

Article

# UK productivity flash estimate: October to December 2019

Flash estimate of labour productivity for Quarter 4 (Oct to Dec) 2019 based on latest data from GDP first quarterly estimate and labour market statistics.

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## 1 . Main points

- Labour productivity for Quarter 4 (Oct to Dec) 2019, as measured by output per hour, grew by 0.3%, when compared with the same quarter in the previous year.
- In Quarter 4 2019, output per worker showed no growth, compared with the same quarter in the previous year.
- The labour productivity flash publication uses the latest labour market statistics and gross domestic product (GDP) first quarterly estimate to calculate labour productivity.

## 2 . Output per hour and output per worker

Output per hour in Quarter 4 (Oct to Dec) 2019 grew by 0.3%, compared with the same quarter a year ago. This was a result of gross value added (GVA) growing faster than hours worked, at 1.1% and 0.8% respectively. GVA is a measure of the production of goods and services in the economy and is closely aligned to gross domestic product (GDP).

In Quarter 4 2019, growth in the number of people employed (1%) more than counteracted a fall of 0.2% in average actual weekly hours worked compared with the same quarter in the previous year. Total weekly hours worked therefore grew by 0.8%.

There was no growth in output per worker in Quarter 4 2019 compared with the same quarter in the previous year, as GVA and employment grew at a similar pace.

The latest growth in employment was driven by a strong increase (3.9%) in the number of people who were self-employed, along with a moderate growth (0.5%) in the number of employees, compared with the same quarter a year ago.

In 2019, there was no growth in output per hour compared with the previous year. Over the same period, output per worker grew marginally by 0.3%.

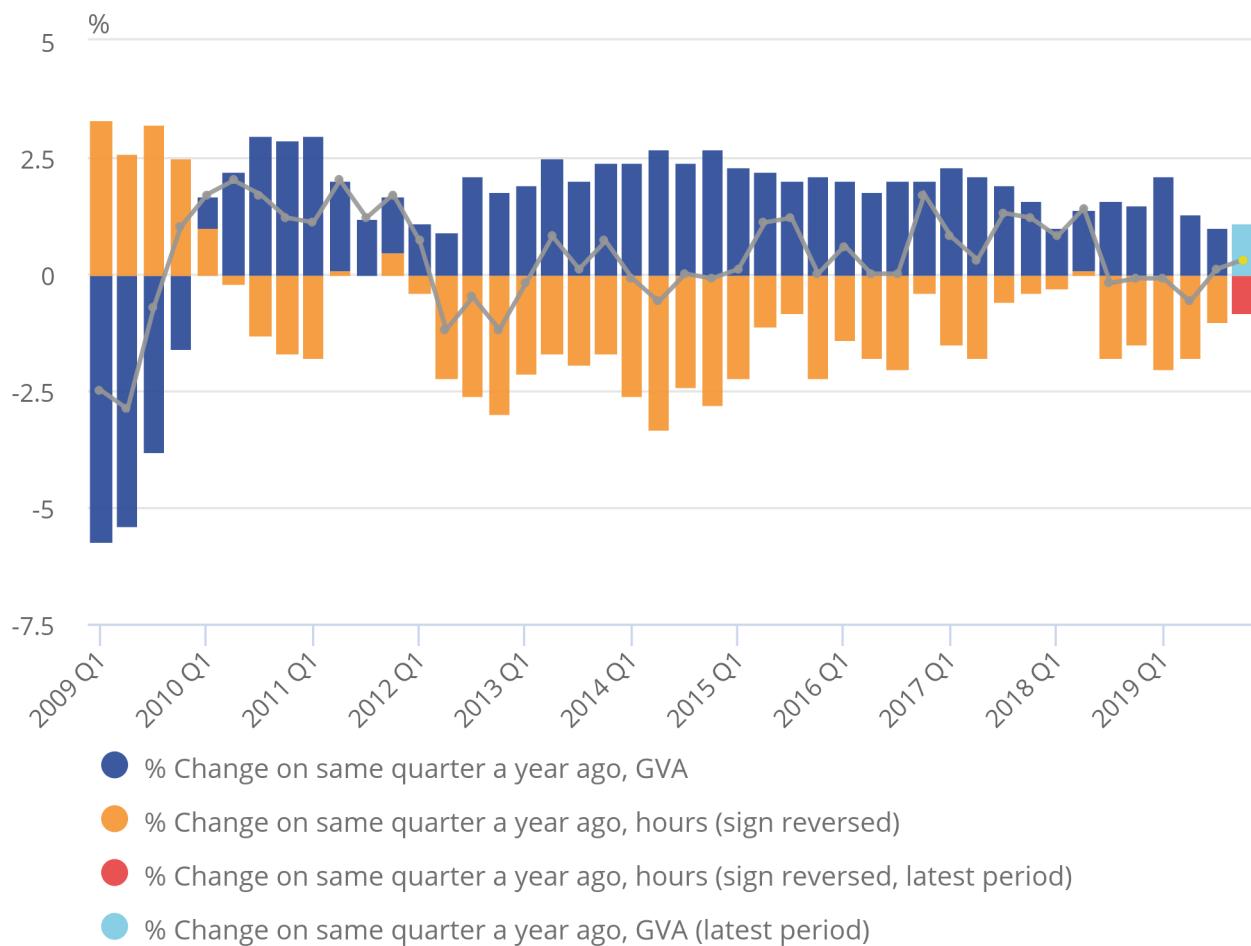
This flash estimate of UK productivity uses the first available information on output and labour inputs for the latest quarter; earlier quarters are consistent with the [Labour productivity statistics](#). The latest flash estimate data have been added onto previous productivity statistics. These data may be revised in subsequent months. As such, the ONS releases the more detailed Labour productivity bulletin after the publication of [GDP quarterly national accounts](#).

