	(r)	100.8
2016	QTR 1	98.8	(r) 99.8	86.6 (r)	97.8	99.3 (r)	99.8	97.6 (r)	100.9	107.1	(r)	101.2
	QTR 2	105.1	101.9	93.9 (r)	100.2	105.9	101.2	102.9 (r)	105.4	109.8	(r)	102.8
	QTR 3	98.8	(r) 101.4	104.5 (r)	105.5	99.8 (r)	100.6	94.2 (r)	102.8	111.6	(r)	104.1
	QTR 4	108.4	(r) 102.2	107.6 (r)	96.5	108.4 (r)	102.1	108.6 (r)	105.2	114.9	(r)	107.4
2017	QTR 1	108.4	(r) 102.6	77.3 (r)	99.1 (r)	110.5 (r)	102.6 (r)	102.3 (r)	104.1 (r)	115.6	(r)	109.9 (r)
	QTR 2	102.0	(r) 102.6 (r	51.8	100.0 (r)	105.6 (r)	102.6	91.2 (r)	103.7 (r)	118.8	(r)	109.5 (r)
	QTR 3	100.8	(r) 103.6 (ı) 47.2 (r)	102.0 (r)	105.6 (r)	103.7 (r)	85.4 (r)	104.3 (r)	112.7	(r)	110.0 (r)
	QTR 4	104.5	104.1	46.3	97.0	110.2	105.0	86.3	103.9	113.3		109.9

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

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

SEASONALLY ADJUSTED (1): 2015 = 100

2007 SIC Food, Beverages and Tobacco			Apparel and Leather and Print			Printing	Petroleur	nd Refined on Products	Chemicals and Pharmaceuticals			
	Wales	UK	Wales	UK	Wales	UK	1		Wales UK			
SUB-SECTION	(<u>CA</u>	<u> </u>	<u>B</u>	<u> </u> '	<u>cc</u>	} '	C <u>D</u>	CE-CF			
Weights	147	159	11	37	65	70	24	18	104	140		
Annual Averaç	-		}				}					
1999	92.5	92.5	305.8	172.7	71.2	123.8	131.0	146.1	58.0	96.8		
2000	86.9	92.3	264.9	167.7	68.8	124.8	140.6	147.1	59.8	100.0		
2001	87.3	92.3	290.5	146.6	79.9	122.1	129.0	136.9	67.4	107.0		
2002	102.8	95.1	253.1	137.8	113.9	125.2	135.2	143.3	87.1	109.3		
2003	109.5	93.0	228.7	136.4	127.2	123.9	121.9	141.6	89.5	110.3		
2004	114.6	94.6	197.0	122.2	98.2	123.6	143.0	149.6	90.0	113.3		
2005	114.6	95.3	153.2	119.5	93.5	121.7	136.5	142.1	87.9	116.6		
2006	110.7	94.5	185.7	119.7	90.5	120.1	136.9	134.8	90.3	120.6		
2007	126.2	94.4	185.2	117.7	127.5	119.6	135.2	133.6	81.8	119.3		
2008	116.6	91.5	164.9	118.2	132.4	114.9	133.9	129.2	84.7	120.0		
2009	103.1	90.1	107.5	107.5	121.3	106.6	143.2	121.8	83.2	117.6		
2010	105.3	94.0	112.8	110.8	113.9	107.5	131.5	119.8	89.1	112.1		
2011	98.3	100.1	114.9	112.3	121.8	101.4	134.9	121.5	83.0	105.7		
2012	98.5	97.6	147.1	108.4	113.0	96.0	125.3	109.2	90.7	101.0		
2013	93.4	95.9	131.5	103.6	117.9	98.2	155.2	107.1	92.1	98.9		
