

Statistical bulletin

## GDP monthly estimate, UK: July 2020

Gross domestic product (GDP) measures the value of goods and services produced in the UK. It estimates the size of and growth in the economy.



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## 1. UK GDP grew by 6.6% in July 2020

Figure 1: Gross domestic product (GDP) grew by 6.6% in July 2020, the third consecutive monthly increase, but it has still only recovered just over half of the lost output caused by the coronavirus

#### Monthly index, January 2007 to July 2020

Figure 1: Gross domestic product (GDP) grew by 6.6% in July 2020, the third consecutive monthly increase, but it has still only recovered just over half of the lost output caused by the coronavirus





#### Source: Office for National Statistics - GDP monthly estimate

GDP estimates for July 2020 are subject to <u>more uncertainty than usual</u> as a result of the challenges we faced estimating GDP in the current conditions.

## Statistician's comment

Commenting on today's GDP figures for July, ONS director of economic statistics Darren Morgan said:

"While it has continued steadily on the path towards recovery, the UK economy still has to make up nearly half of the GDP lost since the start of the pandemic.

"Education grew strongly as some children returned to school, while pubs, campsites and hairdressers all saw notable improvements. Car sales exceeded pre-crisis levels for the first time with showrooms having a particularly busy time.

"All areas of manufacturing, particularly distillers and car makers, saw improvements, while housebuilding also continued to recover. However, both production and construction remain well below previous levels."

Monthly gross domestic product (GDP) grew by 6.6% in July 2020 as lockdown measures continued to ease, following growth of 8.7% in June and 2.4% in May and a record fall of 20.0% in April 2020.

July 2020 GDP is now 18.6% higher than its April 2020 low. However, it remains 11.7% below the levels seen in February 2020, before the full impact of the coronavirus pandemic. For more detail on the monthly data, please refer to <u>Section 3</u>.

## 2. GDP fell by 7.6% in the three months to July 2020, with declines across all main sectors of the economy

Figure 2: GDP fell by 7.6% in the three months to July, following two consecutive quarterly falls

UK gross domestic product (GDP) growth, Quarter 1 (Jan to Mar) 2005 until May to July 2020

Notes:

- 1. Q1 refers to Quarter 1 (Jan to Mar), Q2 refers to Quarter 2 (Apr to June), Q3 refers to Quarter 3 (July to Sep), Q4 refers to Quarter 4 (Oct to Dec).
- 2. Rolling three-month estimates are calculated by comparing gross domestic product (GDP) in a three-month period with GDP in the previous three-month period. For example, GDP May to July compared with the previous February to April.

#### Download the data

#### .xlsx

Gross domestic product (GDP) fell by 7.6% in the three months to July 2020 following two consecutive quarterly falls, as government restrictions on movement dramatically reduced economic activity.

Rolling three-month growth is based on output gross value added (GVA). There will therefore be discrepancies in the time series with our quarterly estimates of GDP, which include information on the expenditure and income approaches to measuring GDP.

## 3 . In July, monthly GDP was 11.7% lower than the prepandemic levels seen in February 2020

Monthly gross domestic product (GDP) grew by 6.6% in July 2020, following growth of 8.7% in June 2020. Despite this, the level of output did not fully recover from the record falls seen across March and April 2020 and was still 11.7% below the levels seen in February 2020, before the full impact of the coronavirus (COVID-19) pandemic.

Looking ahead, results from <u>Wave 12</u> of the Business Impact of COVID-19 Survey (BICS), which covered the dates 10 to 23 August 2020, found that of businesses currently trading, 47% reported their turnover had decreased below what is normally expected for August.

Table 1: Breakdown of GDP and its components' growth rates by month

	February 2020	March 2020		-	June 2020		Change in GDP (February 2020 to July 2020)	Rolling three- month growth (May to July 2020)
GDP	0.0%	-6.9%	-20.0%	2.4%	8.7%	6.6%	-11.7%	-7.6%
Index of Services	0.0%	-7.5%	-18.5%	1.5%	7.7%	6.1%	-12.6%	-8.1%
Index of Production	0.4%	-4.3%	-20.4%	6.2%	9.3%	5.2%	-7.0%	-3.5%
Manufacturing	0.9%	-5.2%	-24.6%	8.3%	11.0%	6.3%	-8.7%	-4.4%
Construction	-1.8%	-5.4%	-40.2%	7.6%	23.6%	17.6%	-11.6%	-10.6%
Agriculture	0.0%	-0.9%	-5.7%	1.0%	2.7%	1.1%	-2.0%	-1.1%

Source: Office for National Statistics - GDP monthly estimate

### Notes

- 1. Change in gross domestic product (GDP) refers to the level change from February 2020 to July 2020.
- 2. Rolling three-month estimates are calculated by comparing GDP in a three-month period with GDP in the previous three-month period. For example, GDP May to July compared with the previous February to April.

The monthly growth rate for GDP is volatile. It should therefore be used with caution and alongside other measures, such as the three-month growth rate, when looking for an indicator of the longer-term trend of the economy. However, it is useful in highlighting one-off changes that can be masked by three-month growth rates.

## 4 . The services sector remained 12.6% lower than the level in February 2020, before the main impacts of the coronavirus were seen

Figure 3: All subsectors of services showed an increase in growth in July 2020, but output did not recover to the pre-COVID-19 levels of February 2020

Monthly output (March, April, May, June and July 2020) as a proportion of February 2020, February 2020 output = 100%

Notes:

- 1. Chart shows the March, April, May, June and July output as a proportion of February 2020 where February output equals 100%.
- 2. Public administration and defence output saw marginal positive growth across March, April, May, June and July 2020, so output to February 2020 is over 100%.

## Download the data

#### .xlsx

In July 2020, the services sector grew by 6.1%, following growth of 7.7% in June. The largest positive contributors to this increase were:

- education, which grew by 21.1% as some children returned to school
- wholesale, retail and repair of motor vehicles subsector (in particular, the motor vehicles industry), which recovered to above its February 2020 level after seeing record low levels of output in April and May
- accommodation and food service activities, which grew by 140.8% as lockdown measures eased; however, the level of output was 60.1% lower than its February 2020 level

Despite an increase of 6.1% in services, the level of services output was 12.6% lower than the level in February 2020 before the main impacts of the coronavirus (COVID-19) were seen.

Looking at the rolling three-month growth, services output fell by 8.1% in July 2020, following falls of 19.9% in June, 18.5% in May and 10.5% in April. This was driven by falls in nearly every industry, most notably:

- health, which fell by 23.6% as a result of reduced activity in elective operations and fewer accident and emergency visits
- food and beverage service activities, which fell by 60.1% as a result of the closure of bars and restaurants
- education, which fell by 14.3% as a result of school closures
- accommodation, which fell by 69.2% as a result of the closure of hotels and other short-stay accommodation

## 5 . The production sector remained 7.0% lower than the level in February 2020, before the main impacts of the coronavirus were seen

Figure 4: All sub-sectors of manufacturing showed an increase in growth in July 2020, but output had still not recovered to the pre-COVID-19 levels of February 2020

Monthly output (March, April, May, June and July 2020) as a proportion of February 2020, February 2020 output = 100%

- 1. Chart shows the March, April, May, June and July output as a proportion of February 2020 where February output equals 100%.
- 2. The volatile manufacture of basic pharmaceuticals industry had higher output in April, May, June and July 2020 than February 2020, so the proportion is over 100%.

#### Download the data

#### .xlsx

Production grew by 5.2% in July 2020, with manufacturing growing by 6.3%. The manufacturing sector saw all 13 subsectors increasing, following large falls across March and April 2020. Despite growth in the latest month, production output was 7.0% lower than the level in February 2020, with manufacturing 8.7% lower.

Looking at the rolling three-month growth, output in the production sector fell by 3.5% in July 2020, following falls of 16.9% in June, 15.5% in May and 9.0% in April. This was driven by falls in three out of the four subsectors:

- manufacturing, which fell by 4.4% as a result of 10 out of 13 subsectors falling; the most notable was the manufacture of transport equipment, which fell by 19.1% as <u>many factories remained closed</u>
- electricity, gas, steam and air conditioning supply, which fell by 3.2% as a result of falling industrial demand for electricity caused by the temporary closures of businesses
- water supply, which fell by 0.7% as a result of a decline in industrial and commercial waste, resulting directly from business closures

Mining and quarrying saw growth of 2.8% in the three months to July as quarrying recovered across May, June and July 2020 after a low levels of output in March and April.

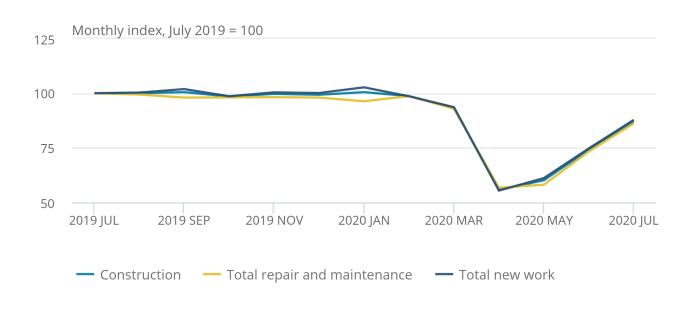
# 6 . The construction sector remains 11.6% lower than the level in February 2020, before the main impacts of the coronavirus were seen

Figure 5: Construction grew by 17.6% in July 2020, however the level of output remains 11.6% lower than February 2020, before the pandemic

Monthly index, July 2019 to July 2020, July 2019 = 100

Figure 5: Construction grew by 17.6% in July 2020, however the level of output remains 11.6% lower than February 2020, before the pandemic

Monthly index, July 2019 to July 2020, July 2019 = 100



#### Source: Office for National Statistics - Construction output in Great Britain

Month-on-month, output in construction grew by 17.6%, following growth of 23.6% in June and 7.6% in May and a record fall of 40.2% in April 2020. This increase was driven by new housing and in particular private new housing (18.1% weight to construction), which grew by 30.3% after large declines in March and April.

Despite growth in the construction sector, output remains 11.6% lower than the level in February 2020 before the full impact of the coronavirus (COVID-19).

On a rolling three-month basis, the construction sector shrank by 10.6% in July 2020, following a record fall of 35% in June. The largest contributors to this fall were private new housing and private housing repair and maintenance, which fell by 17.0% and 17.9%, respectively.

## 7. Things you need to know about this release

## **Coronavirus (COVID-19)**

This release captures the direct effects of the coronavirus (COVID-19) pandemic and the government measures taken to reduce transmission of the virus. We have faced an increased number of challenges in producing monthly and quarterly estimates of UK gross domestic product (GDP) for June. More detailed information on the challenges and the steps taken to mitigate those can be found in <u>Coronavirus and the effects on UK GDP</u>.

As a result of these challenges, GDP estimates for July 2020 are subject to more uncertainty than usual.

It is important to note that while in the short run we have faced challenges to collect the information required to produce the Monthly Business Survey (MBS), response rates have improved since the first published estimate, as shown in Table 2.

Table 2: Breakdown of components response rates for Monthly Business Survey (MBS)

#### May MBS response rates

		First March estimate	Current estimate
	Index of Services	79.0%	94.1%
	Index of Production	71.7%	94.7%
	Construction	54.4%	72.7%
Мау	MBS response rate	s	
		First April estimate	Current estimate
	Index of Services	First April estimate 84.4%	Current estimate 93.1%
	Index of Services Index of Production	84.4%	
		84.4%	93.1%

### May MBS response rates

	First May estimate	Current Estimate
Index of Services	86.4%	92.5%
Index of Production	88.4%	93.6%
Construction	70.4%	81.6%

### June MBS response rates

	First June estimate	Current Estimate
Index of Services	75.2%	88.1%
Index of Production	75.3%	88.5%
Construction	66.0%	79.2%

### July MBS response rates

	First June estimate
Index of Services	77.9%
Index of Production	81.0%
Construction	72.5%

Source: Office for National Statistics - GDP monthly estimate

- 1. Table shows Monthly Business Survey (MBS) turnover response rates.
- 2. Response rate for all months, both questionnaire and turnover, can be found in <u>Index of Production</u>, <u>Index</u> <u>of Services</u>, and <u>Construction</u>.

Construction response rates for March are lower than usual as the MBS was collected by paper before moving online in April. For more information, please refer to the <u>Construction release</u>.

## **Communicating gross domestic product**

<u>Recent analysis</u> explains our latest position on how we are looking to communicate GDP, including how we will continue to acknowledge that "technical" recessions are comprised of at least two consecutive quarters of contracting GDP.

While it is still true that these early estimates are prone to revision, we prefer to focus on the magnitude of the contraction that has taken place following the coronavirus pandemic. It is clear that the contraction in GDP in Quarter 2 (Apr to June) was in the largest recession on record. Our latest estimates show that the UK economy was 11.7% smaller in July than it was in February, the effects of which have been most pronounced in those industries that are most exposed to public health restrictions and the effects of social distancing.

## Blue Book 2020

Each year, we produce an annual update to the UK National Accounts in the <u>Blue Book</u> and <u>Pink Book</u> and the associated releases. As already announced, the Blue Book and Pink Book 2020 consistent datasets will be published on 30 September 2020 as part of the <u>quarterly national accounts</u>.

Details have already been provided on the scope in the article <u>Latest developments and changes to be</u> <u>implemented in Blue Book and Pink Book 2020</u>. Indicative impacts on headline GDP components for the years 1997 to 2018 were published on 20 July 2020 in the article <u>Impact of Blue Book 2020 changes on current price</u> <u>and volume estimates of gross domestic product</u>.

The next monthly publication on 9 October 2020 will incorporate revisions consistent with Blue Book 2020, where the reference year and last base year for all chained volume measure series will be updated to 2018.

## 8. Quality and methodology

Quality and methodology information on strengths, limitations, appropriate uses, and how the data were created is available in the <u>Gross domestic product (GDP) QMI</u>.

## 9. Related links

#### Construction output in Great Britain: July 2020

Bulletin | Released 11 September 2020

Short-term measures of output by the construction industry in Great Britain and contracts awarded for new construction work in Great Britain.

## Index of Production, UK: July 2020

Bulletin | Released 11 September 2020 Movements in the volume of production for the UK production industries: manufacturing, mining and quarrying, energy supply, and water and waste management.

Index of Services, UK: July 2020

Bulletin | Released 11 September 2020 Monthly movements in output for the services industries.

Coronavirus and the impact on output in the UK economy, UK: July 2020

Article | Released 11 September 2020 Analysis of monthly growth for the production, services and construction industries in the UK economy between 2020, highlighting the impact from the coronavirus (COVID-19) pandemic.

#### Coronavirus and the effects on GDP

Article | Released 6 May 2020 How the global coronavirus pandemic and the wider containment efforts are expected to impact on UK gross domestic product (GDP) as well as some of the challenges that National Statistical Institutes are likely to face.