**Figure 1: Compared with the same quarter in the previous year, output per hour grew in Quarter 4 2019 as gross value added grew marginally faster than hours worked**

Seasonally adjusted, Quarter 1 (Jan to Mar) 2009 to Quarter 4 (Oct to Dec) 2019, UK

Figure 1: Compared with the same quarter in the previous year, output per hour grew in Quarter 4 2019 as gross value added grew marginally faster than hours worked

Seasonally adjusted, Quarter 1 (Jan to Mar) 2009 to Quarter 4 (Oct to Dec) 2019, UK



Source: Office for National Statistics

Notes:

1. Estimates of hours worked have had their sign reversed to reflect how they affect output per hour. An increase in hours worked will contribute negatively to output per hour; while a decrease in hours worked will contribute positively to output per hour.

Figure 1 shows contributions to growth in output per hour since 2009. Productivity, as measured by output per worker, remained unchanged in Quarter 4 2019 compared with the same quarter a year ago.

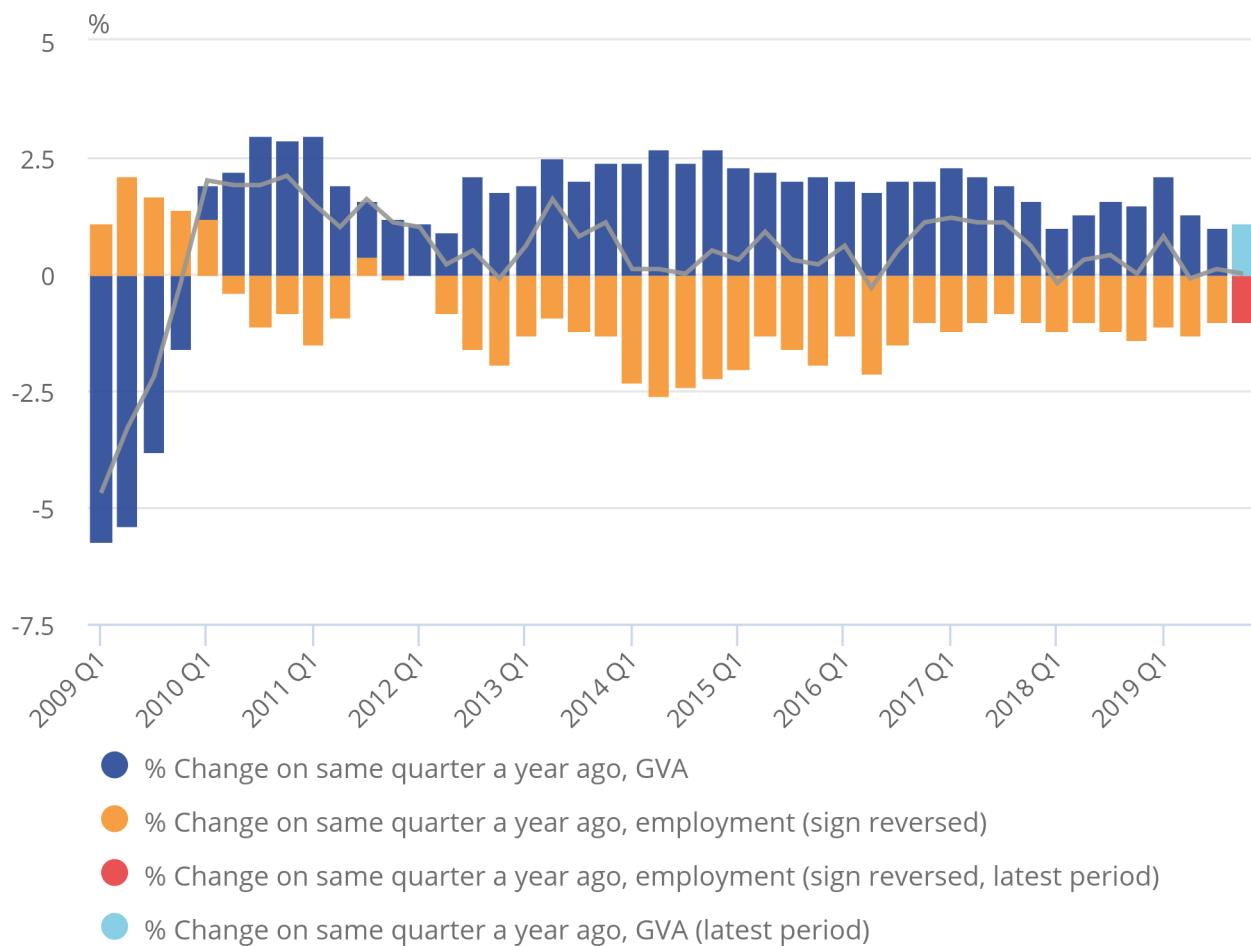
Over a longer period, UK productivity growth has been relatively weak – in particular, since the onset of the economic downturn in Quarter 1 (Jan to Mar) 2008 – because GVA has grown at a more moderate pace compared with labour inputs during this period (Figure 2).

**Figure 2: Compared with the same quarter in the previous year, output per worker remained unchanged in Quarter 4 2019 as hours worked and gross value added grew at the same pace**

Seasonally adjusted, Quarter 1 (Jan to Mar) 2009 to Quarter 4 (Oct to Dec) 2019, UK

