



## Short-Term Output Indicators for Wales: July to September 2022

26 January 2023

SFR 7/2023

The short-term output indicators within this release relate to July to September 2022. Estimates for individual quarters can fluctuate, and estimates for Wales are typically more volatile than for the UK, therefore a consideration of longer-term trends and comparisons are recommended.

### Background and Key Points

All three indices increased on an annual basis; the latest four quarters (October 2021 to September 2022) compared to the previous four quarters. On a quarterly basis, Construction showed an increase, whilst Production and Market Services showed decreases. This follows a period of change over the coronavirus (COVID-19) pandemic with the largest quarterly decreases on record being seen in April to June 2020 (which included part of the initial lockdown period) and the subsequent largest increases on record during July to September 2020 (reflecting the easing of restrictions over the summer months).

#### Index of Market Services

- On an annual basis, the Index of Market Services **increased** by 4.3% in Wales and by 6.8% in the UK.
- Compared to the previous quarter, the Index of Market Services **decreased** by 0.6% in Wales and by 0.2% in the UK.

#### Index of Production

- On an annual basis, the Index of Production **increased** by 1.5% in Wales and **decreased** by 3.2% in the UK.
- Compared to the previous quarter, the Index of Production **decreased** by 4.5% in Wales and **decreased** by 2.5% in the UK.

#### Index of Construction

- On an annual basis, the Index of Construction **increased** by 10.2% in Wales and by 5.3% in the UK.
- Compared to the previous quarter, the Index of Construction **increased** by 1.5% in Wales and **decreased** by 0.2% in the UK.

### About this release

The indices of market services, production and construction for Wales are quarterly indices showing short-term movements in the output of companies in the market services, production, and construction sectors within Wales. This release includes data up to September 2022.

### In this release

Quality Information	2
1. Summary of Indices	3
2. Index of Market Services Sector Changes	5
3. Index of Market Services Sub-Indices	6
4. Index of Production Sector Changes	9
5. Index of Production Sub-Indices	11
6. Index of Construction	12
7. Quality Information	13
Appendix A: Sections of SIC	19
Appendix B: Reference Tables	20

## **Important Quality Information**

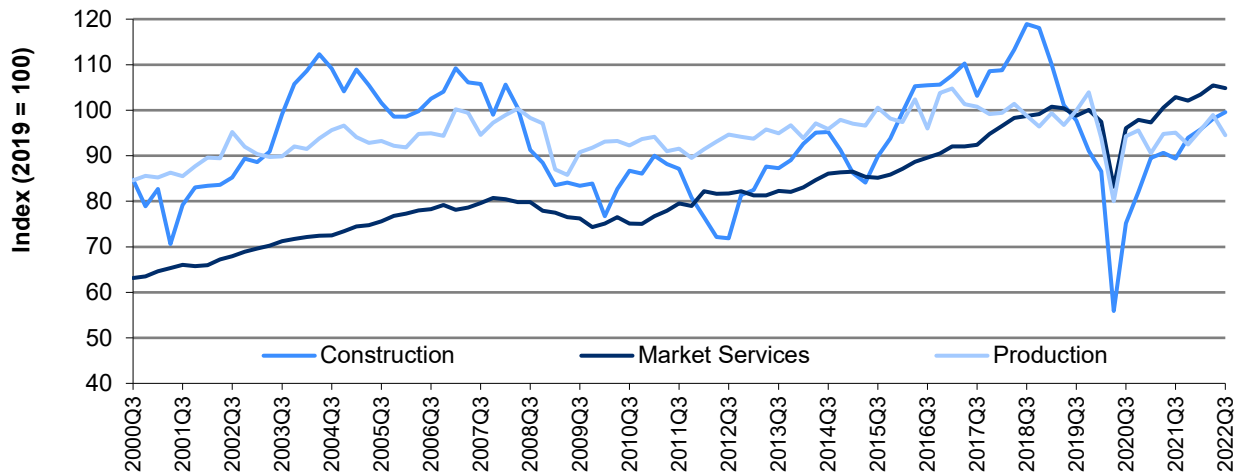
In 2021, ONS discovered that a business within Financial and Insurance activities had been incorrectly classified. Due to the Index of Market Services methodology, reclassifying this individual business would cause a notable and potentially disclosive change within the series that could also potentially be misleading users as to how the Market Services industry was performing. Taking this into consideration, ONS and Welsh Government have made the decision not to carry out the reclassification.

Short-term output indicator and GDP data formed part of the picture of how coronavirus impacted the Welsh economy. Other data sources such as the latest [labour market indicators](#), the [Business Insights and Conditions Survey](#) and estimates of [Welsh international goods trade](#) also give an indication of the scale of the impact (see Key Quality Information).

There is typically a large element of volatility in short-term output indicators and therefore considering long-term trends is recommended.

# 1. Summary of Indices

**Chart 1.1: Summary of Short-Term Output Indicators**



Source: Short-term output indicators, WG and ONS

The Index of Production, the Index of Construction and the Index of Market Services are three separate indices. The Index of Production covers sections B to E of the Standard Industrial Classification (SIC) 2007, the Index of Construction covers section F and the Index of Market Services covers sections G to N and R to T:

<b>Section B: Mining and Quarrying</b>	Index of Production
<b>Section C: Manufacturing</b>	
<b>Section D: Electricity, Gas, Steam and Air Conditioning Supply</b>	
<b>Section E: Water Supply; Sewerage, Waste Management and Remediation Activities</b>	
<b>Section F: Construction</b>	Index of Construction
<b>Section G: Distribution</b>	Index of Market Services
<b>Section H: Transport</b>	
<b>Section I: Accommodation and Food Service Activities</b>	
<b>Section J: Information and Communication Activities</b>	
<b>Section K: Financial and Insurance Activities</b>	
<b>Section L: Real Estate Activities</b>	
<b>Section M: Professional, Scientific and Technical Activities</b>	
<b>Section N: Administrative and Support Service Activities</b>	
<b>Sections R, S &amp; T: Other Services</b>	

The Index of Production is composed of three sub-indices, the largest of which is Manufacturing and accounts for 79.4%. Electricity, Gas and Water Supply accounts for 19.5% and Mining and Quarrying for 1.1%.

The largest components within Manufacturing are Transport Equipment and Food, Beverages and Tobacco accounting for 17.5% and 15.4% of Manufacturing, respectively. The smallest component is Textiles, Wearing Apparel and Leather accounting for 1.6% of Manufacturing.

The largest industries within the Index of Market Services for Wales are Real Estate Activities and Distribution accounting for 24.8% and 21.0% respectively. The smallest industries are Transport (accounting for 6.4%) and Other Services (accounting for 6.8%). For further information on these industry sections and sub-sectors see [Appendix A](#).

Table 1.1 shows the Index of Production, Index of Construction and the Index of Market Services for Wales. Percentage changes are provided to show the change on an annual basis and the latest quarter for Wales and the UK.