**GVA1** Monthly GDP based on GVA (Gross Value Added) <sup>1</sup> Chained volume indices of gross value added at basic prices <sup>2,3,4,5</sup>

GVA1	Chained volume i	ndices of gross	value added at	basic prices	2,3,4,5							s Industry sectio	easonally adjuste	d 2016=100									
										Wholesale			113 (0102007)										Activities of
	Total GVA at basic prices	Agriculture, forestry and fishing	Total production industries	Mining &	Manufacturing	Electricity gas, steam and air	Water supply, sewerage	Construction 6	Total service industries	and retail: repair of motor vehicles and motorcycles	Transport and storage	Accommodation and food service	Information and Communication	Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Administrative and support a service activities	and	Education	Human health and social work activities	Arts, entertainment and recreation	Other service activities	households as employers, undifferentiated goods and services
Section	A-T	A	B-E	В	C	D	E	F	G-T	G	Й	I	J	К	L	М	Ν	0	Р	Q	R	S	T
2016 weights	1000 YBFR	7 L2KL	138 L2KQ	10 L2KR	100 L2KX	17 L2MW	10 L2N2	60 L2N8	796 L2NC	104 L2NE	43 L2NI	30 L2NQ	63 L2NT	73 L2O6	138 L2OC	75 L201	48 L2OX	47 L2P8	59 L2PA	75 L2PC	15 L2PJ	21 L2PP	4 L2PT
2015	98.1	105.9	98.9	102.0	99.8	96.4	93.3	96.2	98.0	95.9	101.3	98.5	94.8	96.3	98.0	96.7	98.1	102.0	100.8	98.4	101.6	106.5	84.0
2016 2017	100.0 102.0	100.0 105.7	100.0 101.7	100.0 101.7	100.0 102.2	100.0 98.2	100.0 102.0	100.0 106.4	100.0 101.7	100.0 102.5	100.0 101.8	100.0 102.4	100.0 104.8	100.0 99.1	100.0 99.0	100.0 104.5	100.0 104.0	100.0 100.8	100.0 101.2	100.0 101.0	100.0 103.2	100.0 101.1	100.0 101.6
2018 2019	103.7 105.1	102.5 101.4	102.5 101.3	107.1 108.5	103.1 101.3	96.7 95.0	102.5 104.2	106.4 108.5	103.7 105.5	105.7 108.7	103.6 105.9	104.9 107.4	110.1 116.2	98.1 95.1	99.6 100.3	109.7 112.3	108.1 111.4	101.6 103.8	101.9 104.6	101.5 103.1	104.6 105.1	101.6 101.6	105.4 97.8
	ECY2	ECY3	ECY4	ECY5	ECY6	ECY7	ECY8	ECY9	ECYC	ECYD	ECYG	ЕСҮН	ECYI	ECYJ	ECYK	ECYL	ECYP	ECYQ	ECYR	ECYS	ECYT	ECYU	ECYV
2018 Jul Aug	104.0 104.1	101.7 101.8	103.2 103.1	111.1 112.1	103.5 103.3	97.2 97.0	104.3 104.0	107.2 106.8	103.9 104.1	107.2 107.1	104.1 104.5	105.9 104.7	109.1 111.8	97.9 97.6	99.7 99.6	110.2 110.3	108.4 108.4	102.1 102.4	101.8 101.9	101.2 101.5	103.4 103.9	102.5 102.6	106.5 107.7
Sep Oct	104.1 104.4	101.8 102.4 103.0	102.5 102.4	108.0 111.4	103.0 102.5	94.9 96.2	104.0 104.3 103.7	107.6 108.2	104.1 104.2 104.5	106.3 106.9	104.5 105.3	104.7 105.1 106.3	113.3 112.1	97.0 97.4 97.2	99.5 99.8	110.3 110.7 111.4	108.0 110.0	102.4 102.3 102.1	101.9 102.1 102.4	101.8 101.9	103.9 104.9 106.4	102.0 101.0 101.2	107.6 107.6
Nov Dec	104.4 104.6 104.2	103.0 103.0 102.0	102.4 102.2 101.6	107.9 107.3	102.5 102.6 102.1	90.2 95.7 94.6	103.7 103.2 102.9	108.2 107.8 105.7	104.5 104.8 104.5	107.8 106.6	105.5 105.6	100.3 107.2 106.8	112.1 112.9 113.8	97.2 96.9 96.4	99.8 99.7 99.8	111.4 112.0 110.9	110.0 110.1 109.4	102.1 102.1 102.5	102.4 102.7 103.1	101.9 102.0 102.2	105.6 106.8	101.2 100.3 99.3	107.8 106.5 105.8
2019 Jan Feb	104.2 104.7 105.0	102.0 101.7 101.4	101.6 102.5 102.6	107.3 105.2 107.8	102.1 103.2 103.7	94.0 96.7 93.1	102.9 102.1 102.1	105.7 107.9 110.1	104.3 104.8 105.1	108.1 108.3	106.0 106.0	100.8 107.9 108.2	115.0 115.3	96.4 95.7 95.1	99.8 99.8 99.9	10.9 109.9 111.1	110.5 111.4	102.5 103.1 103.5	103.1 103.5 103.8	102.2 102.3 102.4	105.2 105.2	99.3 98.4 99.6	103.8 102.5
Mar Apr	105.0 105.1 104.6	101.4 101.3 101.2	102.6 103.7 100.5	107.8 113.1 108.1	105.0 100.4	93.1 92.4 95.4	102.1 102.5 102.9	108.9 108.9	105.1 105.1 105.0	108.3 108.7 108.8	106.0 106.4 106.3	108.2 107.5 106.6	115.5 114.5 115.9	95.1 94.7 94.4	100.0 100.1	111.1 111.2 110.6	111.4 111.4 110.4	103.7 103.7	103.8 103.9 104.0	102.4 102.4 102.5	105.2 105.2 103.4	99.6 99.3	99.7 98.1
May Jun	104.8 105.0	101.2 101.2 101.3	100.5 101.5 101.4	108.1 108.6 108.0	100.4 101.3 101.2	95.9 96.3	102.9 105.3 105.0	108.9 108.9 107.2	105.0 105.1 105.5	108.8 108.9 108.4	105.7 105.3	106.5 108.9	115.9 115.5 117.1	94.4 94.6 95.1	100.1 100.3 100.2	110.0 110.7 112.4	110.4 111.0 110.5	103.7 103.7 103.6	104.0 104.3 104.6	102.5 102.7 103.1	103.4 103.1 106.1	100.4 101.0	95.4 94.2
Jul Aug	105.4 105.3	101.3 101.4 101.5	101.4 101.2 100.5	107.3 107.6	101.2 101.4 100.6	94.9 93.1	103.0 104.2 105.3	107.2 108.7 108.7	105.9 105.9	108.9 109.2	105.3 107.4 106.2	108.9 108.1 106.8	117.6 116.1	95.5 95.8	100.2 100.2 100.3	112.4 112.9 113.4	110.3 112.2 111.4	103.0 103.7 103.8	104.6 104.7	103.4 103.6	104.0 106.4	101.0 102.4 103.2	96.6 96.5
Sep Oct	105.3 105.5	101.3 101.4 101.3	100.5 100.5 100.9	114.6 106.8	100.0 100.1 100.7	92.7 96.3	105.5 104.7	109.3 107.0	105.8 106.2	109.0 109.6	105.3 106.3	106.0 106.1 106.5	117.5 117.5	95.2 95.6	100.5 100.4 100.6	113.4 113.4 114.4	110.9 111.5	103.9 104.4	104.8 105.0	103.7 103.5	104.0 103.9	103.2 103.8 104.4	96.0 96.3
Nov Dec	105.1 105.3	101.3 101.4	100.9 100.0 99.8	108.8 106.5	99.1 99.2	97.6 95.7	104.7 105.2 105.6	107.0 108.4 108.0	105.8 106.1	108.3 108.1	104.8 105.2	100.5 107.6 107.9	117.5 115.6 116.8	94.6 94.6	100.5 100.8	114.4 113.3 114.1	112.6 113.3	104.4 104.4 104.5	105.5 106.0	103.6 103.7	103.9 107.0 107.2	104.4 104.0 103.3	96.5 97.8
2020 Jan Feb	105.5 105.5	101.5 101.6	100.0 100.3	107.7	99.8 100.7	92.0 91.1	106.7 104.7	109.3 107.3	106.2 106.2	109.4 108.6	105.2 106.4 105.3	107.3 107.1 107.6	113.8 115.1	94.9 95.6	101.0 101.1	113.7 114.6	113.8 112.5	104.6 104.7	106.5 106.6	103.6 103.3	107.2 107.9 107.7	103.3 104.3 104.0	97.9 97.1
Mar Apr	98.2 78.5	100.7 94.9	96.0 76.4	100.1 91.0	95.4 71.9	89.8 81.9	105.4 98.0	107.5 101.5 60.7	98.2 80.1	97.9 70.8	91.8 64.5	73.6	113.7 99.7	95.4 90.6	100.7 98.1	112.2 90.6	100.9 73.2	104.7 104.7 104.9	84.4 61.8	90.7 71.2	93.7 56.3	86.4 50.2	92.5 50.4
May Jun	80.4 87.3	95.8 98.4	81.1 88.7	96.6 104.7	77.9 86.4	81.8 85.2	98.5 102.5	65.3 80.7	81.2 87.5	80.1 101.7	68.3 79.7	10.6 17.8	98.0 104.6	91.9 93.0	97.6 97.3	87.4 92.9	72.4 82.6	105.1 105.1	64.6 68.7	71.9 73.6	50.9 64.5	52.1 55.3	51.7 60.0
Jul Percentage change,	93.1	99.5 vious vear	93.3	105.4	91.9	87.4	105.0	94.9	92.8	108.9	86.7	43.0	107.6	94.2	98.0	96.4	86.2	105.3	83.2	76.8	74.0	78.6	69.5
r ereentage enange,	GDPQ	L3BB	L3BG	L3BH	L3BN	L3DM	L3DQ	L3DW	L3E2	L3E4	L3E8	L3EG	L3EJ	L3EU	L3F2	L3F8	L3FN	L3FW	L3FY	L3G2	L3G9	L3GF	L3GJ
2015 2016	2.2 1.9	1.0 -5.5	1.0 1.1	5.1 -2.0	-0.1 0.2	2.2 3.7	4.6 7.1	4.0 3.9	2.2 2.0	3.9 4.2	0.9 -1.3	4.4 1.5	5.6 5.4	-3.8 3.8	2.8 2.0	4.8 3.4	5.0 1.9	-2.4 -1.9	1.1 -0.8	1.7 1.6	0.8 -1.6	4.0 -6.1	0.3 19.0
2017 2018	2.0 1.6	5.7 -3.0	1.7 0.8	1.7 5.3	2.2 0.9	-1.8 -1.6	2.0 0.5	6.4 0.0	1.7 2.0	2.5 3.2	1.8 1.8	2.4 2.5	4.8 5.1	-0.9 -1.1	-1.0 0.6	4.5 4.9	4.0 3.9	0.8 0.9	1.2 0.7	1.0 0.4	3.2 1.4	1.1 0.4	1.6 3.7
2019 Percentage change, I	1.4 latest 3 months on	-1.1 previous 3 mon	-1.3 ths	1.3	-1.7	-1.8	1.7	1.9	1.8	2.8	2.2	2.4	5.5	-3.0	0.6	2.4	3.1	2.2	2.6	1.6	0.4	0.1	-7.2
	ED3H	ED3I	ED3J	ED3K	ED3L	ED3M	ED3N	ED3O	ED3P	ED3Q	ED3R	ED3S	ED3T	ED3U	ED3V	ED3W	ED3X	ED3Y	ED3Z	ED42	ED43	ED44	ED9R
2018 Jul Aug	0.9 0.8	-0.8 -0.7	0.0 0.7	4.4 4.9	0.3 0.5	-6.7 -1.8	3.2 3.1	2.1 2.0	0.9 0.8	2.7 2.2	2.3 2.2	2.2 1.4	1.2 1.3	-1.0 -1.1	0.1 0.0	1.2 1.0	1.4 1.5	0.8 1.1	0.5 0.3	0.0 0.1	0.4 -0.4	0.8 0.4	1.5 1.9
Sep Oct	0.7	-0.3 0.4	0.6 0.0	3.2 2.3	0.1 -0.5	1.6 1.7	1.8 0.4	1.1 0.7	0.7 0.6	1.4 0.3	1.4 1.0	0.5	2.4 3.1	-1.0 -0.9	-0.1 -0.1	1.3 1.4	0.6 0.7	1.0 0.6	0.3 0.4	0.3 0.5	-0.6 0.8	-0.4 -0.9	2.3 2.1
Nov Dec	0.4 0.3	1.0 0.7	-0.7 -0.9	-0.7 -1.4	-0.8 -0.8	-0.6 -0.9	-0.6 -0.9	0.8 0.0	0.6 0.5	0.2 0.2	0.9	0.9 1.5	2.5 1.4	-0.8 -0.8	0.0	1.5 1.0	0.9 1.5	0.1 0.0	0.6 0.8	0.6 0.5	1.6 2.1	-1.8 -1.7	0.7
2019 Jan Feb	0.2	-0.2 -1.1	-0.6 -0.1	-3.3 -2.1	-0.3 0.3	-0.4 -0.8	-1.2 -1.3	-0.4 0.0	0.4 0.3	0.2 0.7 0.6	0.9	1.9 1.4	1.3 1.7	-0.0 -1.1 -1.4	0.1 0.2	0.1 -0.7	1.0 1.1 1.0	0.3 0.8	0.9 1.0	0.3 0.4 0.4	0.8	-2.2 -1.7	-2.1 -3.0
Mar Apr	0.5 0.4	-1.2 -0.9	0.9	-0.1 2.7	1.5 0.4	-1.5 -2.1	-1.0 -0.2	1.6 2.1	0.4 0.3	1.1 1.0	0.6 0.5	1.0 0.1	1.8 1.2	-1.7 -1.7	0.2	-0.7 0.0	1.0 1.2 1.0	1.2 1.1	1.0 0.8	0.3 0.3	-1.0 -1.2	-1.0 0.2	-4.3 -5.0
May Jun	0.2 -0.1	-0.5 -0.2	-0.3 -1.8	3.0 -0.4	-0.8 -2.9	-0.2	1.2	1.0 -0.6	0.2	1.1 0.4	0.3 -0.3	-0.7 -0.5	0.5	-1.3 -0.5	0.3	0.2 0.4	0.4	0.7	0.6 0.5	0.2 0.4	-1.8 -0.9	0.7 1.0	-6.0 -6.0
Jul Aug	0.2	0.0	-0.9 -0.8	-1.6 -2.1	-1.7 -1.1	2.2 0.2	2.3 1.2	-0.9 -0.6	0.4	0.2	-0.1 0.1	0.4 1.0	1.3 1.5	0.3 1.0	0.2 0.1	0.9 1.9	0.2 0.4	0.0	0.6 0.5	0.6 0.8	-0.2 1.6	1.8 2.4	-4.7 -2.0
Sep Oct	0.5	0.2	-0.3 -0.7	1.5 1.5	-0.3 -0.8	-2.4 -1.7	0.6	0.5	0.6 0.4	0.0 0.3 0.4	0.5 -0.2	-0.3 -1.3	0.8	0.9 0.5	0.1 0.2	1.8 1.5	0.4 0.8 0.0	0.0 0.1 0.4	0.4 0.3	0.8 0.5	0.6 0.3	2.9 2.5	0.5 0.9
Nov Dec	0.0	-0.1 -0.1	-0.6 -0.5	2.2	-1.1 -1.0	0.8	0.3 0.2	0.0 -1.0	0.1 0.1	0.1 -0.3	-0.8 -0.8	-1.1 0.3	-0.1 -0.4	-0.4 -0.6	0.3	0.7 0.6	0.3 0.9	0.5 0.6	0.5 0.7	0.2 0.0	-0.5 1.1	1.8 0.8	0.5 0.5
2020 Jan Feb	0.0 0.1	0.0 0.1	-0.7 -0.4	-1.8 -2.6	-1.1 -0.1	1.1 -2.8	0.6 0.5	0.2 -0.1	0.1	-0.6 -0.3	-0.4 0.2	1.0 0.7	-1.4 -1.4	-0.9 -0.1	0.3 0.4	0.0 0.4	1.8 1.4	0.5 0.3	1.1 1.2	0.0 0.0	2.5 2.5	0.1 -0.2	1.2 1.4
Mar Apr	-2.2 -10.7	-0.1 -2.3	-0.4 -1.5 -9.0	-2.0 -2.1 -7.6	-0.1 -1.1 -10.1	-5.8 -7.9	0.4 -3.0	-1.7 -17.3	-2.3 -10.5	-0.5 -3.1 -14.9	-4.1 -17.3	-10.4 -40.7	-2.1 -5.1	0.4 -0.9	0.3 -0.8	-0.4 -6.9	-3.0 -15.6	0.2 0.2	-6.0 -20.5	-4.2 -14.7	-2.7 -20.0	-5.4 -22.8	-1.1 -17.9
May Jun	-18.7 -20.4	-2.3 -4.3 -4.8	-15.5 -16.9	-10.6 -7.3	-18.2 -20.2	-9.1 -8.8	-4.8 -5.6	-29.9 -35.0	-18.5 -19.9	-23.7 -20.0	-29.1 -30.0	-70.8 -86.7	-9.9 -11.8	-0.3 -2.5 -3.7	-2.2 -3.2	-15.2 -20.4	-27.4 -30.2	0.2 0.3 0.4	-33.9 -34.4	-24.7 -27.2	-37.8 -44.5	-39.4 -46.5	-33.6 -43.6
Jul	-7.6	-1.1	-3.5	2.8	-4.4	-3.2	-0.7	-10.6	-8.1	4.9	-10.3	-62.7	-5.6	-0.9	-2.4	-12.9	-15.8	0.4	-14.3	-16.2	-26.5	-22.7	-24.5

 1 The GVA output is designated as a National Statistic.
 Sources: For further information on these data please telephone

 2 Indices reflect values measured at basic prices, which exclude "taxes less subsidies on products".
 01633 456724 or E-mail gdp@ons.gov.uk

 3 Estimates cannot be regarded as accurate to the last digit shown.
 01633 456724 or E-mail gdp@ons.gov.uk

 4 Any apparent inconsistencies between the index numbers and the percentage changes shown in these tables are due to rounding.
 For further information on these data please telephone

 5 A complete run of data is available on the ONS website.
 Monthly data from the construction survey are only available from January 2010, therefore the data prior to this period are derived using statistical methods from the available quarterly data, and should therefore be treated with some caution.