2014	106.8	100.0	137.6	100.9	109.7	99.3	101.2	97.5	90.5	97.1		
2015	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0		
2016	98.6	101.1	106.5	97.6	98.8	98.7	98.6	98.5	88.4	98.9		
2017	96.1	103.1	138.0	98.3	98.3	100.1	94.9	99.0	95.3	97.8		
1999 QTR 1	95.1	92.6	339.7	176.3	55.8 (r)	121.5	133.7	153.2	57.2	93.0		
QTR 2	96.1	92.2	303.7	172.4	71.7 (r)		138.8	148.1	57.3 (r)	95.5		
QTR 3	93.2	92.9	279.1	169.4	77.4 (r)		128.9	140.9	58.7 (r)	97.7		
QTR 4	85.8 (r)		300.6	172.5	79.8 (r)		122.8	142.1	59.0	101.1		
2012 QTR 1	97.5	98.7	132.3	109.8	113.8 (r)		142.5	121.2	92.4 (r)	107.1		
QTR 2	96.1 (r)		129.1	108.9	113.4 (r)		146.7	115.8	94.2 (r)	99.1		
QTR 3	97.2 (r)		167.2	107.6	109.6 (r)		134.5	107.2	88.9	99.5		
QTR 4	103.3 (r)		159.7	107.4	115.2 (r)		77.5	92.6	87.3	98.2		
2013 QTR 1	83.4 (r)		127.2	103.5	102.5 (r)		150.1	108.9	88.2 (r)	97.0		
QTR 2	92.7	96.2	147.0	101.7	118.6 (r)		158.0	110.9	91.5 (r)	101.4		
QTR 3	99.6 (r)		121.1	104.5	120.6 (r)		155.8	106.0	94.6	97.6		
QTR 4	97.7	95.4	130.8	104.8	130.0 (r)		156.9	102.7	94.2	99.4		
2014 QTR 1	107.2 (r)		128.7	105.2	106.6 (r)		135.1	99.3	91.5 (r)	96.6		
QTR 2	112.1	99.2	137.0	107.2	114.2 (r)		117.6	97.4	90.5 (r)	96.9		
QTR 3	108.3 (r)		147.8	97.1	113.3 (r)		85.3	95.0	89.7	97.6		
QTR 4	99.5 (r)		136.8	94.3	104.7 (r)		66.8	98.5	90.4 (r)	97.3		
2015 QTR 1	100.6 (r)		110.2	98.3	94.7 (r)		94.3	97.2	103.7 (r)	100.4		
QTR 2	99.2	98.7	108.4	103.6	96.1 (r)		98.4	90.7	93.0 (r)	99.5		
QTR 3	98.3 (r)		92.1	98.6	106.2 (r)		102.0	103.4	101.7 (r)	100.2		
QTR 4	102.0 (r)		89.3	99.4	102.9 (r)		105.3	108.7	101.6 (r)	99.9		
2016 QTR 1	99.3 (r)		87.7	99.7	99.4 (r)		98.3	96.7	91.4 (r)	97.8		
QTR 2	94.3	101.6	102.5	97.6	107.8 (r)		98.7	96.9	87.7 (r)	99.2		
QTR 3	96.5 (r)		116.5	96.8	95.2 (r)		97.7	98.4	85.3 (r)	97.1		
QTR 4	104.2 (r)		119.3	96.4	92.8 (r)		99.6	102.2	89.3 (r)	101.7		
2017 QTR 1	94.8 (r)		111.1 (r)	99.5 (r)	91.7 (r)		96.3	99.7 (r)	93.2 (r)	96.6		
QTR 2	96.7 (r)		147.7	99.5 (r)	94.7 (r)		97.5	102.0 (r)	92.8 (r)	98.3		
QTR 3	96.4 (r)		148.2 (r)	99.2 (r)	98.6 (r)		95.3	96.6 (r)	100.1 (r)	97.2		
QTR 4	96.6	103.7	145.2	94.9	108.1	98.6	90.6	97.6	94.9	98.9		