**Table 1.1: Seasonally Adjusted Indices of Output for Wales <sup>(1)</sup>**

(2019 = 100)

						Latest percentage change			
	2021		2022			4 qtrs to previous 4 qtrs		qtr to previous qtr	
	Q3	Q4	Q1	Q2	Q3	Wales	UK <sup>(2)</sup>	Wales	UK <sup>(2)</sup>
<b>PRODUCTION</b>	<b>95.1 (r)</b>	<b>92.4 (r)</b>	<b>95.7 (r)</b>	<b>98.9 (r)</b>	<b>94.5</b>	<b>1.5</b>	<b>-3.2</b>	<b>-4.5</b>	<b>-2.5</b>
Manufacturing	91.9 (r)	89.8 (r)	93.9 (r)	95.5 (r)	89.5	1.4	-3.9	-6.3	-2.8
Mining and Quarrying	80.8	85.7	69.1	79.6	71.1	-19.8	0.5	-10.6	-1.3
Electricity, Gas and Water Supply <sup>(3)</sup>	109.0 (r)	103.8	104.5 (r)	114.0 (r)	116.2	2.7	-1.7	1.9	-2.2
<b>CONSTRUCTION</b>	<b>89.3 (r)</b>	<b>94.0 (r)</b>	<b>95.8 (r)</b>	<b>98.1 (r)</b>	<b>99.6</b>	<b>10.2</b>	<b>5.3</b>	<b>1.5</b>	<b>-0.2</b>
<b>MARKET SERVICES</b>	<b>102.9 (r)</b>	<b>102.1 (r)</b>	<b>103.5 (r)</b>	<b>105.4 (r)</b>	<b>104.8</b>	<b>4.3</b>	<b>6.8</b>	<b>-0.6</b>	<b>-0.2</b>
Distribution	106.0	103.8 (r)	109.6 (r)	112.8 (r)	106.3	6.4	-0.5	-5.7	-0.9
Transport	89.2 (r)	88.2 (r)	83.6 (r)	89.2 (r)	91.9	2.8	13.6	3.1	0.3
Accommodation & Food Service Activities	126.4 (r)	111.8	125.4 (r)	124.3 (r)	122.2	34.9	52.0	-1.7	0.0
Information & Communication Activities	99.6	97.0 (r)	100.7 (r)	111.3 (r)	112.2	3.1	8.6	0.8	-0.2
Financial & Insurance Activities	106.6	108.2 (r)	106.9 (r)	109.2 (r)	112.1	-0.2	1.3	2.6	-0.1
Real Estate Activities	97.8	97.0	97.7	98.0	97.9	-1.9	-0.7	0.0	-0.1
Professional, Scientific & Technical Activities	108.9 (r)	112.9 (r)	111.1 (r)	108.4 (r)	109.2	-2.9	8.6	0.7	0.6
Administrative & Support Service Activities	101.6 (r)	107.9 (r)	97.3 (r)	98.5 (r)	101.8	5.3	17.7	3.4	0.5
Other Services	90.5 (r)	94.6 (r)	95.8 (r)	97.2 (r)	98.3	6.8	13.3	1.1	-2.1

Source: Short-term output indicators, WG and ONS

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

(2) Revisions to the series are normally made each quarter to take account both of more recent information and improved seasonal factors.

(3) UK figures for Production and Market Services as published by the Office for National Statistics on 22 December 2022 and UK figures for Construction as published by the Office for National Statistics on 11 November 2022.

(r) Revised data.

## Other sources of economic output statistics

Prior to September 2019, these short-term output indicators (STOI) were the best and most timely output measures available for the Welsh economy. The Office for National Statistics (ONS) have developed experimental statistics that are conceptually similar to STOI called [GDP for Wales and the English regions](#), a [Chief Statistician's update](#) was published in September 2019 which described the new statistics in some more detail. Following publication of these experimental statistics, we publish a [statistical headline](#) which draws out the key points for Wales.

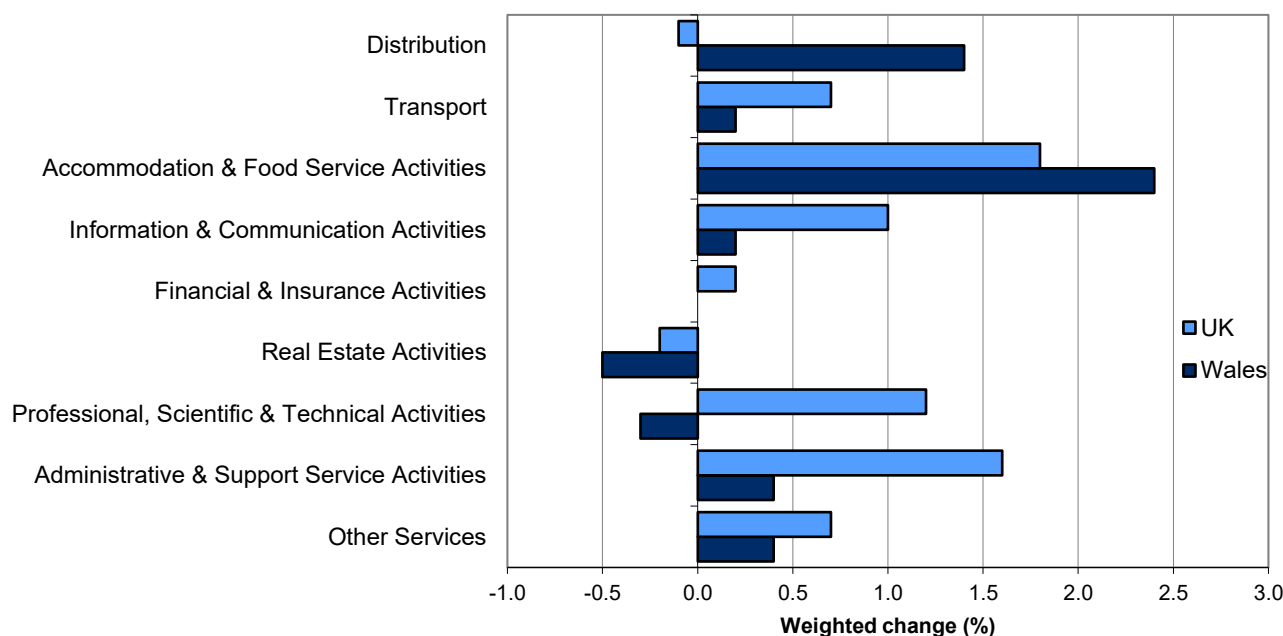
Since the end of 2021, ONS have been publishing [experimental nowcasting estimates of regional GVA](#) (previously produced by [ESCOE](#)). ONS have also published an [article](#), on these model based estimates, which describes the model and compares the estimates with the existing ONS' estimates of UK GDP, regions and countries. More information can be found in the key quality information section of this release.

## 2. Index of Market Services: latest changes

This section examines the outputs of each industry within the Index of Market Services and their respective impact on the overall index. The Index of Market Services accounts for approximately 43.7% of the Welsh economy.

Chart 2.1 shows the impact of changes in the sub-sectors on the index as a whole on an annual basis (based on weighted data).