## **GVA2** Monthly GDP based on GVA (Gross Value Added) <sup>1</sup> Chained volume indices of gross value added at basic prices <sup>2,3,4,5</sup>

												Industry sectio	ns (SIC2007)										
	Tatal									Wholesale			( /			D ( ) )							Activities of
	Total GVA at	Agriculture,	Total			Electricity	Water supply,		Total	and retail: repair of		Accommodation and food	Information	Financial		Professional, scientific	Administrative and support ad	Public ministration		Human health	Arts,	Other	household as employers
	basic	forestry and	production	Mining &		gas, steam	sewerage		service	motor vehicles	Transport	service	and	and insurance	Real estate	and technical	service	and		and social	entertainment	service	undifferentiated
0	prices	fishing	industries	quarrying	Manufacturing	and air	etc	Construction 6	industries	and motorcycles	and storage	activities	Communication	activities	activities	activities	activities		Education		and recreation	activities	goods and services
Section 2016 weights	A-T 1000	A 7	B-E 138	<u>В</u> 10	C 100	D 17	E 10	F 60	G-T <b>796</b>	G 104	H 43	30	G3	73	 138	M 75	N 48	0 47	P 59	Q 75	R 15	<u>s</u> 21	4
2010 Weights		,	130	10	100		10		750	104	40			15	100	15		71		15	15	41	
Percentage change, lat																							
	ED9T	ED9U	ED9V	ED9W	EDGQ	EDGR	EDGS	EDGT	EDGU	EDGV	EDGW	EDGX	EDGY	EDGZ	EDHA	EDHB	EDHC	EDHD	EDHE	EDHF	EDHG	EDHH	EDHI
2018 Jul Aug	1.8 2.0	-3.6 -4.0	1.5 1.7	4.9 6.5	1.9 1.8	-4.4 -2.3	2.9 3.6	0.9 0.8	2.0 2.1	4.1 4.0	2.4 2.9	2.4 2.6	3.7 4.2	-1.2 -1.3	0.9 0.8	5.0 5.0	4.3 4.4	0.7 1.2	0.6 0.7	-0.2 0.1	1.9 1.7	1.2 1.1	1.2 1.7
Sep	1.9	-4.1	1.1	6.9	1.0	-2.3	2.9	0.8	2.1	4.0	2.3	2.0	5.5	-1.3	0.8	4.9	3.7	1.6	0.8	0.4	1.4	0.0	2.3
Oct	1.9	-3.6	0.3	5.6	0.0	-2.1	2.5	1.4	2.3	3.6	2.8	3.6	5.8	-1.1	0.8	4.9	3.6	1.5	1.0	0.9	1.8	-0.8	4.2
Nov	1.9	-2.9	-0.5	2.3	-0.7	-2.4	1.8	1.6	2.4	3.7	3.0	4.5	5.8	-1.1	0.7	5.0	3.4	1.3	1.3	1.3	2.2	-1.0	5.0
Dec	1.8	-2.5	-0.9	8.2	-1.4	-3.1	1.3	0.0	2.4	3.9	3.3	4.5	5.5	-1.3	0.6	4.8	3.1	1.3	1.7	1.4	2.3	-0.8	5.5
2019 Jan	1.6	-2.4	-0.7	7.0	-1.3	-2.4	1.6	-0.7	2.2	4.2	3.6	4.4	6.1	-2.1	0.5	3.3	2.6	1.6	2.1	1.2	2.0	-1.7	3.9
Feb Mar	1.7 2.1	-2.2 -1.7	-0.6 0.1	9.0 6.5	-0.9 0.4	-4.3 -6.0	2.0 2.1	0.5 3.5	2.2 2.3	4.2 4.8	3.9 4.5	4.7 4.8	7.0 7.1	-3.1 -4.0	0.5 0.4	2.8 2.6	3.2 4.2	2.1 2.6	2.4 2.6	1.1 1.1	2.0 1.6	-1.7	2.1 -0.9
Apr	2.1	-1.7	-0.4	6.5 6.1	-0.1	-0.0 -7.4	2.1	3.5 4.4	2.3	4.0	4.5	4.0	7.1	-4.0 -4.5	0.4	2.0	4.2	2.6	2.6	1.1	0.7	-2.3 -2.2	-0.9 -3.6
May	1.7	-1.3	-0.4	5.0	-0.7	-3.5	2.4	3.8	1.9	4.2	4.1	2.9	6.2	-4.4	0.5	2.0	3.8	2.7	2.5	1.2	-0.5	-2.5	-6.5
Jun	1.4	-1.0	-1.2	1.1	-2.1	1.0	2.0	2.1	1.8	3.1	2.8	2.6	6.8	-4.0	0.5	2.1	2.9	2.4	2.6	1.6	-0.4	-2.2	-8.5
Jul	1.3	-0.7	-1.3	0.0	-2.1	1.3	1.2	1.4	1.8	2.2	2.3	2.4	7.1	-3.2	0.5	2.4	3.0	2.0	2.7	1.8	0.2	-1.3	-9.5
Aug	1.3	-0.4	-2.0	-2.0	-2.4	-1.5	0.5	1.1	1.8	2.0	2.0	2.5	6.4	-2.5	0.5	2.9	2.7	1.6	2.7	2.0	1.5	-0.5	-10.1
Sep	1.2	-0.5	-2.1	-0.5	-2.5	-2.9	0.8	1.6	1.7	2.0	1.8	1.7	5.1	-2.1	0.7	2.6	3.0	1.5	2.7	2.0	0.7	1.1	-10.1
Oct	1.1	-1.0	-1.9	-0.8	-2.4	-2.1	1.1	0.7	1.6	2.3	1.1	1.0	4.1	-1.9	0.8	2.6	2.2	1.7	2.6	1.9	-0.3	2.2	-10.6
Nov	0.9	-1.4	-1.8	0.9	-2.7	-0.1	1.4	0.3	1.4	1.8	0.3	0.5	3.6	-2.1	0.9	2.1	2.1	2.0	2.6	1.6	-0.6	3.2	-10.2
Dec	0.9 0.8	-1.3 -0.8	-1.8 -2.1	-1.4 0.8	-2.7 -3.2	1.1 -0.6	1.9 3.0	0.5 1.3	1.4 1.3	1.4 1.0	0.0 -0.2	0.5	3.3 1.3	-2.0 -1.7	0.9 1.0	2.2 2.5	2.4 2.9	2.2 1.9	2.7 2.8	1.5	-0.3 1.4	3.6 4.6	-9.1 -7.5
2020 Jan Feb	0.8	-0.8	-2.1	0.8	-3.2 -3.0	-0.6	3.0	0.3	1.3	0.9	-0.2	0.2 -0.1	0.5	-1.7 -0.8	1.0	2.5 3.2	2.9	1.9	2.8	1.4 1.2	1.4	4.0 4.8	-7.5 -6.1
Mar	-1.8	-0.2	-4.1	-3.4	-5.0	-3.3	3.3	-2.7	-1.4	-2.8	-4.7	-10.9	-0.6	0.2	1.0	2.5	-1.9	1.2	-4.4	-3.1	-2.0	-1.0	-6.0
Apr	-10.4	-2.2	-11.1	-9.3	-13.3	-6.5	0.2	-17.8	-9.7	-14.9	-17.9	-40.7	-5.0	-0.9	0.0	-4.7	-14.0	1.1	-18.9	-13.7	-17.9	-19.4	-20.0
May	-18.3	-4.0	-17.1	-12.8	-20.0	-10.7	-2.8	-30.4	-17.7	-23.8	-29.5	-70.6	-10.0	-2.0	-1.4	-12.7	-25.9	1.1	-32.5	-24.0	-35.6	-36.9	-33.6
Jun	-21.7	-4.8	-18.8	-10.0	-22.0	-13.5	-4.5	-36.4	-21.2	-22.5	-33.0	-88.1	-13.2	-3.0	-2.5	-18.8	-31.2	1.3	-37.6	-29.7	-45.1	-47.6	-43.6
Jul	-17.3	-3.4	-13.5	-5.3	-15.7	-11.4	-2.7	-25.8	-17.4	-10.9	-26.3	-77.9	-11.4	-2.1	-2.6	-17.7	-27.7	1.5	-30.9	-28.1	-39.5	-38.8	-36.7
Percentage change, lat	test month on pre	evious month																					
	ECYX	ECYY	ECYZ	ECZ2	ECZA	ECZC	ECZD	ECZE	ECZG	ECZK	ECZN	ECZT	ECZU	ED2G	ED2H	ED2I	ED2J	ED2K	ED2L	ED2M	ED2N	ED2O	ED2P
2018 Jul	0.3	-0.2	0.3	4.4	-0.3	3.1	-0.3	0.1	0.0														
Aug	0.1			4.4					0.3	1.1	0.2	0.6	0.1	-0.4	0.0	1.3	-0.2	0.4	0.1	0.0	-1.2	-0.5	1.1
0	0.0	0.1	-0.2	0.9	-0.2	-0.2	-0.2	-0.3	0.2	-0.1	0.3	-1.2	2.5	-0.2	-0.1	0.1	0.0	0.2	0.1	0.2	0.5	0.2	1.2
Sep	0.0	0.6	-0.2 -0.6	0.9 -3.6	-0.2 -0.2	-0.2 -2.2	-0.2 0.2	-0.3 0.8	0.2 0.0	-0.1 -0.7	0.3 0.1	-1.2 0.4	2.5 1.3	-0.2 -0.3	-0.1 -0.1	0.1 0.3	0.0 -0.3	0.2 -0.1	0.1 0.2	0.2 0.3	0.5 0.9	0.2 -1.6	1.2 -0.1
Oct	0.3	0.6 0.6	-0.2 -0.6 -0.1	0.9 -3.6 3.1	-0.2 -0.2 -0.5	-0.2 -2.2 1.3	-0.2 0.2 -0.5	-0.3 0.8 0.5	0.2 0.0 0.3	-0.1 -0.7 0.5	0.3 0.1 0.7	-1.2 0.4 1.1	2.5 1.3 -1.1	-0.2 -0.3 -0.1	-0.1 -0.1 0.2	0.1 0.3 0.7	0.0 -0.3 1.8	0.2 -0.1 -0.2	0.1 0.2 0.3	0.2 0.3 0.2	0.5 0.9 1.4	0.2 -1.6 0.2	1.2 -0.1 0.0
Oct Nov		0.6 0.6 0.0	-0.2 -0.6 -0.1 -0.2	0.9 -3.6 3.1 -3.1	-0.2 -0.2 -0.5 0.1	-0.2 -2.2 1.3 -0.5	-0.2 0.2 -0.5 -0.6	-0.3 0.8 0.5 -0.4	0.2 0.0 0.3 0.2	-0.1 -0.7	0.3 0.1	-1.2 0.4	2.5 1.3 -1.1 0.7	-0.2 -0.3 -0.1 -0.4	-0.1 -0.1 0.2 -0.1	0.1 0.3 0.7 0.5	0.0 -0.3 1.8 0.1	0.2 -0.1 -0.2 0.0	0.1 0.2 0.3 0.3	0.2 0.3	0.5 0.9 1.4 -0.7	0.2 -1.6	1.2 -0.1 0.0 -1.0
Oct	0.3 0.1	0.6 0.6	-0.2 -0.6 -0.1	0.9 -3.6 3.1	-0.2 -0.2 -0.5	-0.2 -2.2 1.3	-0.2 0.2 -0.5	-0.3 0.8 0.5	0.2 0.0 0.3	-0.1 -0.7 0.5 0.9	0.3 0.1 0.7 0.2	-1.2 0.4 1.1 0.9	2.5 1.3 -1.1	-0.2 -0.3 -0.1	-0.1 -0.1 0.2	0.1 0.3 0.7	0.0 -0.3 1.8	0.2 -0.1 -0.2	0.1 0.2 0.3	0.2 0.3 0.2 0.1	0.5 0.9 1.4	0.2 -1.6 0.2 -0.9	1.2 -0.1 0.0
Oct Nov Dec	0.3 0.1 -0.4	0.6 0.6 0.0 -1.0	-0.2 -0.6 -0.1 -0.2 -0.5	0.9 -3.6 3.1 -3.1 -0.6	-0.2 -0.2 -0.5 0.1 -0.5	-0.2 -2.2 1.3 -0.5 -1.2	-0.2 0.2 -0.5 -0.6 -0.3	-0.3 0.8 0.5 -0.4 -1.9	0.2 0.0 0.3 0.2 -0.2	-0.1 -0.7 0.5 0.9 -1.1	0.3 0.1 0.7 0.2 0.1	-1.2 0.4 1.1 0.9 -0.4	2.5 1.3 -1.1 0.7 0.9	-0.2 -0.3 -0.1 -0.4 -0.5	-0.1 -0.1 0.2 -0.1 0.1	0.1 0.3 0.7 0.5 -1.0	0.0 -0.3 1.8 0.1 -0.7	0.2 -0.1 -0.2 0.0 0.3	0.1 0.2 0.3 0.3 0.3	0.2 0.3 0.2 0.1 0.1	0.5 0.9 1.4 -0.7 1.1	0.2 -1.6 0.2 -0.9 -0.9	1.2 -0.1 0.0 -1.0 -0.7
Oct Nov Dec 2019 Jan	0.3 0.1 -0.4 0.5 0.3 0.1	0.6 0.0 -1.0 -0.3 -0.3 -0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1	0.9 -3.6 3.1 -3.1 -0.6 -2.0	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 2.1	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.0 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2	0.1 0.2 0.3 0.3 0.3 0.4 0.3 0.1	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9	1.2 -0.1 0.0 -1.0 -0.7 -1.9 -1.3 -2.7
Oct Nov Dec 2019 Jan Feb Mar Apr	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5	0.6 0.0 -1.0 -0.3 -0.3 -0.1 -0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 2.1 -1.1 0.0	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4 0.1	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.0 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4	1.2 -0.1 0.0 -1.0 -0.7 -1.9 -1.3 -2.7 -1.6
Oct Nov Dec 2019 Jan Feb Mar Apr May	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2	0.6 0.6 0.0 -1.0 -0.3 -0.3 -0.1 -0.1 0.0	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 2.1 -1.1 0.0 0.1	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.1	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.1 0.2	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.2	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2	1.2 -0.1 0.0 -1.0 -1.7 -1.9 -1.3 -2.7 -1.6 -2.7
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2	0.6 0.0 -1.0 -0.3 -0.3 -0.1 -0.1 0.0 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 1.3 2 1.0 -0.1	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1 0.4	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.4 0.1 -0.5	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.5	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0	0.1 0.2 0.3 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.1 0.0 0.0 0.2 0.4	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6	1.2 -0.1 0.0 -1.0 -0.7 -1.9 -1.3 -2.7 -1.6 -2.7 -1.2
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jun	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2	0.6 0.0 -1.0 -0.3 -0.3 -0.1 -0.1 0.0 0.1 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4 -0.7	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1 0.4 0.4	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.4 0.1 0.1 0.1 0.1 0.4	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.5 0.4	-0.1 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.2 0.4 0.3	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4	1.2 -0.1 0.0 -1.0 -0.7 -1.9 -1.3 -2.7 -1.6 -2.7 -1.2 2.6
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1	0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.0 0.1 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.7	0.9 -3.6 3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4 -0.7 1.1	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1 0.4 0.4 -0.1	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4 0.1 0.1 -0.5 0.4 0.3	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8 -1.3	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.2 0.4 0.3	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 0.5	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0 0.1	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.2 0.4 0.3 0.2	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.8	1.2 -0.1 0.0 -1.0 -1.9 -1.3 -2.7 -1.6 -2.7 -1.2 2.6 -0.1
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1 0.0	0.6 0.0 -1.0 -0.3 -0.3 -0.1 -0.1 0.0 0.1 0.1 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.7 0.0	0.9 -3.6 3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5	-0.2 -0.5 -0.5 -0.1 -0.5 -1.1 -0.5 -1.2 -4.3 -0.9 -0.1 -0.2 -0.8 -0.4	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4 -0.7 1.1 0.1	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1 0.4 -0.1 -0.1	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4 0.1 -0.5 0.4 0.3 -0.2	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8 -1.3 -0.6	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.5 0.4 0.3 -0.6	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 -0.1	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0 0.1 0.1	0.1 0.2 0.3 0.3 0.4 0.3 0.4 0.3 0.1 0.2 0.3 0.0 0.1 0.2	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.2 0.4 0.2 0.2 0.0	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2	0.2 -1.6 0.2 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.8 0.6	1.2 -0.1 0.0 -1.0 -1.3 -2.7 -1.6 -2.7 -1.2 2.6 -0.1 -0.1
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1	0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.0 0.1 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.7	0.9 -3.6 3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4 -0.7 1.1	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1 0.4 0.4 -0.1	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4 0.1 0.1 -0.5 0.4 0.3	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8 -1.3	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3	$\begin{array}{c} -0.2 \\ -0.3 \\ -0.1 \\ -0.4 \\ -0.5 \\ -0.7 \\ -0.6 \\ -0.5 \\ -0.2 \\ 0.2 \\ 0.5 \\ 0.4 \\ 0.3 \\ -0.6 \\ 0.3 \end{array}$	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 0.5	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0 0.1	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.2 0.4 0.3 0.2	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1	0.2 -1.6 0.2 -0.9 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.8	1.2 -0.1 0.0 -1.0 -1.9 -1.3 -2.7 -1.6 -2.7 -1.2 2.6 -0.1
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep Oct	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1 0.0 0.2	0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.0 0.1 0.1 0.1 -0.1 -0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.7 0.0 0.4	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8 -0.4 0.6	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 -0.4 -0.4 -0.7 1.1 0.1 -0.7	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1	0.2 0.0 0.3 0.2 -0.2 0.3 0.2 0.0 -0.1 0.1 0.4 0.4 -0.1 0.4	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.4 0.1 -0.5 0.4 0.3 -0.2 0.5	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8 0.9	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.7 -0.8 -0.1 2.3 -0.8 -1.3 -0.6 0.4	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.5 0.4 0.3 -0.6	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.3	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 0.5 0.5 0.9	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0 0.0 0.1 0.1 0.5	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0 0.1 0.2 0.1	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.2 0.4 0.3 0.2 0.0 -0.1	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.6 0.6	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -1.3\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ -0.3\end{array}$