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

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

SEASONALLY ADJUSTED (1): 2015 = 100 2007 SIC Rubber and Plastics Basic Metals and Metal Transport Equipment Computer and Machinery and **Products** and other Non-metallic **Electronic Products** Equipment n.e.c Minerals UK UK Wales UK Wales Wales UK Wales UK Wales CG CH CI-CJ CK CL SUB-SECTION 75 81 127 122 26 42 76 61 179 143 Weights **Annual Averages** 1999 110.5 114.2 161.7 109.8 109.3 136.0 95.4 109.3 46.6 65.5 2000 113.6 115.0 164.9 112.2 127.4 152.6 109.1 109.5 49.8 64.2 2001 115.5 113.8 154.3 110.2 120.8 142.3 99.5 111.3 64.0 63.0 2002 122.9 111.2 140.0 106.2 111.6 123.3 87.9 105.8 77.0 61.6 2003 123.0 113.7 120.3 106.5 113.2 117.4 85.4 105.3 81.1 63.4 2004 130.5 115.9 109.3 125.4 120.1 101.1 108.9 140.8 88.4 65.6 2005 121.4 114.7 133.5 109.8 119.3 115.1 113.5 111.1 85.8 65.6 2006 117.1 119.6 144.5 112.6 128.4 117.3 99.2 117.0 91.2 69.1 2007 131.8 118.9 155.5 114.9 126.1 120.2 85.4 (r) 70.9 139.3 118.0 2008 136.0 113.2 132.0 109.9 128.7 112.5 97.1 119.4 88.6 68.8 2009 88.8 95.1 110.8 97.7 113.9 88.4 99.4 77.8 74.4 60.2 2010 108.7 97.8 103.5 94.1 113.1 100.9 109.1 113.8 75.6 73.9 97.6 98.2 98.7 117.0 123.5 2011 99.5 101.6 108.8 83.0 81.4 2012 111.6 93.5 100.5 101.1 103.1 126.2 124.9 75.7 84.9 86.8 2013 93.8 90.9 93.3 98.2 100.1 99.9 107.2 110.1 88.3 91.4 2014 87.8 102.9 96.2 99.8 96.0 101.2 104.9 95.7 94.5 114.8 2015 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 100.0 2016 119.7 101.6 98.6 99.7 100.7 98.2 99.4 104.9 (r) 103.7 103.8 2017 130.3 101.4 103.4 101.0 101.9 104.0 137.0 108.9 110.2 107.9 QTR 1 107.0 1999 109.2 113.3 170.7 (r) 103.1 132.9 86.1 109.8 45.7 65.0 QTR 2 107.2 114.1 159.7 (r) 108.0 101.1 133.3 85.0 109.4 47.9 63.5 QTR 3 112.4 115.0 155.6 (r) 111.9 112.7 138.0 107.0 109.2 48.0 66.6 QTR 4 113.2 114.5 160.8 (r) 112.2 120.3 140.0 103.6 108.7 44.9 66.8 2012 QTR 1 108.6 94.9 108.5 (r) 101.9 84.9 (r) 101.2 113.4 123.5 74.6 (r) 84.3 94.2 QTR 2 118.4 (r) 103.9 (r) 99.8 85.2 (r) 103.6 123.9 127.9 72.7 83.9 (r) QTR 3 92.9 97.0 103.3 136.4 124.3 73.1 85.9 110.6 (r) 87.3 (r) 104.2 (r) 92.0 QTR 4 108.8 92.6 99.4 89.6 (r) 103.5 123.9 82.2 (r) 85.6 (r) (r) 131.1 2013 QTR 1 101.2 88.2 88.6 (r) 97.9 94.9 (r) 101.4 121.4 108.6 85.8 90.5 QTR 2 92.9 (r) 89.0 89.2 (r) 96.4 99.7 (r) 101.7 113.4 107.4 90.2 90.8 QTR 3 93.0 (r) 91.9 98.6 (r) 97.8 102.6 (r) 98.9 103.1 111.0 79.9 (r) 92.6 100.7 103.5 (r) 97.7 QTR 4 88.2 (r) 94.4 96.9 (r) 90.9 113.3 97.2 (r) 91.7 96.0 (r) 2014 QTR 1 84.7 101.2 96.4 (r) 99.7 100.1 101.5 96.8 (r) 92.7 115.5 91.9 (r) 96.9 (r) QTR 2 102.8 95.8 (r) 99.0 91.1 100.1 94.8 115.8 94.7 QTR 3 87.2 (r) 103.9 97.7 (r) 100.0 102.2 (r) 101.3 102.5 115.0 97.7 (r) 94.2 91.2 (r) QTR 4 87.2 (r) 103.7 95.0 (r) 100.5 94.4 (r) 103.1 120.8 113.0 96.4 2015 100.8 102.6 QTR 1 101.4 93.6 (r) 103.4 (r) 100.0 106.1 102.8 94.0 (r) 97.8 97.9 (r) 92.4 (r) 100.0 101.1 101.1 100.5 99.7 OTR 2 101.3 (r) 101.8 (r) 93.3 QTR 3 105.5 (r) 99.2 101.5 (r) 98.8 96.8 99.8 108.7 98.9 105.0 (r) 100.6 QTR 4 101.3 (r) 99.4 103.5 (r) 97.5 98.0 99.0 91.9 97.7 103.1 (r) 102.0 2016 QTR 1 112.8 100.9 103.7 (r) 99.5 99.8 (r) 98.6 90.8 98.6 95.6 (r) 100.7 116.7 (r) 101.9 98.6 98.0 102.7 (r) 99.0 104.5 100.4 108.8 105.8 QTR 2 (r) 101.0 98.3 101.1 QTR 3 118.4 (r) 92.4 (r) 98.3 95.4 (r) 110.8 102.2 (r) 104.3 99.7 (r) QTR 4 130.9 102.5 98.0 98.6 102.8 113.4 (r) 102.8 108.3 (r) (r) (r) 104.5 101.6 (r) 98.5 (r) 106.8 (r) 2017 QTR 1 127.2 (r) 101.6 (r) 95.7 (r) 102.1 (r) 122.2 (r) 114.0 (r) 107.2 (r) 104.7 (r) OTR 2 129.9 101.3 (r) 104.3 99.5 (r) 97.6 (r) 103.5 (r) 135.0 (r) 107.0 (r) (r) 105.6 (r) 134.3 (r) 109.1 (r) 108.9 (r) QTR 3 101.6 (r) 105.3 100.3 (r) 110.7 (r) 105.0 (r) 149.6 (r) 108.2 (r) QTR 4 129.9 101.0 102.5 105.7 103.7 105.6 141.1 114.9 111.6 110.0