**Chart 2.1: Contribution to the Index of Market Services annual percentage change (latest four quarters compared with previous four quarters)**

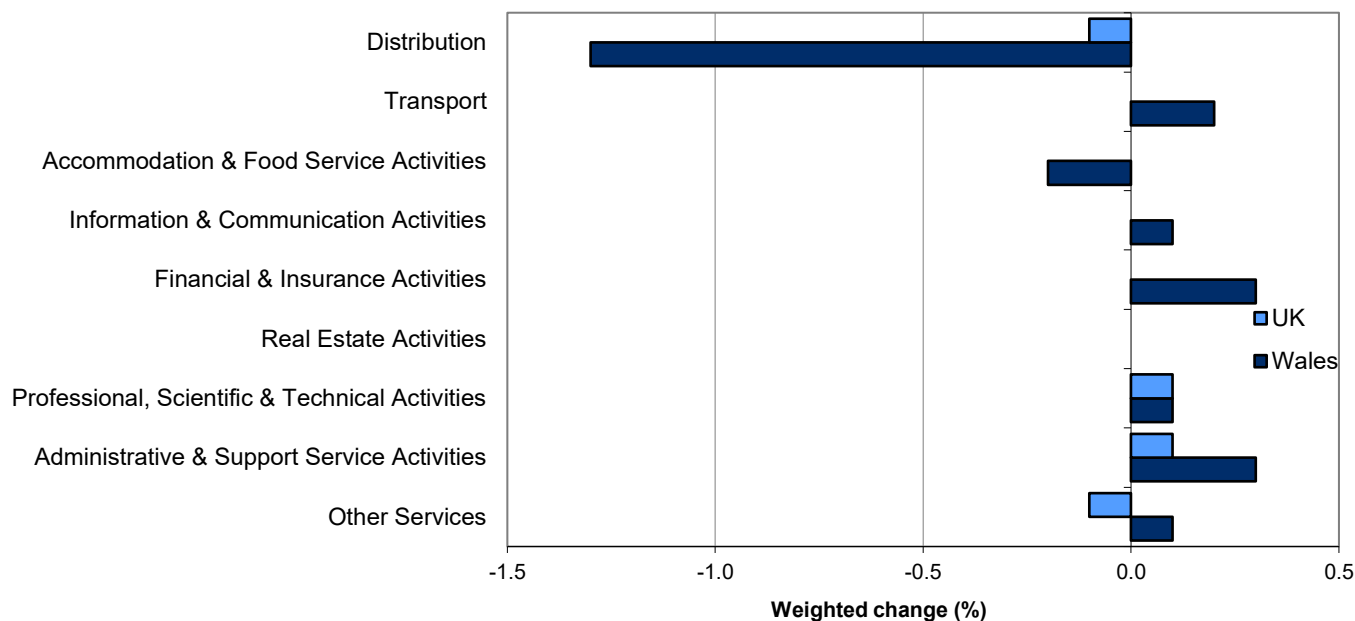


Source: Short-term output indicators, WG and ONS

In Wales, six of the nine sub-sectors increased on an annual basis, while two decreased and one sub-sector was unchanged. Seven of the nine sub-sectors increased in the UK over the same period, with two seeing a decrease.

Two sub-sectors within Wales contributed 1.0% or more to the annual increase seen in Market Services, with Accommodation & Food Service Activities showing the largest growth in both Wales and in the UK.

**Chart 2.2: Contribution to the Index of Market Services quarterly percentage change, current quarter compared with previous quarter**



Source: Short-term output indicators, WG and ONS

In Wales, six of the nine industries increased over the quarter with both Financial & Insurance Activities and Administrative & Support Service Activities showing the joint largest increases (0.3%). In the UK, two of the nine industries experienced increases; Professional, Scientific & Technical Activities and Administrative & Support Service Activities both increased by 0.1%.

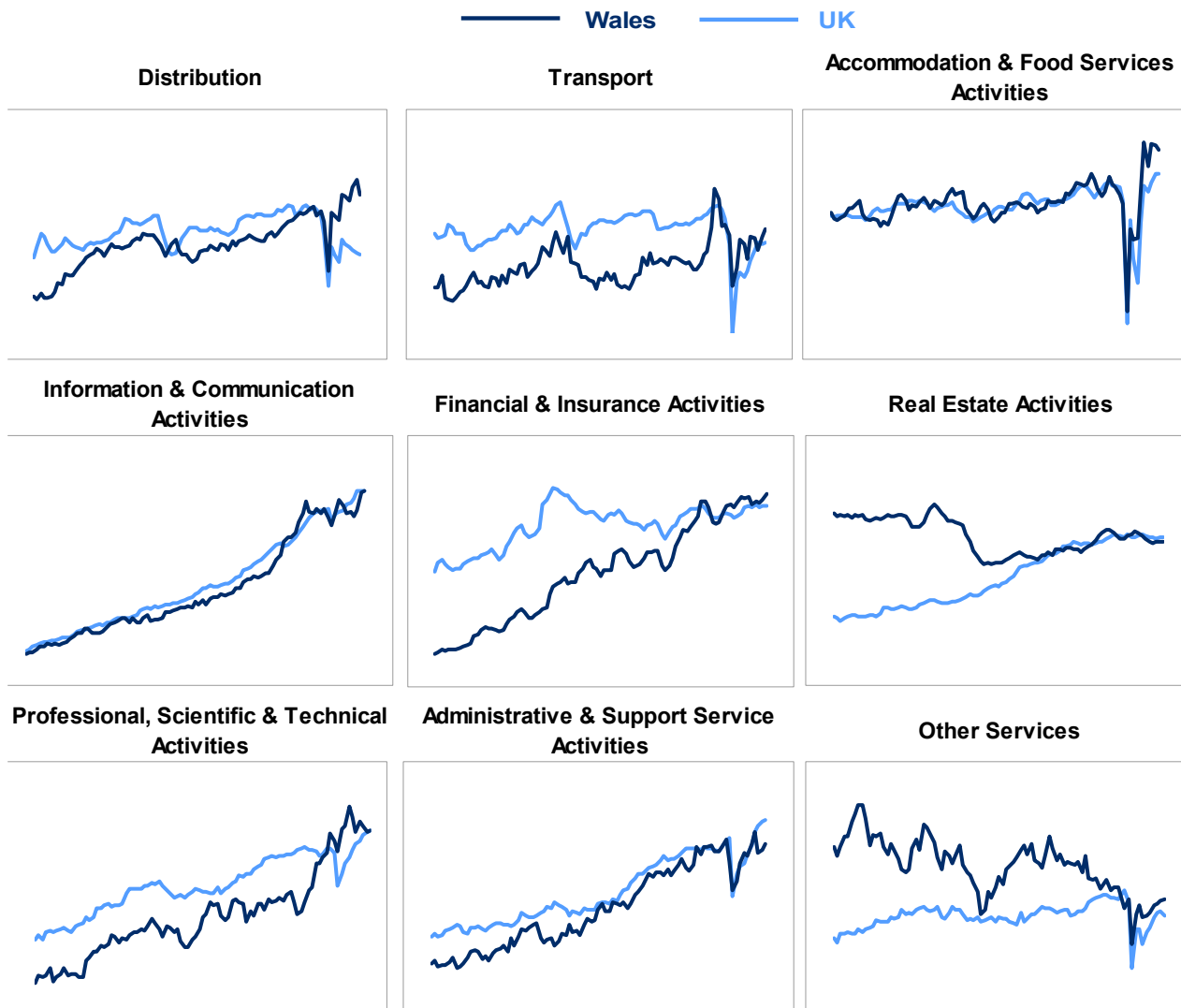
In Wales, two of the nine industries decreased over the quarter with one unchanged, while in the UK, two of the nine industries decreased and five were unchanged.

Estimated changes in Wales are typically larger than for the UK, reflecting the smaller sample sizes in Wales which result in a more volatile series. This is particularly the case in the short-term, but longer-term trends are regarded as reliable.

### 3. Index of Market Services: industry trends

This section shows changes in output since 1999 for the nine industries which comprise the Index of Market Services. The Welsh results for some industries are more volatile than for the UK equivalents because of smaller survey samples. Table B2 in [Appendix B](#) provides the latest annual and quarterly data for the industries and their sub-sectors. Time series for the Index of Market Services industry sectors and sub-sectors are available on [StatsWales](#).

**Chart 3.1: Market services Sub-indices – 1999 Q3 to 2022 Q3, (2019=100)**



Source: Short-term output indicators, WG and ONS

### **Distribution**

The Index of Distribution fell during the 2008-09 recession in Wales and the UK, but both saw an overall increase until the start of the coronavirus pandemic. After the lockdowns were introduced in 2020, the index saw a sudden decrease in both Wales and the UK. However, despite recent decreases, it has generally been increasing since the low point in 2020 Q2.