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3	0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.1 0.1 0.1 0.1 -0.1 -0.1 0.0	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.7 0.0 0.4 -0.9	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8 1.9	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8 -0.4 0.6 -1.6	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9 1.3	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4 -0.7 1.1 0.1 -0.7 0.5	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1 1.2	0.2 0.0 0.3 0.2 -0.2 0.0 -0.1 0.1 0.4 -0.1 -0.1 -0.1 -0.4 -0.4	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.4 0.3 -0.2 0.5 -1.1	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8 0.9 -1.4	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8 -1.3 -0.6 0.4 1.0	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0 -1.5	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.2 0.4 -0.5 -0.4 -0.5 -0.2 0.3 -0.6 -0.3 -0.6 -0.3 -0.0 0.0 -0.4 -0.5 -0.4 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.7 -0.5 -0.5 -0.7 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.3 -0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 0.5 -0.1 0.9 -0.9 0.7 -0.3	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5 1.0	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0 0.1 0.1 0.5 0.0	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0 0.1 0.2 0.1 0.5	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.2 0.4 0.3 0.2 0.0 -0.1 0.1	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1 3.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9 -0.9 -0.9 -0.4 1.2 0.6 1.4 0.6 0.6 0.6 0.6 -0.4	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -1.3\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ 0.3\\ 0.3\end{array}$
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan Feb	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.0	0.6 0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.1 0.1 0.1 0.1 -0.1 -0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.0	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.1 -0.1 -0.1 -0.2 0.4 -0.2 0.2 0.4	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8 1.9 -2.1 1.1 -0.2	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8 -0.4 0.6 -1.6 0.1 0.6 0.9	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9 1.3 -2.0 -3.9 -1.0	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 -0.4 -0.7 1.1 0.1 -0.7 0.5 0.4 1.0 -1.9	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1 1.2 -0.3 1.2 -1.8	0.2 0.0 0.3 0.2 -0.2 0.0 -0.1 0.1 0.4 -0.1 0.4 -0.4 -0.4 0.4 -0.4 0.3 0.1 0.0	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.4 0.1 0.1 -0.5 0.4 0.3 -0.2 0.5 -1.1 -0.2 1.2 -0.7	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8 0.9 -1.4 0.4 1.1 -1.0	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8 -1.3 -0.8 -1.3 -0.6 0.4 1.0 0.2 -0.7 0.5	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0 -1.5 1.0 -2.5 1.1	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.2 0.5 0.4 0.3 -0.6 0.3 -1.0 0.0 0.4 0.4 0.7	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 0.5 -0.1 0.9 -0.9 0.7 7.0.3 0.8	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5 1.0 0.6 0.4 -1.1	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0 0.1 0.5 0.0 0.1 0.1 0.1 0.1	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0 0.1 0.2 0.1 0.5 0.5 0.5	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.2 0.4 0.3 0.2 0.0 -0.1 0.1 0.1 -0.2	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1 3.0 0.2 0.7 -0.2	0.2 -1.6 0.2 -0.9 -0.9 -0.9 -0.9 -0.4 1.2 0.6 1.4 0.6 0.6 -0.4 -0.6 -0.4 -0.6 1.0 -0.3	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -1.3\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ 0.3\\ 0.3\\ 1.4\\ 0.1\\ -0.8\end{array}$
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan Feb Mar	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.2 -0.3 0.2 0.2 0.2 -0.3 0.2 0.2 0.2 0.3 -0.4 -0.5 0.5 0.2 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.4 -0.1 -0.5 0.2 -0.4 -0.1 -0.5 0.2 -0.4 -0.1 -0.5 0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.2 -0.3 0.2 -0.3 0.2 -0.3 0.2 -0.3 0.2 -0.3 0.2 -0.5 -0.2 -0.3 0.2 -0.5 -0.2 -0.3 0.2 -0.5 -0.2 -0.3 -0.2 -0.5 -0.2 -0.3 -0.5 -0.2 -0.5 -0.5 -0.3 -0.5 -	0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.1 0.1 0.1 0.1 0.1 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.0 0.1 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.7 0.0 0.4 -0.9 -0.2 0.2 0.4 -4.3	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8 1.9 -2.1 1.1 -0.2 -6.9	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8 -0.4 0.6 -1.6 0.1 0.6 0.9 -5.2	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9 1.3 -2.0 -3.9 -1.0 -1.4	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 0.4 2.4 -0.4 -0.7 1.1 0.1 -0.7 0.5 0.4 1.0 -1.9 0.7	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1 1.2 -0.3 1.2 -1.8 -5.4	0.2 0.0 0.3 0.2 -0.2 0.0 -0.1 0.1 0.4 -0.1 -0.1 -0.1 0.4 -0.4 0.3 0.1 0.0 -7.5	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.1 0.1 0.4 0.3 -0.2 0.5 -1.1 -0.2 1.2 -0.7 -9.9	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8 0.9 -1.4 0.4 1.1 -1.0 -12.9	-1.2 0.4 1.1 0.9 -0.4 1.0 0.3 -0.7 -0.8 -0.1 2.3 -0.8 -1.3 -0.6 0.4 1.0 0.2 -0.7 0.5 -31.6	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0 -1.5 1.0 -2.5 1.1 -1.2	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.5 0.4 0.3 -0.6 0.3 -0.6 0.3 -0.6 0.3 -1.0 0.0 0.4 0.7 -0.2	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.5 0.5 0.5 -0.1 0.9 -0.9 0.7 -0.3 0.8 -2.1	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5 1.0 0.6 0.4 -1.1 -1.1	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.1 0.1 0.5 0.0 0.1 0.1 0.1 0.0	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.3 0.0 0.1 0.2 0.1 0.5 0.5 0.5 0.1 -20.8	0.2 0.3 0.2 0.1 0.1 0.1 0.1 0.0 0.0 0.0 0.0 0.0 0.0	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1 3.0 0.2 0.7 -0.2 -13.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9 -0.9 -0.4 1.2 0.6 1.4 0.6 0.6 -0.4 -0.6 1.0 -0.3 -16.9	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -1.3\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ 0.3\\ 0.3\\ 1.4\\ 0.1\\ -0.8\\ -4.8\\ -4.8\end{array}$
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan Feb Mar Apr	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.4 -0.5 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 -0.5 -0.5 0.2 -0.5 -0.5 -0.5 -0.2 -0.5 -0.2 -0.5 -0.2 -0.5 -0.2 -0.5 -0.2 -0.5 -0.5 -0.2 -0.5 -0.5 -0.2 -0.5 -0.5 -0.5 -0.5 -0.5 -0.2 -0.5 -0.2 -0.5	0.6 0.0 -1.0 -0.3 -0.1 -0.1 -0.1 0.1 0.1 0.1 -0.1 -0.1 -0	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.1 -0.7 0.0 0.4 -0.9 -0.2 0.2 0.4 -4.3 -20.4	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8 1.9 -2.1 1.1 -0.2 6.9 -9.1	-0.2 -0.5 -0.5 -0.1 -0.5 -1.1 -0.5 -1.2 -0.3 -0.1 -0.4 -0.6 -1.6 -0.1 0.9 -0.4 -0.6 -1.6 0.1 0.9 -5.2 -24.6	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9 1.3 -2.0 -3.9 -1.0 -3.9 -1.4 -8.8	-0.2 0.5 -0.6 -0.3 -0.7 0.0 0.4 2.4 -0.4 -0.4 -0.7 1.1 0.1 -0.7 0.5 0.4 1.0 -1.9 0.7 -7.0	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1 1.2 -0.3 1.2 -1.8 -5.4 -4.2 -5.4 -4.2	0.2 0.0 0.3 0.2 -0.2 0.0 -0.1 0.1 0.4 -0.1 -0.1 0.4 -0.4 -0.4 -0.4 -0.3 0.1 0.3 0.1 0.3 -7.5 -18.5	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4 0.1 0.4 0.1 -0.5 0.4 0.3 -0.2 0.5 -1.1 -0.2 1.2 -0.7 -9.9 -27.6	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8 0.9 -1.4 0.4 1.1 -1.0 -1.2 9 -29.7	$\begin{array}{c} -1.2\\ 0.4\\ 1.1\\ 0.9\\ -0.4\\ 1.0\\ 0.3\\ -0.7\\ -0.8\\ -0.1\\ 2.3\\ -0.8\\ -0.1\\ 2.3\\ -0.8\\ -1.3\\ -0.6\\ 0.4\\ 1.0\\ 0.2\\ -0.7\\ 0.5\\ -31.6\\ -86.4\end{array}$	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0 -1.5 1.0 -2.5 1.1 -1.2 -12.3	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.5 0.4 0.3 -0.6 0.3 -1.0 0.0 0.4 0.7 -0.2 -0.2 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.1 0.1 0.3 -0.1 0.2 0.2 0.2 0.2 0.2 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.2 -0.1 0.2 -0.1 0.2 -0.1 0.2 -0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 -0.1 0.9 0.7 -0.3 0.8 -2.1 -19.2	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5 1.0 0.6 0.4 -1.1 -10.4 -27.4	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.2 0.3 0.0 0.1 0.2 0.1 0.2 0.5 0.5 0.5 0.1 20.8	$\begin{array}{c} 0.2\\ 0.3\\ 0.2\\ 0.1\\ 0.1\\ 0.1\\ 0.1\\ 0.0\\ 0.0\\ 0.2\\ 0.4\\ 0.3\\ 0.2\\ 0.0\\ -0.1\\ 0.1\\ -0.1\\ -0.1\\ -0.2\\ -12.3\\ -21.4\end{array}$	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1 3.0 0.2 0.7 -0.2 -13.0 -40.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.6 0.6 0.6 -0.4 -0.6 1.0 -0.3 -16.9 -41.9	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ 0.3\\ 0.3\\ 0.3\\ 1.4\\ 0.1\\ -0.8\\ -4.8\\ -45.5\\ \end{array}$
Oct Nov Dec 2019 Jan Feb Mar Apr May Jul Aug Sep Oct Nov Dec 2020 Jan Feb Mar Apr May	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.2 0.4 -0.1 0.0 0.2 0.2 0.3 0.2 0.2 0.2 0.3 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.4 -0.5 0.2 0.2 0.4 -0.5 0.2 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 0.2 -0.5 0.2 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 -0.5 0.2 0.2 0.2 -0.5 0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.6 0.0 -1.0 -0.3 -0.1 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.1 -0.7 0.0 0.4 -0.9 -0.2 0.2 0.4 -4.3 -20.4 6.2	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8 1.9 -2.1 1.1 -0.2 -6.9 -9.1 6.1	-0.2 -0.2 -0.5 0.1 -0.5 1.1 0.5 1.2 -4.3 0.9 -0.1 0.2 -0.8 -0.4 0.6 -1.6 0.1 0.6 0.9 -5.2 -24.6 8.3	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9 1.3 -2.0 -3.9 -1.0 -1.4 -8.8 -0.1	-0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 -0.4 -0.4 -0.4 -0.7 0.1 -0.7 0.5 0.4 1.0 -1.9 0.7 0.5	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1 1.2 -0.3 1.2 -1.8 -5.4 -40.2 7.6	$\begin{array}{c} 0.2\\ 0.0\\ 0.3\\ 0.2\\ -0.2\\ 0.3\\ 0.2\\ 0.0\\ -0.1\\ 0.4\\ 0.4\\ -0.1\\ 0.4\\ -0.4\\ -0.4\\ 0.4\\ -0.4\\ 0.3\\ 0.1\\ 0.0\\ -7.5\\ -18.5\\ 1.5\end{array}$	$\begin{array}{c} -0.1 \\ -0.7 \\ 0.5 \\ 0.9 \\ -1.1 \\ 1.4 \\ 0.1 \\ 0.4 \\ 0.1 \\ 0.4 \\ 0.1 \\ 0.5 \\ 0.4 \\ 0.3 \\ -0.5 \\ 0.4 \\ 0.3 \\ -0.5 \\ -1.1 \\ -0.2 \\ 0.5 \\ -1.1 \\ -0.2 \\ 1.2 \\ -0.7 \\ -9.9 \\ -2.7 \\ 6 \\ 13.1 \end{array}$	0.3 0.7 0.2 0.1 0.4 0.0 0.3 -0.4 2.0 -1.1 -0.6 0.4 2.0 -1.1 -0.8 0.9 -1.4 0.4 1.1 -1.0 -12.9 -29.7 5.9	$\begin{array}{c} -1.2\\ 0.4\\ 1.1\\ 0.9\\ -0.4\\ 1.0\\ 0.3\\ -0.7\\ -0.8\\ -0.1\\ 2.3\\ -0.8\\ -1.3\\ -0.6\\ 0.4\\ 1.0\\ 0.2\\ -0.7\\ 0.5\\ -31.6\\ -86.4\\ 5.9\end{array}$	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0 -1.5 1.0 -2.5 1.1 -1.2 -12.3 -1.7	$\begin{array}{c} -0.2 \\ -0.3 \\ -0.1 \\ -0.4 \\ -0.5 \\ -0.7 \\ -0.6 \\ -0.5 \\ -0.2 \\ 0.2 \\ 0.5 \\ 0.4 \\ 0.3 \\ -0.6 \\ 0.3 \\ -1.0 \\ 0.0 \\ 0.0 \\ 0.4 \\ 0.7 \\ -0.2 \\ -5.0 \\ 1.4 \end{array}$	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 0.5 -0.1 0.9 -0.9 0.7 -0.3 0.8 -2.1 -19.2 -3.6	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5 1.0 0.6 0.4 -1.1 -10.4 -27.4 -1.0	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.0 0.1 0.1 0.5 0.0 0.1 0.1 0.1 0.1 0.1 0.2 0.2 0.1	0.1 0.2 0.3 0.3 0.3 0.4 0.3 0.1 0.1 0.2 0.1 0.2 0.1 0.5 0.5 0.5 0.1 -20.8 -26.7 4.6	$\begin{array}{c} 0.2\\ 0.3\\ 0.2\\ 0.1\\ 0.1\\ 0.1\\ 0.1\\ 0.0\\ 0.0\\ 0.2\\ 0.4\\ 0.3\\ 0.2\\ 0.4\\ 0.3\\ 0.2\\ 0.0\\ -0.1\\ 0.1\\ -0.1\\ -0.1\\ -0.2\\ -12.3\\ -21.4\\ 1.0\end{array}$	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1 3.0 0.2 0.7 -0.2 -13.0 -40.0 -9.5	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.6 0.6 0.6 -0.4 -0.6 1.0 -0.3 -16.9 -41.9 3.8	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -1.3\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ 0.3\\ 0.3\\ 1.4\\ 0.1\\ -0.8\\ -4.8\\ -4.8\\ -4.8\\ -4.8\\ -4.8\\ -4.8\\ -4.5\\ -2.4\end{array}$
Oct Nov Dec 2019 Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan Feb Mar Apr	0.3 0.1 -0.4 0.5 0.3 0.1 -0.5 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.4 -0.1 0.0 0.2 -0.3 0.2 0.2 0.2 0.4 -0.5 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 0.4 -0.5 -0.5 0.2 0.2 -0.5 -0.5 0.2 -0.5 -0.5 -0.5 -0.2 -0.5 -0.2 -0.5 -0.2 -0.5 -0.2 -0.5 -0.2 -0.5 -0.5 -0.2 -0.5 -0.5 -0.2 -0.5 -0.5 -0.5 -0.5 -0.5 -0.2 -0.5 -0.2 -0.5	0.6 0.0 -1.0 -0.3 -0.1 -0.1 -0.1 0.1 0.1 0.1 -0.1 -0.1 -0	-0.2 -0.6 -0.1 -0.2 -0.5 0.9 0.1 1.1 -3.2 1.0 -0.1 -0.1 -0.1 -0.1 -0.7 0.0 0.4 -0.9 -0.2 0.2 0.4 -4.3 -20.4	0.9 -3.6 3.1 -3.1 -0.6 -2.0 2.5 4.9 -4.4 0.4 -0.5 -0.6 0.2 6.5 -6.8 1.9 -2.1 1.1 -0.2 6.9 -9.1	-0.2 -0.5 -0.5 -0.1 -0.5 -1.1 -0.5 -1.2 -0.3 -0.1 -0.4 -0.6 -1.6 -0.1 0.9 -0.4 -0.6 -1.6 0.1 0.9 -5.2 -24.6	-0.2 -2.2 1.3 -0.5 -1.2 2.3 -3.7 -0.8 3.3 0.4 0.5 -1.5 -1.9 -0.4 3.9 1.3 -2.0 -3.9 -1.0 -3.9 -1.4 -8.8	-0.2 0.2 -0.5 -0.6 -0.3 -0.7 0.0 0.4 2.4 -0.4 -0.7 1.1 0.1 -0.7 0.5 0.4 1.0 -1.9 0.7 -7.0	-0.3 0.8 0.5 -0.4 -1.9 2.1 2.1 -1.1 0.0 0.1 -1.6 1.4 0.0 0.6 -2.1 1.2 -0.3 1.2 -1.8 -5.4 -4.2 -5.4 -4.2	0.2 0.0 0.3 0.2 -0.2 0.0 -0.1 0.1 0.4 -0.1 -0.1 0.4 -0.4 -0.4 -0.4 -0.3 0.1 0.3 0.1 0.3 -7.5 -18.5	-0.1 -0.7 0.5 0.9 -1.1 1.4 0.1 0.4 0.1 0.4 0.1 -0.5 0.4 0.3 -0.2 0.5 -1.1 -0.2 1.2 -0.7 -9.9 -27.6	0.3 0.1 0.7 0.2 0.1 0.4 0.0 0.3 -0.1 -0.6 -0.4 2.0 -1.1 -0.8 0.9 -1.4 0.4 1.1 -1.0 -1.2 9 -29.7	$\begin{array}{c} -1.2\\ 0.4\\ 1.1\\ 0.9\\ -0.4\\ 1.0\\ 0.3\\ -0.7\\ -0.8\\ -0.1\\ 2.3\\ -0.8\\ -0.1\\ 2.3\\ -0.8\\ -1.3\\ -0.6\\ 0.4\\ 1.0\\ 0.2\\ -0.7\\ 0.5\\ -31.6\\ -86.4\end{array}$	2.5 1.3 -1.1 0.7 0.9 1.0 0.2 -0.7 1.2 -0.4 1.4 0.4 -1.3 1.2 0.0 -1.5 1.0 -2.5 1.1 -1.2 -12.3	-0.2 -0.3 -0.1 -0.4 -0.5 -0.7 -0.6 -0.5 -0.2 0.2 0.5 0.4 0.3 -0.6 0.3 -1.0 0.0 0.4 0.7 -0.2 -0.2 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5 -0.5	-0.1 -0.1 0.2 -0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.1 0.1 0.3 -0.1 0.2 0.2 0.2 0.2 0.2 0.2 -0.1 0.1 0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.1 0.2 -0.1 0.1 0.2 -0.1 0.2 -0.1 0.2 -0.1 0.2 -0.1 0.2 -0.2 0.2 0.2 0.2 0.2 0.2 0.2 0.2	0.1 0.3 0.7 0.5 -1.0 -0.9 1.1 0.1 -0.5 0.0 1.6 0.5 -0.1 0.9 0.7 -0.3 0.8 -2.1 -19.2	0.0 -0.3 1.8 0.1 -0.7 1.1 0.8 0.0 -0.9 0.6 -0.4 1.5 -0.7 -0.4 0.5 1.0 0.6 0.4 -1.1 -10.4 -27.4	0.2 -0.1 -0.2 0.0 0.3 0.6 0.5 0.2 0.0 -0.1 0.0 0.1 0.1 0.1 0.1 0.1 0.1 0.1 0.1	0.1 0.2 0.3 0.3 0.4 0.3 0.1 0.2 0.3 0.0 0.1 0.2 0.1 0.2 0.5 0.5 0.5 0.1 20.8	$\begin{array}{c} 0.2\\ 0.3\\ 0.2\\ 0.1\\ 0.1\\ 0.1\\ 0.1\\ 0.0\\ 0.0\\ 0.2\\ 0.4\\ 0.3\\ 0.2\\ 0.0\\ -0.1\\ 0.1\\ -0.1\\ -0.1\\ -0.2\\ -12.3\\ -21.4\end{array}$	0.5 0.9 1.4 -0.7 1.1 -1.5 -0.1 0.0 -1.7 -0.3 3.0 -2.0 2.3 -2.2 -0.1 3.0 0.2 0.7 -0.2 -13.0 -40.0	0.2 -1.6 0.2 -0.9 -0.9 -0.9 1.2 0.0 -0.4 1.2 0.6 1.4 0.6 0.6 0.6 -0.4 -0.6 1.0 -0.3 -16.9 -41.9	$\begin{array}{c} 1.2\\ -0.1\\ 0.0\\ -1.0\\ -0.7\\ -1.9\\ -2.7\\ -1.6\\ -2.7\\ -1.2\\ 2.6\\ -0.1\\ -0.6\\ 0.3\\ 0.3\\ 0.3\\ 1.4\\ 0.1\\ -0.8\\ -4.8\\ -45.5\\ \end{array}$