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

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

SEASONALLY ADJUSTED (1): 2015 = 100

2007	SIC	Other Manuf Rep	_	Engineering Indust		Other Manu	ufacturing	
SUB-SECTION		Wales	UK M	Wales CIJK	UK L	Wales UK CCGM		
Weigh		200	94	247	280	340	245	
	al Averages					0.0		
1999		52.7	98.3	72.0	108.0	66.4	110.4	
2000		57.7	103.4	82.0	112.8	68.4	112.8	
2001		67.7	98.8	82.9	108.4	75.3	109.9	
2002		62.3	93.3	84.7 (r)	103.1	84.5	108.1	
2003		59.9	90.3	86.7 (r)	101.7	86.5	107.5	
2004		58.7	91.9	96.3	104.2	82.1	108.8	
2005		66.3	92.0	95.3	102.7	82.2	107.8	
2006		56.8	94.4	98.6	104.2	76.4	109.8	
2007		61.5	96.4	102.1 (r)	106.8	90.6	110.2	
2008		69.9	93.0	97.9	103.2	97.0	105.7	
2009		74.7	88.6	76.7	83.2	91.3	96.6	
2010		84.7	92.4	89.0	92.4	95.5	98.4	
2011		80.8	97.4	92.7	97.7	93.1	98.5	
2012		83.7	91.2	83.2	100.8	96.5	93.3	
2013		84.5	95.4	93.1	97.7	93.4	94.6	
2014		90.8	100.7	96.7	102.1	93.6	101.0	
2015		100.0	100.0	100.0	100.0	100.0	100.0	
2016		114.0 (r)	106.0	103.1 (r)	101.9	112.3 (r)	102.4	
2016		116.4	112.2	111.6	105.9	116.0	105.1	
1999	QTR 1	51.5	96.0	67.9	106.4	61.8 (r)	108.5	
	QTR 2	47.7	96.4	67.7	106.3	63.8 (r)	109.6	
	QTR 3	53.5	100.6	75.6	108.8	68.7 (r)	112.0	
	QTR 4	58.3	100.4	76.9 (r)	110.4	71.2 (r)	111.3	
2012	QTR 1	86.2	92.3	80.6 (r)	100.4	97.0 (r)	95.1	
	QTR 2	76.2	89.5	80.8	101.4	94.4 (r)	92.7	
	QTR 3	83.6	92.2	83.1 (r)	101.3	95.6 (r)	93.2	
	QTR 4	88.7	90.8	88.4	100.1	98.9 (r)	92.0	
2013	QTR 1	92.1	94.4	91.2 (r)	97.3	96.4 (r)	93.3	
	QTR 2	82.7 (r)	93.1	94.5 (r)	97.0	92.4 (r)	93.3	
	QTR 3	81.5 (r)	96.8	89.0 (r)	98.1	92.1 (r)	95.6	
	QTR 4	81.6	97.2	97.7 (r)	98.2	92.7 (r)	96.4	
2014	QTR 1	85.6	98.8	96.8 (r)	101.2	89.4 (r)	99.4	
	QTR 2	82.5 (r)	99.4	95.3	102.7	91.1	100.2	
	QTR 3	78.6 (r)	102.2	99.6 (r)	101.9	87.5 (r)	102.2	
	QTR 4	116.7	102.2	95.1 (r)	102.7	106.3 (r)	102.0	
2015	QTR 1	92.5	102.0	97.7 (r)	99.5	94.9 (r)	101.7	
	QTR 2	99.2 (r)	101.6	98.4	100.1	96.8 (r)	100.4	
	QTR 3	105.0 (r)	98.2	103.2 (r)	100.1	105.4 (r)	98.8	
0040	QTR 4	103.3 (r)	98.2	100.7 (r)	100.4	102.9 (r)	99.1	
2016	QTR 1	100.7	103.4	95.8 (r)	99.2	103.1 (r)	100.9	
	QTR 2	123.0 (r)	106.4	107.3 (r)	102.7	118.7 (r)	102.8	
	QTR 3	105.7 (r)	106.8	101.9 (r)	102.1	106.5 (r)	102.5	
2047	QTR 4	126.6 (r)	107.3	107.3 (r)	103.7	121.0 (r)	103.6	
2017	QTR 1	136.7 (r)	111.0 (r)	111.7 (r)	105.4 (r)	126.0 (r)	105.0 (r)	
	QTR 2	109.5 (r)	109.7 (r)	108.3 (r)	103.2 (r)	111.2 (r)	104.3 (r)	
	QTR 3	96.7 (r)	113.5 (r)	112.9 (r)	106.9 (r)	105.3 (r)	105.7 (r)	
	QTR 4	122.6	114.4	113.3	108.2	121.5	105.5	

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