### **Transport**

There was a significant fall in activity in Wales and across the UK during the 2008-09 recession, with the recovery reaching pre-recession peaks in 2019. There was a sharp increase in the Welsh index in 2019 Q1, however, most of this largely reflects re-classification of business activity and a change in the sample, rather than an actual increase in activity. Following the start of the coronavirus pandemic, the index fell in Wales and the UK, but has since been recovering.

## **Accommodation and Food Service Activities**

Though trends in Wales are more volatile than for the UK as a whole, the Index of Accommodation and Food Service Activities in Wales has generally tracked the UK trend over the long-term. The index was greatly impacted by the coronavirus lockdowns, however rose to the highest on record in 2021 Q3.

## **Information and Communication Activities**

The Index of Information and Communication Activities for both Wales and the UK experienced a small decrease due to the pandemic, however, it was not as notable as for other industries. Overall, there has generally been steady growth in both Wales and the UK since the series began and this index is currently (Q3 2022) estimated as the highest on record for Wales.

## **Financial and Insurance Activities**

Since 1999, the Index of Finance and Insurance Activities for Wales has increased with a broadly stable upward trend. In the UK, the sector increased up to 2008 and, after a decrease to 2010, has changed relatively little since. This index is currently (Q3 2022) estimated as the highest on record for Wales.

## **Real Estate Activities**

Real Estate Activities continues to be one of the sub-sectors least effected by the pandemic. Historical trends in Real Estate Activities have been very different for Wales and the UK. In Wales, the index was broadly flat from 1999 to 2007, before falling substantially during the recession. After a period of recovery, the index has been remained broadly the same since 2015, despite some fluctuations. By contrast, at a UK level Real Estate Activities have generally increased over the whole period.

## **Professional, Scientific and Technical Activities**

Professional, Scientific and Technical Activities in Wales and the UK followed similar upward trends, with Wales generally below the UK until the Welsh index began to rise at the end of 2017. The Welsh index rose above that of the UK in 2019 Q4 and has remained higher until Q2 2022.

## **Administrative and Support Service Activities**

Administrative and Support Service Activities have increased almost in parallel in both Wales and the UK until the pandemic. At the start of the pandemic, both Wales and the UK experienced large decreases, but have generally been recovering since the middle of 2020. Wales has now recovered to above pre-pandemic levels, reaching its highest point in the series in 2021 Q4, in the UK this index is currently (Q3 2022) estimated as the highest on record.

## **Other Services**

Since 1999, the Index of Other Services for Wales has been volatile, with a decreasing trend overall. The UK trend, by contrast, has seen a relatively stable increase up until the start of the pandemic. The index fell due to the pandemic in both Wales and the UK and has not yet recovered to pre-pandemic levels.

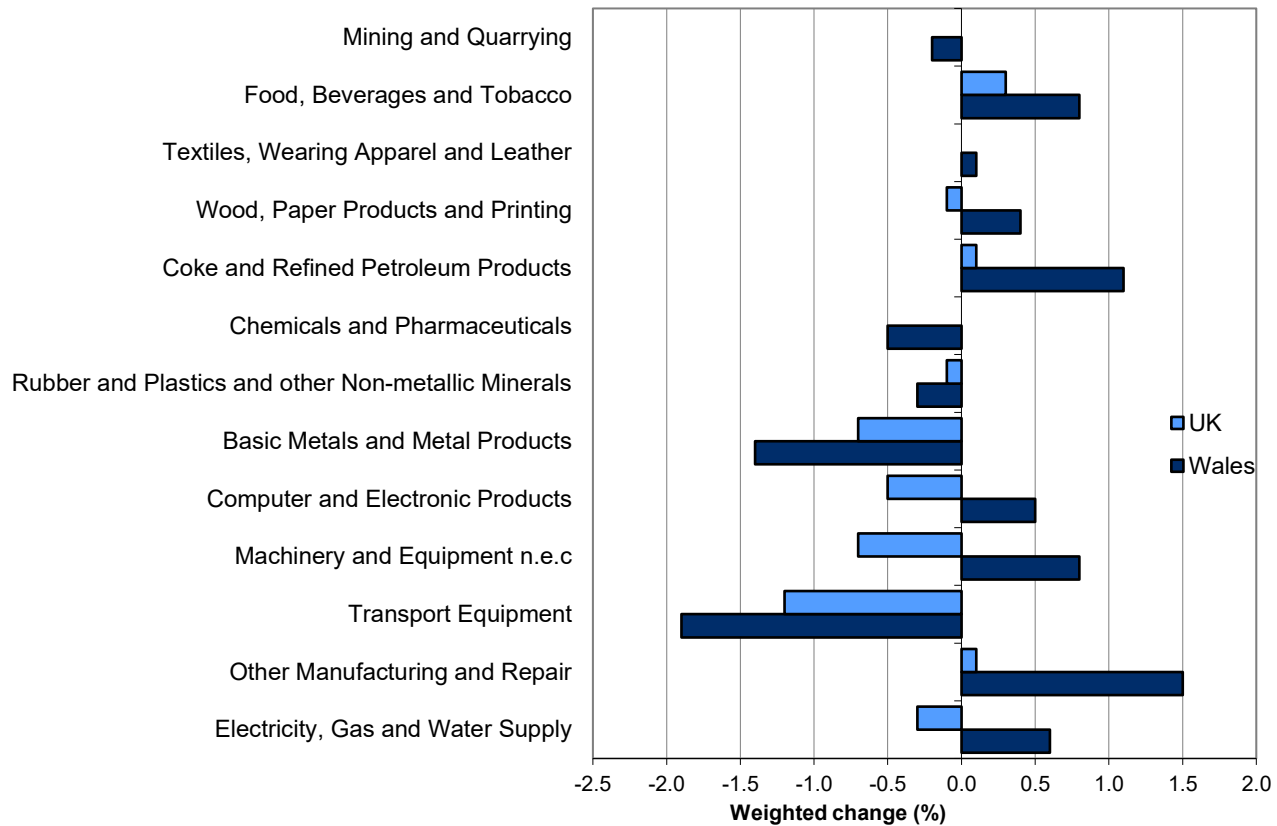


## 4. Index of Production: latest changes

This section examines the outputs of each industry within the Index of Production and their respective impact on the overall index. The Index of Production accounts for approximately 20.6% of the Welsh economy.

Chart 4.1 shows the impact of changes in the sub-sectors on the index as a whole on an annual basis (based on weighted data).