Sources: For further information on these data please telephone 01633 456724 or E-mail gdp@ons.gov.uk

 1 The GVA output is designated as a National Statistic.
 Sources: For further information on these data please telephone

 1 Indices reflect values measured at basic prices, which exclude "taxes less subsidies on products".
 01633 456724 or E-mail gdp@ons.gov.uk

 2 Indices reflect values measured at basic prices, which exclude "taxes less subsidies on products".
 01633 456724 or E-mail gdp@ons.gov.uk

 3 Estimates cannot be regarded as accurate to the last digit shown.
 Any apparent inconsistencies between the index numbers and the percentage changes shown in these tables are due to rounding.

 5 A complete run of data is available on the ONS website.
 6 Monthly data from the construction survey are only available from January 2010, therefore the data prior to this period are derived using statistical methods from the available quarterly data, and should therefore be treated with some caution.

## **GVA3** Monthly GDP based on GVA (Gross Value Added) <sup>1</sup> Chained volume indices of gross value added at basic prices <sup>2,3,4,5</sup>

GVA3	Chained volume in	ndices of gross	value added at	basic price	IS <sup>2,3,4,5</sup>							s	easonally adjuste	d 2016=100									
												Industry section	ns (SIC2007)										
	Tatal						Water			Wholesale and retail:		Accommodation				Professional.	Administrative	Public					Activities househol
	Total		<b>T</b> - 4 - 1			-			<b>T</b> - 4 - 1					<b>-</b>								0.1	
	GVA at	Agriculture, forestrv and	Total production	Minina &		Electricity	supply, sewerage		Total service	repair of motor vehicles	Transport	and food service	Information and	Financial and insurance	Real estate	scientific and technical	and support adr service	ministration and		Human health and social	Arts, entertainment	Other service	as employe undifferential
	basic prices	fishing	industries	3	Manufacturing	gas, steam and air		Construction 6	industries	and motorcycles	and storage		Communication	activities	activities	activities	activities	defence	Education		and recreation	activities	acods and servic
Section	A-T	A	B-E	quarrying	Manufacturing	and an D	eic	Construction	G-T	G and motorcycles	and storage	activities	Communication	activities	activities	Activities	activities	Qelence	Education		and recreation	activities	goods and servic
2016 weights	A-1 1000	A 7	B-E 138	<u>в</u> 10	100	17	E	F 60	796	104	43	30	63	73	138	75	48	47	59	75	15	21	
2016 weights	1000	/	138	10	100	17	10	60	790	104	43	30	63	13	130	75	40	4/	59	75	15		
Percentage change,	latest month on s	ame month a ye	ear ago																				
	ED2R	ED2S	ED2T	ED2U	ED2V	ED2W	ED2X	ED2Y	ED2Z	ED32	ED33	ED34	ED35	ED36	ED37	ED38	ED39	ED3A	ED3B	ED3C	ED3D	ED3E	ED3
2018 Jul	2.1	-4.1	1.9	7.9	1.8	-1.1	2.6	1.5	2.3	4.8	2.8	1.8	4.1	-1.5	0.9	5.5	4.4	1.4	0.8	0.1	1.2	1.8	0.8
Aug	2.0	-4.3	1.6	10.3	1.2	-1.7	3.5	-0.1	2.3	4.0	2.8	2.4	5.9	-1.3	0.7	4.9	4.0	1.7	0.8	0.4	0.9	-0.4	3.4
Sep	1.7	-3.9	-0.2	2.5	-0.1	-4.1	2.5	1.0	2.1	3.1	2.6	3.9	6.5	-1.2	0.8	4.3	2.8	1.6	0.9	0.7	2.1	-1.5	2.
Oct	2.1	-2.5	-0.6	4.3	-1.2	-0.5	1.5	3.3	2.5	3.7	2.9	4.5	5.1	-0.8	0.8	5.6	4.1	1.3	1.4	1.6	2.4	-0.5	6.
Nov	1.9	-2.2	-0.8	0.0	-0.9	-2.6	1.3	0.7	2.5	4.4	3.6	4.9	5.9	-1.3	0.5	5.1	3.4	1.1	1.7	1.4	2.2	-0.8	5.
Dec	1.2	-2.8	-1.1	23.2	-2.0	-6.0	1.1	-3.6	2.1	3.7	3.6	4.0	5.3	-1.9	0.6	3.6	1.9	1.4	2.0	1.2	2.4	-1.2	4.3
2019 Jan	1.6	-2.2	-0.2	0.8	-0.9	1.4	2.4	1.0	2.0	4.5	3.6	4.2	7.1	-3.2	0.5	1.2	2.6	2.2	2.5	1.0	1.4	-3.1	1.1
Feb	2.3	-1.7	-0.3	5.2	0.2	-8.0	2.5	4.4	2.6	4.3	4.5	6.0	8.5	-4.3	0.4	3.7	5.2	2.7	2.7	1.1	2.1	-0.8	0.
Mar	2.3	-1.4	0.9	13.7	1.8	-10.8	1.4	5.2	2.4	5.5	5.4	4.3	5.8	-4.6	0.4	3.0	4.7	3.0	2.6	1.1	1.3	-2.8	-4.
Apr	1.5	-1.3	-1.8	-0.1	-2.2	-3.3	2.4	3.8	1.9	4.5	4.4	2.6	6.7	-4.6	0.4	1.5	3.1	2.8	2.5	1.3	-1.2	-2.8	-6.
May	1.4	-1.1	-0.4	2.0	-1.7	4.5	3.3	2.5	1.6	2.6	2.6	1.7	6.1	-4.1	0.5	1.5	3.7	2.4	2.5	1.5	-1.6	-1.8	-8.
Jun	1.3	-0.6	-1.5	1.5	-2.5	2.2	0.4	0.1	1.8	2.3	1.3	3.4	7.5	-3.2	0.5	3.3	1.8	1.9	2.7	1.9	1.4	-1.9	-10.
Jul	1.4	-0.3	-2.0	-3.4	-2.0	-2.4	-0.1	1.4	2.0	1.6	3.1	2.1	7.8	-2.4	0.5	2.5	3.5	1.5	2.7	2.1	0.6	-0.1	-9.
Aug	1.1	-0.3	-2.5	-4.0	-2.6	-4.0	1.3	1.8	1.7	2.0	1.6	2.0	3.9	-1.8	0.7	2.8	2.8	1.4	2.7	2.1	2.4	0.6	-10.
Sep	1.1	-1.0	-1.9	6.1	-2.8	-2.3	1.2	1.5	1.6	2.5	0.7	1.0	3.7	-2.2	0.9	2.4	2.7	1.6	2.6	1.9	-0.9	2.8	-10.
Oct	1.0	-1.6	-1.4	-4.1	-1.8	0.1	1.0	-1.1	1.6	2.5	0.9	0.2	4.8	-1.7	0.9	2.6	1.3	2.2	2.5	1.6	-2.4	3.2	-10.
Nov	0.5	-1.7	-2.1	0.8	-3.4	1.9	2.0	0.6	1.0	0.4	-0.7	0.3	2.4	-2.4	0.9	1.1	2.2	2.3	2.7	1.5	1.3	3.7	-9
Dec	1.1	-0.6	-1.8	-0.7	-2.8	1.2	2.6	2.2	1.5	1.3	-0.4	1.0	2.6	-1.9	1.0	2.9	3.6	2.0	2.8	1.5	0.3	4.0	-7
2020 Jan	0.8	-0.2	-2.4	2.4	-3.3	-4.9	4.5	1.3	1.3	1.2	0.4	-0.7	-1.0	-0.8	1.1	3.5	2.9	1.5	2.9	1.3	2.6	6.0	-5
Feb	0.4	0.1	-2.2	-0.4	-2.9	-2.2	2.5	-2.6	1.1	0.3	-0.7	-0.6	-0.1	0.5	1.3	3.2	1.0	1.1	2.7	0.9	2.4	4.4	-5
Mar	-6.6	-0.6	-7.5	-11.5	-9.1	-2.8	2.9	-6.8	-6.5	-10.0	-13.7	-31.5	-0.7	0.8	0.7	0.9	-9.5	0.9	-18.8	-11.5	-10.9	-13.2	-7
Apr	-25.0	-6.2	-24.0	-15.8	-28.4	-14.2	-4.7	-44.2	-23.8	-34.9	-39.3	-90.6	-14.0	-4.0	-2.0	-18.1	-33.7	1.1	-40.6	-30.5	-45.6	-49.4	-48
May	-23.3	-5.3	-20.0	-11.1	-23.1	-14.7	-6.5	-40.0	-22.7	-26.5	-35.4	-90.0	-15.1	-2.8	-2.7	-21.0	-34.7	1.4	-38.0	-29.9	-50.6	-48.1	-45
Jun	-16.8	-2.9	-12.5	-3.0	-14.6	-11.6	-2.3	-24.8	-17.1	-6.2	-24.3	-83.6	-10.7	-2.2	-2.9	-17.3	-25.2	1.5	-34.3	-28.6	-39.3	-45.2	-36 -28
Jul	-11.7	-1.9	-7.8	-1.8	-9.4	-7.8	0.7	-12.7	-12.4	0.0	-19.3	-60.3	-8.6	-1.3	-2.2	-14.7	-23.1	1.6	-20.5	-25.7	-28.8	-23.2	

 1 The GVA output is designated as a National Statistic.
 Sources: For further information on these data please telephone

 2 Indices reflect values measured at basic prices, which exclude "taxes less subsidies on products".
 01633 456724 or E-mail gdp@ons.gov.uk

 3 Estimates cannot be regarded as accurate to the last digit shown.
 Any apparent inconsistencies between the index numbers and the percentage changes shown in these tables are due to rounding.

 5 A complete run of data is available on the ONS website.
 6 Monthly data from the construction survey are only available from January 2010, therefore the data prior to this period are derived using statistical methods from the available quarterly data, and should therefore be treated with some caution.

				•								Industry secti	ons (SIC2007)						
	Total GVA at basic	Agriculture, forestry and fishing	Total production industries	Mining & quarrying	Manufacturing	Electricity gas, steam and air	Water supply, sewerage etc	Construction <sup>4</sup>	Total service industries	Wholesale and retail: repair of motor vehicles and motorcycles	Transport and storage	Accommodation and food service	Information	Financial and insurance activities	Real estate activities	Professional, scientific and technical activities	Administrative and support a service activities	Public dministration and defence	
Section	prices	Ŭ			-				G-T		Ŭ		Communication		activities	Activities			
2016 weights	A-T 1000	A	B-E	B 10	C 100	D 17	E 10	F 60	796	G 104	H 43		J 63	<u>К</u> 73	138	75		0 47	
2016 weights	1000	7	138	10	100	17	10	60	/96	104	43	30	63	13	130	/5	40	47	
Percentage change, la	atest 3 months or	previous 3 mor	nths <sup>3</sup>																
2018 Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
2019 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
2020 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	)
Percentage change, la	atest 3 months or	same 3 months	s a year ago <sup>3</sup>																
2018 Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
2019 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Jul	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Nov	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Dec	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
2020 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Mar	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	J

**REV1** Monthly GDP based on GVA (Gross Value Added)<sup>1</sup>

Revisions to growth of gross value added at basic prices <sup>2</sup>

Sources: For further information on these data please telephone 01633 456724 or E-mail gdp@ons.gov.uk

seasonally adjusted 2016=100

 1
 The GVA output is designated as a National Statistic.
 Sources: For further information on these data please telephone

 2
 Estimates cannot be regarded as accurate to the last digit shown.
 Ontaga 3 456724 or E-mail gdp@ons.gov.uk

 3
 Any apparent inconsistencies between the index numbers and the percentage changes shown in these tables are due to rounding.
 Ontaga 4 Monthly data from the construction survey are only available from January 2010, therefore the data prior to this period are derived using statistical methods from the available quarterly data, and should therefore be treated with some caution.

riods	open	for	revision:	No	open	periods
nous	open	101	101131011.	110	open	perious

F	Periods open f	or revision: N	No open per	iods
				Activities of households
	Human health and social	Arts, entertainment	Other service	as employers, undifferentiated
Education P	work activities Q	and recreation R	activities S	goods and services T
59	75	15	21	4
0.0	0.0 0.0 0.0	0.0	0.0	0.0
0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0
0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0

REV2	cevisions to grow	in or gross valu	e added at bas	ic prices									easonally adjusted	12016=100						Periods open f	or revision: N	vo open per	lous
										Wholesale		Industry section	ns (SIC2007)										Activities
	Total GVA at	Agriculture,	Total			Electricity	Water supply,		Total	and retail: repair of		Accommodation and food	Information	Financial		Professional, scientific	Administrative	Public		Human health	Arts,	Other	househo
	basic	forestry and	production	Mining &		gas, steam	supply, sewerage		service	motor vehicles	Transport	service	and	and insurance	Real estate		and support ad service	and		and social	entertainment	service	as employe undifferentia
	prices	fishing	industries	quarrying	Manufacturing	and air	etc	Construction 4	industries	and motorcycles	and storage	activities	Communication	activities	activities	activities	activities	defence	Education	work activities	and recreation	activities	goods and servic
ection 116 weights	A-T 1000	A 7	B-E 138	В 10	100	D 17	E 10	F 60	G-T <b>796</b>	G 104	H 43	30	J 63	к 73	138	M 75	N 48	0 47	P 59	Q 75	R 15	s 21	
rcentage change, late	test month on pro	evious month <sup>3</sup>																					
18 Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Jul	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
Aug Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Nov Dec	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
19 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mar Apr	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Jul Aug	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	
Nov Dec	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	
20 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Feb Mar	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	(
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
ercentage change, la	atest month on s	ame month a ye	ar ago <sup>3</sup>																				
18 Jun	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	(
Jul Aug	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	(
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	
Nov Dec	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	
19 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Feb Mar	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
Apr	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Jun Jul	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0	0.0 0.0	0.0 0.0	0.0 0.0	
Aug	0.0 0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	0.0	0.0 0.0	0.0	0.0	0.0	
Sep	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Oct	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Nov Dec	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
20 Jan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Feb	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Mar Apr	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	0.0 0.0	
May	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Jun	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

Sources: For further information on these data please telephone 01633 456724 or E-mail gdp@ons.gov.uk

 1 The GVA output is designated as a National Statistic.
 Sources: For further information on these data please telephone

 2 Estimates cannot be regarded as accurate to the last digit shown.
 01633 456724 or E-mail gdp@ons.gov.uk

 3 Any apparent inconsistencies between the index numbers and the percentage changes shown in these tables are due to rounding.
 01633 456724 or E-mail gdp@ons.gov.uk

 4 Monthly data from the construction survey are only available from January 2010, therefore the data prior to this period are derived using statistical methods from the available quarterly data, and should therefore be treated with some caution.

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## **CONTRIB 1** Monthly GDP based on GVA (Gross Value Added) <sup>1</sup> Contributions to growth of gross value added at basic prices <sup>2,3,4,5</sup>