**Chart 4.1: Contribution to the Index of Production annual percentage change (latest four quarters compared with previous four quarters)**

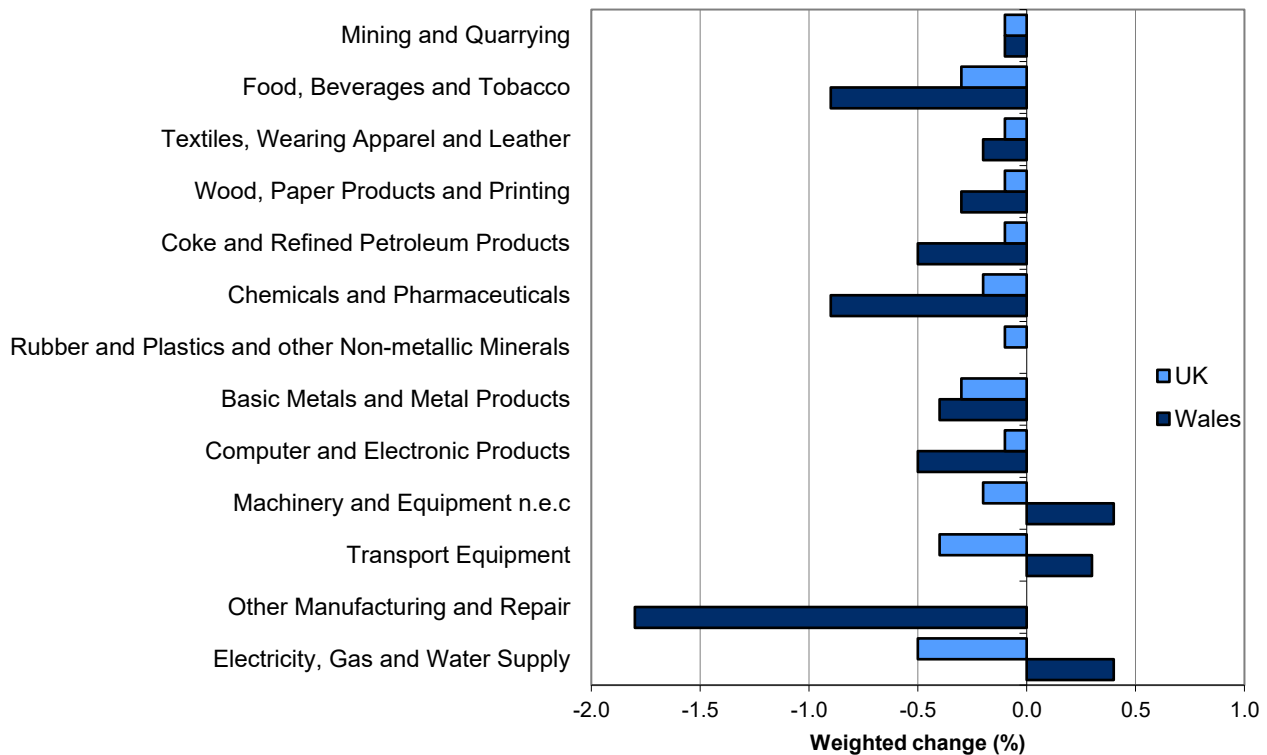


Source: Short-term output indicators, WG and ONS

In Wales, eight of the thirteen industries experienced an increase over the year and five experienced a decrease. Other Manufacturing and Repair experienced the largest increase contributing a weighted change of 1.5% followed by Coke and Refined Petroleum Products with a contribution of 1.1%. Transport Equipment saw the largest decrease (down 1.9%).

In the UK, three industries increased, seven industries decreased, and three remained unchanged. The largest increases were in Food, Beverages and Tobacco (0.3%).

**Chart 4.2: Contribution to the Index of Production quarterly percentage change, current quarter compared with previous quarter**



Source: Short-term output indicators, WG and ONS

Three industries within the Index of Production for Wales showed increases over the quarter, nine industries showed decreases, whilst one industry remained unchanged, the largest increases were in Machinery and Equipment n.e.c (0.4%) and Electricity, Gas and Water Supply (0.4%)

Twelve of the thirteen industries contributed to the decrease in the UK this quarter, and one industry was unchanged.

Estimates for changes in Wales are typically larger than for the UK, reflecting the smaller sample sizes in Wales which result in less stable series. This is particularly the case in the short-term, but longer-term trends are regarded as reliable.

## 5. Index of Production: industry trends

This section shows changes in output since 1999 for the three industries which comprise the Index of Production. The Welsh results can be more volatile than for the UK equivalents because of smaller survey samples.

Table B1 in [Appendix B](#) provides the latest annual and quarterly data for the industries and their sub-sectors. Time series' for the Index of Production and its sub-indices are available on [StatsWales](#).

**Chart 5.1: Production Sub-indices – 1999 Q3 to 2022 Q3, (2019=100)**



### Index of Mining and Quarrying

Activity in Mining and Quarrying remained broadly similar in Wales despite fluctuations around the overall trend between 1999 and 2012. In 2012, there were some large increases before remaining relatively stable until 2016. In 2016 there was a sharp decrease, and the index has remained at that lower level since. For the UK as a whole, output generally fell (with large fluctuations around the trend) until 2013 and, despite variations, has remained broadly similar since.

### Index of Manufacturing

Historically, the Index of Manufacturing has shown a similar trend in Wales and the UK, increasing until the 2008-09 recession, then recovering before a sharp fall at the beginning of the coronavirus pandemic. The manufacturing industry is the main driver of the production industries as it accounts for 79.4% of the Index of Production.

### Index of Electricity, Gas and Water Supply

The Index of Electricity, Gas and Water Supply in both Wales and the UK is volatile, but in Wales, there was a sharp increase in 2012 due to the opening of a new power station in Pembroke. However, output has generally decreased since the end of 2016, which can be attributed to the downgrading in operations of Aberthaw power station. The fall has continued due to the pandemic and in 2020 Q2 the series reached its lowest level since records began. Both the UK and Welsh series have generally been recovering since 2020 Q2.

## 6. Index of Construction

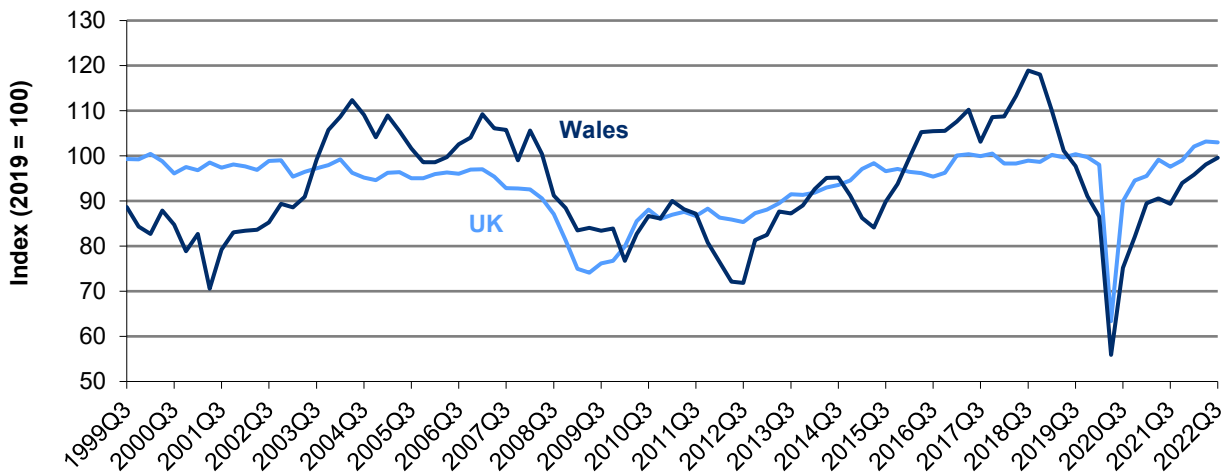
The construction sector accounts for approximately 5.8% of the Welsh economy.

Following the recession of 2008-09, both Wales and the UK saw a fall in construction output, with Wales seeing a larger fall than the UK. Since then, output gradually increased overall and surpassed pre-recession levels. The index in Wales began decreasing at the start of 2019 and then the coronavirus pandemic caused indices for both Wales and the UK to fall to their lowest levels in the series in 2020 Q2. The impact of the coronavirus (COVID-19) pandemic can be seen in the index of construction far greater than the other two indices, however, the index is now higher in both Wales and the UK when compared to pre-pandemic levels.

The Index of Construction increased over the latest quarter in Wales (up 1.5%) and decreased in the UK (down 0.2%) It also rose over the year, with the Welsh index increasing by 10.2% and the UK index increasing by 5.3%.

A time series for the Index of Construction is available on [StatsWales](https://stats.wales.gov.uk/).

**Chart 6.1: Index of Construction**



Source: Short-term output indicators, WG and ONS

## 7. Quality Information

### 7.1 Relevance

This release provides estimates of output in market services, 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 and the UK market services estimates are taken from the Quarterly National Accounts Index of Services release from the ONS. 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.

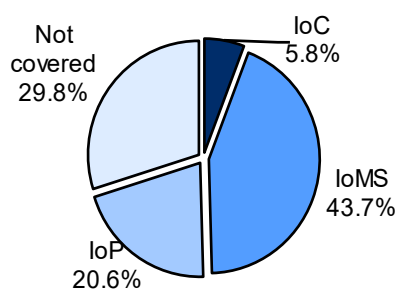
The output indices show the quarterly movements in gross output of the production, construction, and market services sectors in Wales. Gross output is used as a proxy for Gross Value Added (GVA), measured by a variety of data sources since GVA cannot currently be measured.

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.
- Directly collected data from a small additional quarterly survey sent to wholly Welsh finance businesses.

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', which 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, based on 2019 GVA in line with the STOI methodology. Industries not covered include agriculture and fishing industries and the public sector.



Source: Short-term output indicators, Welsh Government and ONS

## 7.2 Accuracy

Due to the impact of COVID-19, some response rates for 2020Q1 and Q2 were much lower than the target response rate and should be treated with caution. Response rates are now in line with those seen prior to the pandemic.

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 on our revisions policy see our [website](#). Table 7.2 shows the revisions and rebasing made (in index points) to the previous quarter's estimates.

**Table 7.2: Comparison of Current and Previous Estimates of 2022 Quarter 2 <sup>(1)</sup>**

	Current	Previous	Revision
Index of Production	98.9	98.8	0.1
Manufacturing	95.5	95.3	0.2
Mining and Quarrying	79.6	79.6	0.0
Electricity, Gas & Water	114.0	114.3	-0.3
Construction	98.1	95.9	2.2
Index of Market Services	105.4	105.3	0.1
Distribution	112.8	113.3	-0.5
Transport	89.2	91.4	-2.2
Accommodation and Food Service Activities	124.3	123.9	0.3
Information and Communication Activities	111.3	110.2	1.1
Financial and Insurance Activities	109.2	107.8	1.4
Real Estate Activities	98.0	98.0	-0.1
Professional, Scientific and Technical Activities	108.4	113.5	-5.1
Administrative and Support Service Activities	98.5	97.2	1.2
Other Services	97.2	90.9	6.3

Source: Short-term output indicators, WG and ONS

(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.

As described in section 7.6, experimental GDP statistics, which are conceptually similar to these Short-term Output Indicators, are available for Wales. Previously comparisons have been made between ONS' experimental GDP figures for Wales and STOI, however until recently ONS had paused updating the time series between Quarter 1 2012 and Quarter 4 2019. The previously paused time series, including industry breakdowns, is set to be updated and released by ONS from November 2022.

## 7.3 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.

## 7.4 Accessibility and clarity

This statistical bulletin and the headline statistics are available on the Welsh Government Statistics [website](#). Additional information on all three indices 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 our website. The equivalent [report for the Index of Market Services](#) can also be found on our website.

## 7.5 Impact of coronavirus on short-term output indicators

The latest estimate for UK gross domestic product (GDP) published by the Office for National Statistics (ONS) for the 2021 calendar year suggests that GDP increased by 7.4% over the year, following a 9.3% decline in 2020. The latest [UK quarterly gross domestic product \(GDP\)](#) for April to June 2022 estimated an increase of 0.2%, resulting in a real GDP level that is estimated to be 0.2% lower than pre-pandemic levels.

There is typically a large element of volatility in short-term output indicators and care should be taken when interpreting the data. Another impact of the pandemic, as described by ONS, has been the impact on data collection which might have a greater impact on the Welsh series. Although, response rates in Wales in 2020 Q3 and Q4 have been at or above the target response rate ([see section 7.2](#)).

Short-term output indicator and GDP data form part of the picture of how coronavirus is impacting the Welsh economy. Other data sources such as the latest [labour market indicators](#), the [Business Insights and Conditions Survey](#) and estimates of [Welsh international goods trade](#) also give an indication of the scale of the impact.

## 7.6 Comparability and coherence

The Office for National Statistics (ONS) developed the [official statistics for GDP for Wales and the English regions](#). These statistics, which are based almost exclusively on VAT records, are conceptually similar to STOI – they estimate changes in the output of businesses over a period of time.

For the first publication of these statistics in September 2019, we published a [statistical headline](#) which draws out the key points for Wales and is updated quarterly. Additionally, in September 2019, we published a [Chief Statistician's update](#) which describes the statistics in some more detail. The GDP statistics have been categorised as 'experimental' for the time being.

The GDP data have a more comprehensive coverage of the economy and are comparable with the other countries and regions of the UK. ONS also believe that the GDP data are likely to be a better reflection of the type of business activity taking place regionally. The short-term output indicators remain the fastest available measures for Wales however, with a three to four-month lag from the reference period, compared with an approximately six-month lag for GDP.

To note, currently ONS have paused updating the time series between Quarter 1 2012 and Quarter 4 2019 to focus on developing methods to improve data quality and minimise the frequency of revisions. The previously paused time series, including industry breakdowns, is set to be updated and released by ONS from November 2022.

## **We want to hear from you**

We want to hear about how you use STOI and your views on its strengths and limitations in light of the new statistics on GDP for Wales. This will help inform a decision about whether both series will be needed indefinitely. Please email [economic.stats@gov.wales](mailto:economic.stats@gov.wales) with your thoughts.

For the time being we will continue to publish STOI alongside GDP to help inform our understanding of their differences and similarities, and their relative strengths and limitations. In theory the benefits of GDP are that they are based on a much larger amount of data, they have full coverage of the economy and, in general, are thought to more accurately classify business activity. STOI meanwhile, has more stable seasonal adjustment (though GDP seasonal adjustment will improve over time) and is more timely.

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 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 Summary Quality Reports for [Index of Market Services](#) and the [Index of Production and Construction](#).

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.

## **7.7 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 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. The designation of these statistics as National Statistics was confirmed in February 2012 following a [full assessment against the Code of Practice](#).

Since the latest review by the Office for Statistics Regulation, we have continued to comply with the Code of Practice for Statistics, and have made the following improvements:

- Eliminated un-necessary tables from bulletin as they are freely available on [StatsWales](#)
- Combined the two releases into one to improve user experience



- Improved visuals and commentary of long-term trends for sub-sectors
- Included comparisons with other conceptually similar statistics such as GDP

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.

## **7.8 Well-being of Future Generations Act (WFG)**

The Well-being of Future Generations Act 2015 is about improving the social, economic, environmental and cultural wellbeing of Wales. The Act puts in place seven wellbeing 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 wellbeing goals, and (b) lay a copy of the national indicators before Senedd Cymru. Under section 10(8) of the Well-being of Future Generations Act, where the Welsh Ministers revise the national indicators, they must as soon as reasonably practicable (a) publish the indicators as revised and (b) lay a copy of them before the Senedd. These national indicators were laid before the Senedd in 2021. The indicators laid on 14 December 2021 replace the set laid on 16 March 2016.