											Industry	sections (SIC2007	7)										
	Total						Water			Wholesale and retail:		Accommodation				Professional,	Administrative	Public					Activities of households
	GVA at	Agriculture,	Total			Electricity	supply,		Total	repair of		and food	Information	Financial		scientific	and support a			Human health	Arts,	Other	as employers
	basic	forestry and	production	Mining &		gas, steam	sewerage		service	motor vehicles	Transport	service	and	and insurance	Real estate		service	and		and social	entertainment	service	undifferentiated
	prices	fishing	industries	quarrying	Manufacturing	and air	etc	Construction	industries	and motorcycles	and storage	activities	Communication	activities	activities	activities	activities		Education	work activities	and recreation	activities	goods and services
Section	A-T	A	B-E	B	C	D	E	F	G-T	G	H	1	J	к	L	M	N	0	P	Q	R	S	1
2016 weights	1000	7	138	10	100	17	10	60	796	104	43	30	63	73	138	75	48	47	59	75	15	21	4
Contribution to growth, late	est 3 months on previ	ous 3 months																					
	EDMB	EDMC	EDMD	EDME	EDMF	EDMG	EDMH	EDMI	EDMJ	EDMK	EDML	EDMM	EDMN	EDMO	EDMP	EDMQ	EDMR	EDMS	EDMT	EDMU	EDMV	EDMW	EDMX
2018 Jul	0.86	-0.01	0.00	0.03	0.03	-0.10	0.04	0.13	0.73	0.28	0.09	0.06	0.08	-0.07	0.02	0.09	0.08	0.04	0.03	0.00	0.01	0.01	0.00
Aug	0.85	0.00	0.10	0.04	0.05	-0.03	0.04	0.12	0.63	0.23	0.09	0.04	0.09	-0.08	0.00	0.08	0.08	0.05	0.02	0.01	-0.01	0.01	0.01
Sep	0.66	0.00	0.08	0.03	0.01	0.02	0.02	0.06	0.52	0.14	0.06	0.02	0.17	-0.07	-0.01	0.10	0.03	0.05	0.02	0.02	-0.01	-0.01	0.01
Oct	0.50	0.00	-0.01	0.02	-0.05	0.02	0.01	0.04	0.46	0.03	0.04	0.00	0.22	-0.06	-0.01	0.11	0.04	0.03	0.02	0.04	0.01	-0.02	0.01
Nov	0.41	0.01	-0.10	-0.01	-0.08	-0.01	-0.01	0.05	0.45	0.03	0.04	0.02	0.18	-0.05	-0.01	0.11	0.05	0.01	0.03	0.04	0.03	-0.03	0.00
Dec 2010 Jon	0.30	0.00	-0.12	-0.01	-0.08	-0.01	-0.01	0.00	0.41	0.03	0.04	0.04	0.10	-0.06	0.01	0.08	0.08	0.00	0.04	0.04	0.03	-0.03	0.00
2019 Jan Feb	0.24 0.25	0.00 -0.01	-0.08 -0.01	-0.03 -0.02	-0.03 0.03	-0.01 -0.01	-0.02 -0.02	-0.03 0.00	0.34 0.27	0.08 0.07	0.04 0.03	0.05 0.04	0.10 0.12	-0.08 -0.10	0.01 0.02	0.01 -0.05	0.06 0.05	0.01 0.04	0.05 0.06	0.03 0.03	0.01 0.00	-0.04 -0.03	-0.01 -0.01
Mar	0.52	-0.01	0.12	0.02	0.05	-0.01	-0.02	0.00	0.27	0.12	0.03	0.04	0.12	-0.10	0.02	-0.05	0.05	0.04	0.00	0.03	-0.02	-0.03	-0.01
Apr	0.42	-0.01	0.03	0.03	0.04	-0.02	0.00	0.12	0.27	0.12	0.02	0.00	0.08	-0.12	0.02	0.00	0.05	0.05	0.05	0.02	-0.02	0.00	-0.01
May	0.20	0.00	-0.04	0.03	-0.07	0.00	0.01	0.06	0.19	0.11	0.01	-0.02	0.04	-0.09	0.04	0.01	0.02	0.03	0.04	0.02	-0.03	0.01	-0.02
Jun	-0.12	0.00	-0.24	0.00	-0.28	0.03	0.03	-0.03	0.16	0.04	-0.01	-0.01	0.08	-0.03	0.04	0.03	-0.02	0.01	0.03	0.03	-0.02	0.02	-0.02
Jul	0.17	0.00	-0.12	-0.01	-0.16	0.03	0.03	-0.06	0.35	0.02	0.00	0.01	0.10	0.02	0.03	0.07	0.01	0.00	0.03	0.05	0.00	0.03	-0.01
Aug	0.39	0.00	-0.11	-0.02	-0.11	0.00	0.02	-0.04	0.54	0.00	0.01	0.03	0.11	0.06	0.01	0.15	0.02	0.00	0.03	0.06	0.02	0.04	-0.01
Sep	0.49	0.00	-0.04	0.01	-0.03	-0.03	0.01	0.03	0.50	0.03	0.02	-0.01	0.06	0.06	0.01	0.14	0.04	0.01	0.02	0.06	0.01	0.05	0.00
Oct	0.24	0.00	-0.09	0.01	-0.08	-0.02	0.00	0.00	0.33	0.05	-0.01	-0.04	0.02	0.03	0.03	0.12	0.00	0.02	0.02	0.04	0.01	0.04	0.00
Nov Dec	0.04	0.00 0.00	-0.08	0.02	-0.10	0.01	0.00	0.00	0.11 0.11	0.01	-0.03	-0.03	-0.01	-0.02	0.04	0.05	0.01	0.03	0.03 0.04	0.02	-0.01	0.03 0.01	0.00
2020 Jan	-0.02 -0.04	0.00	-0.07 -0.10	-0.02 -0.02	-0.10 -0.11	0.04 0.02	0.00 0.01	-0.06 0.01	0.05	-0.04 -0.07	-0.03 -0.02	0.01 0.03	-0.03 -0.10	-0.04 -0.06	0.05 0.04	0.05 0.00	0.05 0.09	0.03 0.02	0.04	0.00 0.00	0.02 0.04	0.01	0.00
2019 Feb	0.12	0.00	-0.06	-0.02	-0.01	-0.02	0.01	0.00	0.05	-0.03	0.02	0.03	-0.10	-0.00	0.04	0.00	0.09	0.02	0.00	0.00	0.04	0.00	0.00
Mar	-2.16	0.00	-0.19	-0.02	-0.10	-0.09	0.00	-0.10	-1.87	-0.33	-0.17	-0.29	-0.15	0.03	0.00	-0.03	-0.16	0.02	-0.35	-0.32	-0.04	-0.09	0.00
Apr	-10.71	-0.02	-1.18	-0.07	-0.95	-0.12	-0.04	-1.06	-8.44	-1.58	-0.72	-1.15	-0.37	-0.06	-0.10	-0.55	-0.86	0.01	-1.21	-1.12	-0.33	-0.38	-0.05
May	-18.74	-0.03	-2.04	-0.09	-1.72	-0.14	-0.06	-1.83	-14.81	-2.52	-1.22	-2.00	-0.72	-0.16	-0.28	-1.22	-1.51	0.01	-2.01	-1.89	-0.62	-0.65	-0.09
Jun	-20.35	-0.03	-2.24	-0.07	-1.93	-0.14	-0.07	-2.15	-15.90	-2.11	-1.23	-2.24	-0.86	-0.25	-0.43	-1.67	-1.64	0.02	-1.94	-2.04	-0.72	-0.74	-0.12
Jul	-7.56	-0.01	-0.47	0.02	-0.42	-0.05	-0.01	-0.60	-6.46	0.49	-0.40	-1.18	-0.43	-0.06	-0.34	-1.07	-0.83	0.02	-0.75	-1.18	-0.39	-0.32	-0.06
Contribution to growth, late		-	-																				
	EDMY	EDMZ	EDNA	EDNB	EDNC	EDND	EDNE	EDNF	EDNG	EDNH	EDNI	EDNJ	EDNK	EDNL	EDNM	EDNN	EDNO	EDNP	EDNQ	EDNR	EDNS	EDNT	EDNU
2018 Jul	1.84	-0.03	0.20	0.04	0.19	-0.06	0.04	0.05	1.61	0.43	0.10	0.07	0.26	-0.09	0.12	0.38	0.22	0.03	0.04	-0.01	0.03	0.02	0.00
Aug Sep	1.95 1.93	-0.03 -0.03	0.23 0.15	0.05 0.05	0.18 0.10	-0.03 -0.03	0.05 0.04	0.05 0.05	1.70 1.76	0.42 0.42	0.12 0.11	0.07 0.08	0.29 0.38	-0.09 -0.09	0.11 0.11	0.38 0.37	0.23 0.19	0.06 0.08	0.04 0.05	0.01 0.03	0.03 0.02	0.02 0.00	0.00 0.01
Oct	1.93	-0.03	0.04	0.03	0.00	-0.03	0.04	0.08	1.84	0.42	0.11	0.00	0.30	-0.09	0.11	0.37	0.19	0.08	0.05	0.03	0.02	-0.01	0.01
Nov	1.91	-0.02	-0.07	0.02	-0.07	-0.03	0.02	0.10	1.91	0.39	0.12	0.12	0.40	-0.08	0.09	0.38	0.18	0.07	0.08	0.09	0.04	-0.02	0.01
Dec	1.75	-0.02	-0.12	0.06	-0.14	-0.04	0.02	0.00	1.89	0.41	0.14	0.12	0.38	-0.09	0.08	0.36	0.16	0.06	0.10	0.10	0.04	-0.01	0.02
2019 Jan	1.59	-0.02	-0.10	0.06	-0.13	-0.04	0.02	-0.04	1.76	0.44	0.15	0.12	0.42	-0.15	0.07	0.25	0.14	0.08	0.12	0.09	0.03	-0.03	0.01
Feb	1.73	-0.02	-0.08	0.08	-0.09	-0.07	0.03	0.03	1.78	0.44	0.16	0.13	0.48	-0.22	0.06	0.22	0.17	0.10	0.14	0.08	0.03	-0.03	0.01
	2.08	-0.01	0.02	0.06	0.04	-0.09	0.03	0.21	1.86	0.50	0.19	0.13	0.49	-0.29	0.06	0.20	0.22	0.13	0.15	0.08	0.03	-0.04	0.00
Mar		-0.01	-0.05	0.05	-0.01	-0.11	0.03	0.27	1.82	0.50	0.20	0.12	0.49	-0.32	0.05	0.21	0.23	0.14	0.15	0.09	0.01	-0.04	-0.01
Apr	2.03	-0.01	-0.06	0.05	-0.07	-0.05	0.03	0.23	1.55	0.44	0.17	0.08	0.43	-0.32	0.06	0.15	0.20	0.13	0.15	0.10	-0.01	-0.04	-0.02
Apr May	1.71			~ ~ 4		0.02	0.03	0.13	1.41	0.33 0.23	0.11 0.10	0.07 0.07	0.47 0.50	-0.28	0.06 0.07	0.16 0.19	0.15	0.11	0.15 0.15	0.12 0.14	-0.01 0.00	-0.04 -0.02	-0.03 -0.03
Apr May Jun	1.71 1.37	-0.01	-0.17	0.01	-0.21		0.00	0 A 0				0.07	0.50	-0.23			0.16	0.09	U.15	0.14	0.00	-0.02	
Apr May Jun Jul	1.71 1.37 1.33	-0.01 0.00	-0.17 -0.18	0.00	-0.20	0.02	0.02	0.08	1.43 1.45				0.45	_0 17	0.07		0 1 /	0.09	0.15	0.15			0.03
Apr May Jun Jul Aug	1.71 1.37 1.33 1.25	-0.01 0.00 0.00	-0.17 -0.18 -0.27	0.00 -0.02	-0.20 -0.23	0.02 -0.02	0.01	0.07	1.45	0.21	0.08	0.07	0.45 0.36	-0.17 -0.15	0.07 0.09	0.22	0.14 0.16	0.08 0.07	0.15 0.15	0.15 0.16	0.02	-0.01	-0.03 -0.03
Apr May Jun Jul	1.71 1.37 1.33	-0.01 0.00 0.00 0.00	-0.17 -0.18 -0.27 -0.29	0.00 -0.02 0.00	-0.20 -0.23 -0.25	0.02 -0.02 -0.04	0.01 0.01			0.21 0.22	0.08 0.08	0.07 0.05	0.36	-0.15	0.07 0.09 0.10	0.22 0.20 0.20	0.16	0.07	0.15	0.15 0.16 0.14	0.02 0.01	-0.01 0.02	-0.03
Apr May Jun Jul Aug Sep	1.71 1.37 1.33 1.25 1.19	-0.01 0.00 0.00	-0.17 -0.18 -0.27	0.00 -0.02	-0.20 -0.23	0.02 -0.02	0.01	0.07 0.10	1.45 1.38	0.21	0.08	0.07			0.09	0.20				0.16	0.02	-0.01	
Apr May Jun Jul Aug Sep Oct	1.71 1.37 1.33 1.25 1.19 1.07	-0.01 0.00 0.00 0.00 -0.01	-0.17 -0.18 -0.27 -0.29 -0.26	0.00 -0.02 0.00 -0.01	-0.20 -0.23 -0.25 -0.24	0.02 -0.02 -0.04 -0.03	0.01 0.01 0.01	0.07 0.10 0.04	1.45 1.38 1.29	0.21 0.22 0.25	0.08 0.08 0.05	0.07 0.05 0.03	0.36 0.29	-0.15 -0.13	0.09 0.10	0.20 0.20	0.16 0.12	0.07 0.08	0.15 0.15	0.16 0.14	0.02 0.01 0.00	-0.01 0.02 0.04	-0.03 -0.03
Apr May Jun Aug Sep Oct Nov Dec 2020 Jan	1.71 1.37 1.33 1.25 1.19 1.07 0.88	-0.01 0.00 0.00 -0.01 -0.01	-0.17 -0.18 -0.27 -0.29 -0.26 -0.25	0.00 -0.02 0.00 -0.01 0.01	-0.20 -0.23 -0.25 -0.24 -0.26	0.02 -0.02 -0.04 -0.03 0.00	0.01 0.01 0.01 0.02	0.07 0.10 0.04 0.02	1.45 1.38 1.29 1.11	0.21 0.22 0.25 0.19	0.08 0.08 0.05 0.01	0.07 0.05 0.03 0.01	0.36 0.29 0.26	-0.15 -0.13 -0.14	0.09 0.10 0.11	0.20 0.20 0.16	0.16 0.12 0.11	0.07 0.08 0.10	0.15 0.15 0.15	0.16 0.14 0.12	0.02 0.01 0.00 -0.01	-0.01 0.02 0.04 0.05	-0.03 -0.03 -0.03
Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan 2019 Feb	1.71 1.37 1.23 1.25 1.19 1.07 0.88 0.87 0.80 0.75	-0.01 0.00 0.00 -0.01 -0.01 -0.01 -0.01 0.00	-0.17 -0.18 -0.27 -0.29 -0.26 -0.25 -0.24 -0.29 -0.29	0.00 -0.02 0.00 -0.01 0.01 -0.01 0.01 0.00	-0.20 -0.23 -0.25 -0.24 -0.26 -0.26 -0.31 -0.30	0.02 -0.02 -0.04 -0.03 0.00 0.02 -0.01 -0.03	0.01 0.01 0.02 0.02 0.04 0.04	0.07 0.10 0.04 0.02 0.03 0.08 0.02	1.45 1.38 1.29 1.11 1.09 1.00 1.02	0.21 0.22 0.25 0.19 0.15 0.10 0.10	0.08 0.08 0.05 0.01 0.00 -0.01 -0.01	0.07 0.05 0.03 0.01 0.01 0.01 0.00	0.36 0.29 0.26 0.23 0.10 0.03	-0.15 -0.13 -0.14 -0.14 -0.11 -0.05	0.09 0.10 0.11 0.12 0.13 0.15	0.20 0.20 0.16 0.17 0.19 0.25	0.16 0.12 0.11 0.13 0.16 0.14	0.07 0.08 0.10 0.10 0.09 0.07	0.15 0.15 0.15 0.15 0.16 0.16	0.16 0.14 0.12 0.12 0.11 0.09	0.02 0.01 0.00 -0.01 0.00 0.02 0.03	-0.01 0.02 0.04 0.05 0.06 0.07 0.08	-0.03 -0.03 -0.03 -0.03 -0.02 -0.02 -0.02
Apr May Jun Jui Aug Sep Oct Nov Dec 2020 Jan 2019 Feb Mar	1.71 1.37 1.33 1.25 1.19 1.07 0.88 0.87 0.80 0.75 -1.82	-0.01 0.00 0.00 -0.01 -0.01 -0.01 -0.01 0.00 0.00	-0.17 -0.18 -0.27 -0.29 -0.26 -0.25 -0.24 -0.29 -0.29 -0.55	0.00 -0.02 0.00 -0.01 0.01 -0.01 0.01 0.00 -0.03	-0.20 -0.23 -0.25 -0.24 -0.26 -0.26 -0.31 -0.30 -0.51	0.02 -0.02 -0.04 -0.03 0.00 0.02 -0.01 -0.03 -0.05	0.01 0.01 0.02 0.02 0.04 0.04 0.04	0.07 0.10 0.04 0.02 0.03 0.08 0.02 -0.17	1.45 1.38 1.29 1.11 1.09 1.00 1.02 -1.10	0.21 0.22 0.25 0.19 0.15 0.10 0.10 0.10	0.08 0.05 0.01 0.00 -0.01 -0.01 -0.20	0.07 0.05 0.03 0.01 0.01 0.01 0.00 -0.31	0.36 0.29 0.26 0.23 0.10 0.03 -0.04	-0.15 -0.13 -0.14 -0.14 -0.11 -0.05 0.01	0.09 0.10 0.12 0.13 0.15 0.13	0.20 0.20 0.16 0.17 0.19 0.25 0.20	0.16 0.12 0.11 0.13 0.16 0.14 -0.10	0.07 0.08 0.10 0.09 0.07 0.06	0.15 0.15 0.15 0.15 0.16 0.16 -0.26	0.16 0.14 0.12 0.12 0.11 0.09 -0.24	0.02 0.01 0.00 -0.01 0.00 0.02 0.03 -0.03	-0.01 0.02 0.04 0.05 0.06 0.07 0.08 -0.02	-0.03 -0.03 -0.03 -0.03 -0.02 -0.02 -0.02 -0.02
Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan 2019 Feb Mar Apr	1.71 1.37 1.33 1.25 1.19 1.07 0.88 0.87 0.80 0.75 -1.82 -10.38	-0.01 0.00 0.00 -0.01 -0.01 -0.01 -0.01 0.00 0.00	-0.17 -0.18 -0.27 -0.29 -0.26 -0.25 -0.24 -0.29 -0.29 -0.29 -0.55 -1.50	0.00 -0.02 0.00 -0.01 0.01 0.01 0.01 0.00 -0.03 -0.08	-0.20 -0.23 -0.25 -0.24 -0.26 -0.26 -0.31 -0.30 -0.51 -1.30	0.02 -0.02 -0.04 -0.03 0.00 0.02 -0.01 -0.03 -0.05 -0.10	0.01 0.01 0.02 0.02 0.04 0.04 0.04 0.04	0.07 0.10 0.04 0.02 0.03 0.08 0.02 -0.17 -1.11	1.45 1.38 1.29 1.11 1.09 1.00 1.02 -1.10 -7.75	0.21 0.22 0.25 0.19 0.15 0.10 0.10 0.10 -0.30 -1.59	0.08 0.05 0.01 0.00 -0.01 -0.01 -0.20 -0.76	0.07 0.05 0.03 0.01 0.01 0.01 0.00 -0.31 -1.15	0.36 0.29 0.26 0.23 0.10 0.03 -0.04 -0.36	-0.15 -0.13 -0.14 -0.14 -0.11 -0.05 0.01 -0.06	0.09 0.10 0.11 0.12 0.13 0.15 0.13 0.00	0.20 0.20 0.16 0.17 0.19 0.25 0.20 -0.36	0.16 0.12 0.11 0.13 0.16 0.14 -0.10 -0.76	0.07 0.08 0.10 0.09 0.07 0.06 0.05	0.15 0.15 0.15 0.16 0.16 -0.26 -1.10	0.16 0.14 0.12 0.12 0.11 0.09 -0.24 -1.04	0.02 0.01 0.00 -0.01 0.00 0.02 0.03 -0.03 -0.29	-0.01 0.02 0.04 0.05 0.06 0.07 0.08 -0.02 -0.31	-0.03 -0.03 -0.03 -0.03 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02
Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan 2019 Feb Mar Apr May	1.71 1.37 1.33 1.25 1.19 1.07 0.88 0.87 0.80 0.75 -1.82 -10.38 -18.29	-0.01 0.00 0.00 -0.01 -0.01 -0.01 0.00 0.00	$\begin{array}{r} -0.17\\ -0.18\\ -0.27\\ -0.29\\ -0.26\\ -0.25\\ -0.24\\ -0.29\\ -0.29\\ -0.29\\ -0.55\\ -1.50\\ -2.30\end{array}$	0.00 -0.02 0.00 -0.01 0.01 0.01 0.01 0.00 -0.03 -0.08 -0.12	-0.20 -0.23 -0.25 -0.24 -0.26 -0.31 -0.30 -0.51 -1.30 -1.95	0.02 -0.02 -0.04 -0.03 0.00 -0.01 -0.03 -0.05 -0.10 -0.17	0.01 0.01 0.02 0.02 0.04 0.04 0.04 0.00 -0.03	0.07 0.10 0.04 0.02 0.03 0.08 0.02 -0.17 -1.11 -1.88	1.45 1.38 1.29 1.11 1.09 1.00 1.02 -1.10 -7.75 -14.07	0.21 0.22 0.25 0.19 0.15 0.10 0.10 -0.30 -1.59 -2.55	0.08 0.05 0.01 0.00 -0.01 -0.01 -0.20 -0.76 -1.24	0.07 0.05 0.03 0.01 0.01 0.01 0.00 -0.31 -1.15 -1.99	0.36 0.29 0.26 0.23 0.10 0.03 -0.04 -0.36 -0.72	-0.15 -0.13 -0.14 -0.14 -0.11 -0.05 0.01 -0.06 -0.13	0.09 0.10 0.11 0.12 0.13 0.15 0.13 0.00 -0.18	0.20 0.20 0.16 0.17 0.19 0.25 0.20 -0.36 -0.99	0.16 0.12 0.11 0.13 0.16 0.14 -0.10 -0.76 -1.41	0.07 0.08 0.10 0.09 0.07 0.06 0.05 0.06	0.15 0.15 0.15 0.16 0.16 -0.26 -1.10 -1.89	0.16 0.14 0.12 0.11 0.11 0.12 0.11 0.09 -0.24 -1.04 -1.83	0.02 0.01 0.00 -0.01 0.00 0.02 0.03 -0.03 -0.29 -0.57	-0.01 0.02 0.04 0.05 0.06 0.07 0.08 -0.02 -0.31 -0.59	-0.03 -0.03 -0.03 -0.03 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02
Apr May Jun Jul Aug Sep Oct Nov Dec 2020 Jan 2019 Feb Mar Apr	1.71 1.37 1.33 1.25 1.19 1.07 0.88 0.87 0.80 0.75 -1.82 -10.38	-0.01 0.00 0.00 -0.01 -0.01 -0.01 -0.01 0.00 0.00	-0.17 -0.18 -0.27 -0.29 -0.26 -0.25 -0.24 -0.29 -0.29 -0.29 -0.55 -1.50	0.00 -0.02 0.00 -0.01 0.01 0.01 0.01 0.00 -0.03 -0.08	-0.20 -0.23 -0.25 -0.24 -0.26 -0.26 -0.31 -0.30 -0.51 -1.30	0.02 -0.02 -0.04 -0.03 0.00 0.02 -0.01 -0.03 -0.05 -0.10	0.01 0.01 0.02 0.02 0.04 0.04 0.04 0.04	0.07 0.10 0.04 0.02 0.03 0.08 0.02 -0.17 -1.11	1.45 1.38 1.29 1.11 1.09 1.00 1.02 -1.10 -7.75	0.21 0.22 0.25 0.19 0.15 0.10 0.10 0.10 -0.30 -1.59	0.08 0.05 0.01 0.00 -0.01 -0.01 -0.20 -0.76	0.07 0.05 0.03 0.01 0.01 0.01 0.00 -0.31 -1.15	0.36 0.29 0.26 0.23 0.10 0.03 -0.04 -0.36	-0.15 -0.13 -0.14 -0.14 -0.11 -0.05 0.01 -0.06	0.09 0.10 0.11 0.12 0.13 0.15 0.13 0.00	0.20 0.20 0.16 0.17 0.19 0.25 0.20 -0.36	0.16 0.12 0.11 0.13 0.16 0.14 -0.10 -0.76	0.07 0.08 0.10 0.09 0.07 0.06 0.05	0.15 0.15 0.15 0.16 0.16 -0.26 -1.10	0.16 0.14 0.12 0.12 0.11 0.09 -0.24 -1.04	0.02 0.01 0.00 0.02 0.03 -0.03 -0.29 -0.57 -0.72	-0.01 0.02 0.04 0.05 0.06 0.07 0.08 -0.02 -0.31	-0.03 -0.03 -0.03 -0.03 -0.02 -0.02 -0.02 -0.02 -0.02 -0.02

seasonally adjusted 2016=100

The GVA output is designated as a National Statistic.
 Estimates cannot be regarded as accurate to the last digit shown.
 A complete run of data is available on the ONS website.
 Contributions are based on output GVA growth
 Please use additional caution when aggregating individual contributions for April - July 2020, as the larger-than-usual growth rates mean that, when summed, the rounded contributions may not accurately represent the higher level contribution being calculated.