Information on the indicators, along with narratives for each of the wellbeing goals and associated technical information is available in the [Wellbeing 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 wellbeing assessments and local wellbeing plans.

## **7.9 Further details**

### **Links**

This document is available at <https://gov.wales/short-term-output-indicators>

Previous publications of this statistical release contained more extensive tables in Appendix B. All the information contained within these tables can now be found on [StatsWales](#).

### **Next update**

April 2023

### **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](mailto:economic.stats@gov.wales).

## Appendix A: Sections of Standard Industrial Classification<sup>1</sup> 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)	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
H	Transportation and Storage
49-51	Land, water and air transport
52-53	Warehousing and support activities for transportation; postal and courier activities
I	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

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

## Appendix B: Reference Table

Table B1: Index of Production and Index of Construction for Wales <sup>(1)</sup>

SEASONALLY ADJUSTED <sup>(2)</sup> : 2019 = 100																					
2007 STANDARD INDUSTRIAL CLASSIFICATION		Index Weights <sup>(3)</sup>	Annual Indices		2021				2022				Latest percentage change								
					2020		2021		Q2		Q3		Q4		Q1		Q2		Q3		4 qtrs to previous 4 qtrs
Section	Description		2020	(r)	2021	(r)	Q2	(r)	Q3	(r)	Q4	(r)	Q1	(r)	Q2	(r)	Q3	Wales	UK <sup>(4)</sup>	Wales	UK <sup>(4)</sup>
<b>B-E</b>	<b>PRODUCTION INDUSTRIES</b>	<b>1000</b>	<b>90.9</b>	<b>93.2 (r)</b>	<b>94.8 (r)</b>	<b>95.1 (r)</b>	<b>92.4 (r)</b>	<b>95.7 (r)</b>	<b>98.9 (r)</b>	<b>94.5</b>	<b>1.5</b>	<b>-3.2</b>	<b>-4.5</b>	<b>-2.5</b>							
<b>B</b>	<b>Mining and Quarrying</b>	<b>11</b>	<b>93.3 (r)</b>	<b>93.4 (r)</b>	<b>119.1</b>	<b>80.8</b>	<b>85.7</b>	<b>69.1</b>	<b>79.6</b>	<b>71.1</b>	<b>-19.8</b>	<b>0.5</b>	<b>-10.6</b>	<b>-1.3</b>							
<b>C</b>	<b>Manufacturing</b>	<b>794</b>	<b>88.9 (r)</b>	<b>89.9 (r)</b>	<b>90.9 (r)</b>	<b>91.9 (r)</b>	<b>89.8 (r)</b>	<b>93.9 (r)</b>	<b>95.5 (r)</b>	<b>89.5</b>	<b>1.4</b>	<b>-3.9</b>	<b>-6.3</b>	<b>-2.8</b>							
CA	Food, Beverages and Tobacco	154	94.1 (r)	95.8 (r)	94.0 (r)	96.5 (r)	100.7 (r)	103.6 (r)	99.5 (r)	92.3	6.5	2.2	-7.2	-2.4							
CB	Textiles, Wearing Apparel and Leather	16	82.2 (r)	112.2 (r)	122.1 (r)	114.6 (r)	94.2 (r)	154.1 (r)	130.0 (r)	113.6	7.8	-0.9	-12.6	-2.8							
CC	Wood, Paper Products and Printing	69	73.6 (r)	77.0 (r)	73.8 (r)	84.8 (r)	80.9 (r)	83.3 (r)	83.7 (r)	78.4	8.6	-2.5	-6.4	-3.3							
CD	Coke and Refined Petroleum Products	42	77.8 (r)	72.7 (r)	64.3 (r)	95.7 (r)	99.1 (r)	102.7 (r)	102.2 (r)	86.2	46.0	13.2	-15.6	-11.1							
CE-CF	Chemicals and Pharmaceuticals	105	95.8 (r)	88.7 (r)	85.7 (r)	84.8 (r)	87.7 (r)	82.5 (r)	89.0 (r)	78.2	-5.8	-0.1	-12.1	-2.5							
CG	Rubber and Plastics and other Non-metallic Minerals	61	97.6 (r)	110.5 (r)	113.3 (r)	106.6	108.7 (r)	106.2 (r)	101.0 (r)	101.0	-5.4	-2.8	0.1	-2.0							
CH	Basic Metals and Metal Products	100	87.1 (r)	101.9 (r)	105.3 (r)	103.2 (r)	97.2	84.7 (r)	80.5 (r)	75.6	-16.4	-8.9	-6.1	-3.9							
CI-CJ	Computer and Electronic Products	112	96.7 (r)	95.3 (r)	101.0 (r)	95.7 (r)	91.5 (r)	106.5 (r)	108.4 (r)	103.3	5.6	-6.6	-4.7	-1.8							
CK	Machinery and Equipment n.e.c	41	103.9 (r)	120.9 (r)	114.5 (r)	123.7 (r)	130.6 (r)	129.3 (r)	136.6 (r)	148.2	19.7	-10.1	8.5	-3.4							
CL	Transport Equipment	175	68.5 (r)	61.9 (r)	64.0 (r)	64.7 (r)	56.6 (r)	50.2 (r)	50.7 (r)	52.5	-19.5	-11.5	3.5	-4.2							
CM	Other Manufacturing and Repair	125	103.8 (r)	98.6 (r)	104.5 (r)	99.6 (r)	95.5 (r)	125.9 (r)	143.1 (r)	125.4	13.0	1.6	-12.4	-0.5							
CJKLM	Engineering and Allied Industries	328	82.6 (r)	80.7 (r)	82.9 (r)	82.6 (r)	77.7 (r)	79.3 (r)	81.1 (r)	81.8	-2.6	-10.7	0.8	-4.0							
CCGM	Other Manufacturing	255	94.2 (r)	95.6 (r)	98.3 (r)	97.3 (r)	94.7 (r)	109.7 (r)	116.9 (r)	106.8	7.2	-0.9	-8.6	-1.7							
<b>DE</b>	<b>Electricity, Gas and Water Supply <sup>(5)</sup></b>	<b>195</b>	<b>99.0 (r)</b>	<b>106.6 (r)</b>	<b>109.2 (r)</b>	<b>109.0 (r)</b>	<b>103.8</b>	<b>104.5 (r)</b>	<b>114.0 (r)</b>	<b>116.2</b>	<b>2.7</b>	<b>-1.7</b>	<b>1.9</b>	<b>-2.2</b>							
<b>F</b>	<b>CONSTRUCTION</b>	<b>1000</b>	<b>74.9 (r)</b>	<b>90.9 (r)</b>	<b>90.6 (r)</b>	<b>89.3 (r)</b>	<b>94.0 (r)</b>	<b>95.8 (r)</b>	<b>98.1 (r)</b>	<b>99.6</b>	<b>10.2</b>	<b>5.3</b>	<b>1.5</b>	<b>-0.2</b>							

Source: Short-term output indicators, WG 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, CC, 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 22 December 2022 and UK figures for Construction as published by the Office for National Statistics on 11 November 2022.

(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) Revised data.