Sources: For further information on these data please telephone 01633 456724 or E-mail gdp@ons.gov.uk

## **CONTRIB 2** Monthly GDP based on GVA (Gross Value Added)<sup>1</sup> Contributions to growth of gross value added at basic prices <sup>2,3,4,5</sup>

	Industry sections (SIC2007)																						
	Total GVA at basic	Agriculture, forestry and	Total production	Mining &		Electricity gas, steam	Water supply, sewerage		Total service	Wholesale and retail: repair of motor vehicles	Transport	Accommodation and food service	Information	Financial and insurance	Real estate	Professional, scientific and technical	Administrative and support a service	Public dministration and		Human health and social	Arts, entertainment	Other service	Activities of households as employers, undifferentiated
	prices	fishing	industries	quarrying N	lanufacturing	and air	etc	Construction	industries	and motorcycles	and storage	activities	Communication	activities	activities	activities	activities		Education	work activities	and recreation	activities	goods and services
Section 2016 weights	A-T 1000	A	B-E	<u>В</u> 10	C 100	D 17	E 10	F 60	G-T <b>796</b>	G 104	H 43	ا 30	J 63	<u>к</u> 73	L 138	M 75	N 48	0 47	P 59	Q 75	R 15	<u>s</u> 21	T 4
2016 weights	1000	7	138	10	100	17	10	60	790	104	43	30	63	13	130	75	40	4/	59	75	15	21	4
Contributon to growth, latest	t month on previ	ous month																					
	EDKH	EDKI	EDKJ	EDKK	EDKL	EDKM	EDKN	EDKO	EDKP	EDKQ	EDKR	EDKS	EDKT	EDKU	EDKV	EDKW	EDKX	EDKY	EDKZ	EDLA	EDLB	EDLC	EDLD
2018 Jul	0.27	0.00	0.04	0.04	-0.02	0.04	0.00	0.01	0.22	0.12	0.01	0.02	0.01	-0.03	0.00	0.10	-0.01	0.02	0.00	0.00	-0.02	-0.01	0.00
Aug Sep	0.12 0.01	0.00 0.00	-0.02 -0.08	0.01 -0.03	-0.02 -0.02	0.00 -0.03	0.00 0.00	-0.02 0.05	0.17 0.03	-0.01 -0.07	0.01 0.01	-0.03 0.01	0.17 0.09	-0.02 -0.02	-0.01 -0.01	0.01 0.02	0.00 -0.02	0.01 0.00	0.01 0.01	0.02 0.02	0.01 0.02	0.00 -0.03	0.00 0.00
Oct	0.29	0.00	-0.00	0.02	-0.02	0.02	-0.01	0.03	0.26	0.06	0.01	0.03	-0.08	-0.02	0.03	0.02	0.10	-0.01	0.01	0.02	0.02	0.00	0.00
Nov	0.13	0.00	-0.03	-0.03	0.01	-0.01	-0.01	-0.03	0.19	0.10	0.01	0.03	0.05	-0.02	-0.01	0.04	0.01	0.00	0.02	0.01	-0.01	-0.02	0.00
Dec	-0.36	-0.01	-0.07	0.00	-0.05	-0.02	0.00	-0.12	-0.16	-0.12	0.00	-0.01	0.06	-0.03	0.02	-0.08	-0.04	0.02	0.02	0.01	0.02	-0.02	0.00
2019 Jan	0.46	0.00	0.11	-0.02	0.10	0.03	-0.01	0.12	0.22	0.15	0.02	0.03	0.07	-0.05	0.01	-0.07	0.06	0.03	0.02	0.01	-0.02	-0.02	-0.01
Feb	0.35	0.00	0.02	0.02	0.05	-0.05	0.00	0.13	0.20	0.02	0.00	0.01	0.02	-0.04	0.00	0.08	0.04	0.02	0.02	0.01	0.00	0.02	0.00
Mar	0.07	0.00	0.15	0.05	0.12	-0.01	0.01	-0.07	-0.01	0.04	0.01	-0.02	-0.05	-0.03	0.02	0.01	0.00	0.01	0.01	0.00	0.00	0.00	-0.01
Apr Mov	-0.48	0.00	-0.43	-0.04 0.00	-0.43	0.05	0.00 0.03	0.00 0.00	-0.05	0.01	0.00	-0.02 0.00	0.09	-0.02	0.01	-0.04 0.00	-0.05 0.03	0.00 0.00	0.01	0.00	-0.03 0.00	-0.01 0.02	0.00
May Jun	0.20 0.21	0.00 0.00	0.13 -0.01	-0.01	0.09 -0.01	0.01 0.01	0.03	-0.10	0.06 0.32	0.01 -0.05	-0.02 -0.01	0.00	-0.03 0.10	0.01 0.04	0.02 -0.02	0.00	-0.02	0.00	0.01 0.02	0.02 0.03	0.00	0.02	-0.01 0.00
Jul	0.38	0.00	-0.02	-0.01	0.02	-0.02	-0.01	0.08	0.32	0.05	0.08	-0.02	0.03	0.04	0.02	0.04	0.02	0.00	0.02	0.02	-0.03	0.02	0.00
Aug	-0.14	0.00	-0.09	0.00	-0.08	-0.03	0.01	0.00	-0.05	0.03	-0.05	-0.04	-0.10	0.02	0.01	0.04	-0.04	0.01	0.00	0.02	0.04	0.01	0.00
Sep	-0.02	0.00	0.00	0.06	-0.04	-0.01	0.00	0.03	-0.06	-0.02	-0.03	-0.02	0.08	-0.04	0.01	-0.01	-0.02	0.01	0.01	0.00	-0.04	0.01	0.00
Oct	0.21	0.00	0.05	-0.07	0.06	0.05	-0.01	-0.13	0.29	0.06	0.04	0.01	0.00	0.02	0.03	0.07	0.03	0.02	0.01	-0.01	0.00	0.01	0.00
Nov	-0.34	0.00	-0.12	0.02	-0.15	0.02	0.01	0.07	-0.30	-0.12	-0.06	0.03	-0.11	-0.07	-0.01	-0.07	0.05	0.00	0.03	0.01	0.05	-0.01	0.00
Dec	0.18	0.00	-0.03	-0.02	0.01	-0.03	0.01	-0.02	0.23	-0.02	0.02	0.01	0.07	0.00	0.03	0.06	0.03	0.01	0.03	0.01	0.00	-0.01	0.00
2020 Jan	0.16	0.00	0.02	0.01	0.06	-0.06	0.01	0.07	0.07	0.13	0.04	-0.02	-0.19	0.03	0.03	-0.03	0.02	0.00	0.03	-0.01	0.01	0.02	0.00
2019 Feb Mar	-0.04 -6.92	0.00 -0.01	0.05 -0.57	0.00 -0.06	0.08 -0.50	-0.01 -0.02	-0.02 0.01	-0.11 -0.33	0.03 -6.01	-0.07 -1.05	-0.04 -0.54	0.01 -0.89	0.08 -0.09	0.04 -0.01	0.02 -0.06	0.06 -0.17	-0.06 -0.57	0.00 0.00	0.00 -1.23	-0.02 -0.94	0.00 -0.21	-0.01 -0.28	0.00 -0.01
Apr	-20.04	-0.04	-2.76	-0.00	-2.39	-0.02	-0.09	-2.48	-14.73	-2.84	-1.16	-0.09	-0.94	-0.36	-0.35	-1.63	-1.45	0.00	-1.35	-0.94 -1.54	-0.61	-0.20	-0.13
Mav	2.39	0.01	0.84	0.06	0.76	0.00	0.01	0.35	1.20	1.22	0.20	0.02	-0.14	0.12	-0.10	-0.30	-0.05	0.01	0.21	0.07	-0.11	0.04	0.00
Jun	8.68	0.02	1.30	0.09	1.06	0.07	0.06	1.14	6.21	2.77	0.59	0.25	0.54	0.10	-0.05	0.51	0.65	0.00	0.30	0.16	0.27	0.07	0.03
Jul	6.56	0.01	0.73	0.01	0.62	0.04	0.04	0.97	4.83	0.85	0.33	0.80	0.22	0.10	0.11	0.29	0.21	0.01	0.97	0.29	0.18	0.45	0.03
Contribution to growth, lates	est month on sar	ne month a year	ago																				
	EDLE	EDLF	EDLG	EDLH	EDLI	EDLJ	EDLK	EDLL	EDLM	EDLN	EDLO	EDLP	EDLQ	EDLR	EDLS	EDLT	EDLU	EDLV	EDLW	EDLX	EDLY	EDLZ	EDMA
2018 Jul	2.11	-0.03	0.25	0.06	0.18	-0.02	0.03	0.09	1.80	0.50	0.11	0.05	0.28	-0.11	0.12	0.41	0.23	0.07	0.04	0.01	0.02	0.03	0.00
Aug	1.96	-0.03	0.21	0.08	0.12	-0.02	0.04	-0.01	1.80	0.42	0.12	0.07	0.41	-0.09	0.10	0.38	0.21	0.08	0.04	0.03	0.01	-0.01	0.01
Sep	1.71	-0.03	-0.02	0.02	-0.01	-0.06	0.03	0.06	1.70	0.33	0.11	0.11	0.45	-0.09	0.11	0.33	0.15	0.08	0.05	0.06	0.03	-0.02	0.01
Oct Nov	2.11 1.92	-0.02 -0.02	-0.08 -0.11	0.03 0.00	-0.12 -0.09	-0.01 -0.04	0.02 0.02	0.20 0.04	2.01 2.01	0.39 0.46	0.12 0.15	0.13 0.14	0.35 0.41	-0.05 -0.09	0.10 0.07	0.43 0.39	0.21 0.18	0.06 0.06	0.08 0.10	0.12 0.11	0.04 0.04	-0.01 -0.01	0.02 0.02
Dec	1.92	-0.02	-0.16	0.00	-0.09	-0.04	0.02	-0.23	1.65	0.40	0.15	0.14	0.41	-0.09	0.07	0.39	0.10	0.00	0.10	0.09	0.04	-0.01	0.02
2019 Jan	1.63	-0.02	-0.03	0.01	-0.09	0.02	0.03	0.06	1.61	0.47	0.15	0.12	0.49	-0.23	0.06	0.09	0.10	0.07	0.12	0.08	0.02	-0.02	0.00
Feb	2.32	-0.01	-0.04	0.05	0.02	-0.12	0.03	0.27	2.09	0.45	0.19	0.16	0.58	-0.31	0.05	0.28	0.27	0.13	0.15	0.09	0.03	-0.01	0.00
Mar	2.30	-0.01	0.12	0.12	0.18	-0.17	0.02	0.31	1.87	0.57	0.22	0.12	0.41	-0.33	0.05	0.23	0.25	0.14	0.15	0.09	0.02	-0.05	-0.01
Apr	1.48	-0.01	-0.24	0.00	-0.22	-0.05	0.03	0.23	1.50	0.47	0.18	0.07	0.47	-0.33	0.06	0.11	0.17	0.14	0.14	0.10	-0.02	-0.05	-0.02
May	1.36	-0.01	-0.06	0.02	-0.17	0.06	0.04	0.15	1.27	0.28	0.11	0.05	0.42	-0.29	0.07	0.12	0.20	0.12	0.15	0.12	-0.03	-0.03	-0.02
Jun	1.26	0.00	-0.21	0.01	-0.24	0.03	0.00	0.01	1.46	0.25	0.05	0.10	0.52	-0.23	0.06	0.25	0.09	0.09	0.16	0.14	0.02	-0.03	-0.03
Jul	1.38	0.00	-0.27 -0.33	-0.03	-0.20	-0.04	0.00 0.02	0.09 0.11	1.56 1.34	0.17	0.13 0.07	0.06 0.05	0.54 0.27	-0.17 -0.13	0.07	0.19 0.22	0.19 0.15	0.07 0.07	0.16 0.15	0.16	0.01 0.04	0.00 0.01	-0.03 -0.03
Aug Sep	1.12 1.09	0.00 -0.01	-0.33 -0.26	-0.04 0.06	-0.26 -0.28	-0.06 -0.03	0.02	0.11	1.34	0.21 0.27	0.07	0.05	0.27	-0.13	0.09 0.11	0.22	0.15	0.07	0.15	0.16 0.14	-0.04	0.01	-0.03
Oct	1.09	-0.01	-0.20	-0.04	-0.28	0.03	0.01	-0.07	1.20	0.27	0.03	0.03	0.27	-0.13	0.11	0.19	0.14	0.08	0.13	0.14	-0.01	0.04	-0.03
Nov	0.53	-0.01	-0.29	0.01	-0.33	0.03	0.03	0.03	0.79	0.05	-0.03	0.01	0.17	-0.16	0.12	0.09	0.12	0.11	0.15	0.11	0.02	0.06	-0.03
Dec	1.08	0.00	-0.24	-0.01	-0.28	0.02	0.03	0.13	1.18	0.14	-0.01	0.03	0.19	-0.13	0.13	0.22	0.19	0.10	0.16	0.11	0.01	0.06	-0.02
2020 Jan	0.78	0.00	-0.33	0.02	-0.32	-0.08	0.06	0.08	1.02	0.12	0.02	-0.02	-0.07	-0.05	0.15	0.27	0.16	0.07	0.17	0.10	0.04	0.09	-0.02
2019 Feb	0.39	0.00	-0.30	0.00	-0.29	-0.03	0.03	-0.16	0.85	0.03	-0.03	-0.02	-0.01	0.03	0.17	0.25	0.06	0.05	0.15	0.07	0.04	0.07	-0.02
Mar	-6.62	0.00	-1.02	-0.11	-0.91	-0.04	0.03	-0.42	-5.17	-1.06	-0.58	-0.89	-0.05	0.05	0.08	0.07	-0.51	0.05	-1.09	-0.87	-0.18	-0.21	-0.02
Apr	-24.98	-0.04	-3.19	-0.14	-2.72	-0.23	-0.06	-2.75	-18.97	-3.75	-1.67	-2.56	-1.02	-0.26	-0.26	-1.42	-1.83	0.06	-2.37	-2.33	-0.73	-0.78	-0.14
May	-23.33	-0.04	-2.68	-0.10	-2.23	-0.23	-0.08	-2.49	-18.10	-2.84	-1.49	-2.53	-1.10	-0.19	-0.36	-1.64	-1.89	0.07	-2.22	-2.29	-0.80	-0.77	-0.12
Jun Jul	-16.85 -11.73	-0.02 -0.01	-1.67 -1.04	-0.03 -0.02	-1.41 -0.90	-0.18 -0.12	-0.03 0.01	-1.51 -0.78	-13.62 -9.88	-0.66 0.00	-1.02 -0.82	-2.40 -1.71	-0.79 -0.63	-0.15 -0.09	-0.38 -0.29	-1.37 -1.16	-1.36 -1.27	0.07 0.08	-2.00 -1.19	-2.19 -1.96	-0.64 -0.46	-0.73 -0.38	-0.10 -0.08
001	11.75	-0.01	-1.04	5.02	0.00	0.12	5.01	-0.70	-0.00	0.00	0.02	-1.71	-0.05	-0.05	-0.29	-1.10	-1.21	0.00	1.13	-1.30	-0.40	0.00	-0.00

seasonally adjusted 2016=100

The GVA output is designated as a National Statistic.
 Estimates cannot be regarded as accurate to the last digit shown.
 A complete run of data is available on the ONS website.
 Contributions are based on output GVA growth
 Please use additional caution when aggregating individual contributions for April - July 2020, as the larger-than-usual growth rates mean that, when summed, the rounded contributions may not accurately represent the higher level contribution being calculated.

Sources: For further information on these data please telephone 01633 456724 or E-mail gdp@ons.gov.uk