**Table B2: Index of Market Services for Wales <sup>(1)</sup>**

 SEASONALLY ADJUSTED<sup>(2)</sup>; 2019 = 100

2007 STANDARD INDUSTRIAL CLASSIFICATION		Index Weights <sup>(3)</sup>	Annual Indices		2021				2022				Latest percentage change			
			2020	2021	Q2	(r) Q3	(r) Q4	(r) Q1	(r) Q2	(r) Q3	4 qtrs to previous 4 qtrs		qtr to previous qtr			
Section	Description												Wales	UK <sup>(4)</sup>	Wales	UK <sup>(4)</sup>
<b>IoMS</b>	<b>MARKET SERVICES</b>	<b>1000</b>	<b>93.7</b>	<b>100.7 (r)</b>	<b>100.6</b>	<b>102.9 (r)</b>	<b>102.1 (r)</b>	<b>103.5 (r)</b>	<b>105.4 (r)</b>	<b>104.8</b>			<b>4.3</b>	<b>6.8</b>	<b>-0.6</b>	<b>-0.2</b>
<b>G</b>	<b>Distribution</b>	<b>210</b>	<b>92.0</b>	<b>103.1 (r)</b>	<b>106.5 (r)</b>	<b>106.0</b>	<b>103.8 (r)</b>	<b>109.6 (r)</b>	<b>112.8 (r)</b>	<b>106.3</b>			<b>6.4</b>	<b>-0.5</b>	<b>-5.7</b>	<b>-0.9</b>
45	Wholesale, Retail Sale & Repair of Motor Vehicles	201	81.4	97.9 (r)	105.9 (r)	101.0 (r)	99.1 (r)	111.4 (r)	109.1 (r)	99.5			8.5	-1.0	-8.8	2.1
46	Wholesale Trade except Motor Vehicles	321	88.1	103.0 (r)	102.1 (r)	109.7 (r)	109.3 (r)	111.2 (r)	129.6 (r)	116.4			19.1	0.6	-10.2	-0.8
47	Retail Sales except Motor Vehicles	478	99.0	105.4 (r)	109.8 (r)	105.7 (r)	102.1 (r)	107.7 (r)	103.0 (r)	102.4			-2.3	-1.1	-0.5	-1.8
<b>H</b>	<b>Transport</b>	<b>64</b>	<b>80.8</b>	<b>85.8 (r)</b>	<b>79.7</b>	<b>89.2 (r)</b>	<b>88.2 (r)</b>	<b>83.6 (r)</b>	<b>89.2 (r)</b>	<b>91.9</b>			<b>2.8</b>	<b>13.6</b>	<b>3.1</b>	<b>0.3</b>
49-51	Land, Water & Air Transport	428	65.1	72.8 (r)	68.7 (r)	75.3 (r)	79.6 (r)	85.9 (r)	94.9 (r)	103.6			32.2	23.2	9.1	0.3
52,53	Warehousing & Transport Support Activities; Postal & Courier Activities	572	94.3	97.6 (r)	89.9 (r)	101.7 (r)	97.0 (r)	84.3 (r)	87.5 (r)	86.1			-11.7	7.8	-1.7	0.5
<b>I</b>	<b>Accommodation &amp; Food Service Activities</b>	<b>78</b>	<b>63.1</b>	<b>100.8 (r)</b>	<b>97.5</b>	<b>126.4 (r)</b>	<b>111.8</b>	<b>125.4 (r)</b>	<b>124.3 (r)</b>	<b>122.2</b>			<b>34.9</b>	<b>52.0</b>	<b>-1.7</b>	<b>0.0</b>
55	Accommodation	314	60.9	111.8 (r)	109.1 (r)	148.7 (r)	114.6 (r)	124.2 (r)	140.0 (r)	135.4			26.0	76.8	-3.3	-1.6
56	Food & Beverage Service Activities	686	64.2	95.8 (r)	92.2 (r)	116.1 (r)	110.6	125.9	117.0 (r)	116.1			39.9	44.4	-0.8	0.6
<b>J</b>	<b>Information &amp; Communication Activities</b>	<b>74</b>	<b>98.9</b>	<b>99.6 (r)</b>	<b>98.4 (r)</b>	<b>99.6</b>	<b>97.0 (r)</b>	<b>100.7 (r)</b>	<b>111.3 (r)</b>	<b>112.2</b>			<b>3.1</b>	<b>8.6</b>	<b>0.8</b>	<b>-0.2</b>
JA	Publishing, Audio Visual & Broadcasting Activities	113	90.1	96.6 (r)	92.1 (r)	94.4 (r)	112.4 (r)	107.6 (r)	106.2 (r)	109.0			18.7	9.2	2.6	-2.5
JB	Telecommunications	456	99.1	95.8 (r)	94.0 (r)	94.4 (r)	97.7 (r)	101.5 (r)	111.7 (r)	112.4			8.2	2.0	0.7	0.5
JC	Information Technology & Other Information Activities	431	101.0	104.4 (r)	104.8 (r)	106.4 (r)	92.3 (r)	98.0 (r)	112.2 (r)	112.8			-5.1	12.2	0.5	0.5
<b>K</b>	<b>Financial &amp; Insurance Activities</b>	<b>96</b>	<b>107.3</b>	<b>108.8 (r)</b>	<b>110.6 (r)</b>	<b>106.6</b>	<b>108.2 (r)</b>	<b>106.9 (r)</b>	<b>109.2 (r)</b>	<b>112.1</b>			<b>-0.2</b>	<b>1.3</b>	<b>2.6</b>	<b>-0.1</b>
<b>L</b>	<b>Real Estate Activities</b>	<b>248</b>	<b>101.0</b>	<b>98.5 (r)</b>	<b>99.2</b>	<b>97.8</b>	<b>97.0</b>	<b>97.7</b>	<b>98.0</b>	<b>97.9</b>			<b>-1.9</b>	<b>-0.7</b>	<b>0.0</b>	<b>-0.1</b>
LXOOD	Real Estate Activities excluding OOD	118	95.0	93.7 (r)	94.0 (r)	94.1	93.9 (r)	93.6	95.4 (r)	95.0			-0.4	-4.7	-0.4	-1.0
OOD	Owner Occupied Dwellings	882	101.8	99.1 (r)	99.9	98.3	97.5	98.3	98.3	98.3			-2.1	0.9	0.0	0.2
<b>M</b>	<b>Professional, Scientific &amp; Technical Activities</b>	<b>79</b>	<b>106.5 (r)</b>	<b>114.1 (r)</b>	<b>114.9 (r)</b>	<b>108.9 (r)</b>	<b>112.9 (r)</b>	<b>111.1 (r)</b>	<b>108.4 (r)</b>	<b>109.2</b>			<b>-2.9</b>	<b>8.6</b>	<b>0.7</b>	<b>0.6</b>
<b>N</b>	<b>Administrative &amp; Support Service Activities</b>	<b>83</b>	<b>86.1 (r)</b>	<b>100.4 (r)</b>	<b>95.2 (r)</b>	<b>101.6 (r)</b>	<b>107.9 (r)</b>	<b>97.3 (r)</b>	<b>98.5 (r)</b>	<b>101.8</b>			<b>5.3</b>	<b>17.7</b>	<b>3.4</b>	<b>0.5</b>
<b>RST</b>	<b>Other Services</b>	<b>68</b>	<b>88.5 (r)</b>	<b>90.3 (r)</b>	<b>88.5 (r)</b>	<b>90.5 (r)</b>	<b>94.6 (r)</b>	<b>95.8 (r)</b>	<b>97.2 (r)</b>	<b>98.3</b>			<b>6.8</b>	<b>13.3</b>	<b>1.1</b>	<b>-2.1</b>

Source: Short-term output indicators, WG 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 JC and K.

(3) Where the sections are highlighted in bold; the weights sum to the Index of Market Services (IoMS = 1,000). There may be some apparent slight discrepancies between the constituent items and the total due to rounding.

(4) UK figures as published by the Office for National Statistics on 22 December 2022.

(r) Revised data.