Figure 2: Compared with the same quarter in the previous year, output per worker remained unchanged in Quarter 4 2019 as hours worked and gross value added grew at the same pace

Seasonally adjusted, Quarter 1 (Jan to Mar) 2009 to Quarter 4 (Oct to Dec) 2019, UK



Source: Office for National Statistics

Notes:

- Estimates of employment have had their sign reversed to reflect how they affect output per worker. An increase in employment will contribute negatively to output per worker; while a decrease in employment will contribute positively to output per worker.
- Due to rounding, values of growth in output per worker for quarter 4 (Oct to Dec) 2019 may not add to zero when calculated from growth of the individual components, i.e. growth in GVA and growth in employment.

Table 1: Headline labour productivity indicators for the UK  
 UK, Quarter 4 (Oct to Dec) 2016 to Quarter 4 (Oct to Dec) 2019, seasonally adjusted

### Whole economy

	Quarter on same quarter in previous year	Quarter on previous quarter		
	Output per hour (growth %)	Output per worker (growth %)	Output per hour (growth %)	Output per worker (growth %)
2016 Q4 1.7	1.1	0.3	0.6	
2017 Q1 0.8	1.2	0.0	0.3	
2017 Q2 0.3	1.1	-0.3	-0.1	
2017 Q3 1.3	1.1	1.3	0.3	
2017 Q4 1.2	0.6	0.2	0.1	
2018 Q1 0.8	-0.2	-0.4	-0.5	
2018 Q2 1.4	0.3	0.3	0.4	
2018 Q3 -0.2	0.4	-0.3	0.4	
2018 Q4 -0.1	0.0	0.3	-0.3	
2019 Q1 -0.1	0.8	-0.4	0.3	
2019 Q2 -0.6	-0.1	-0.2	-0.5	
2019 Q3 0.1	0.1	0.4	0.6	
2019 Q4 0.3	0.0	0.3	-0.5	

Source: Office for National Statistics

### Notes

1. Quarter 4 2019 contains data from the first available information on output and labour inputs. Data for the earlier quarters are consistent with the labour productivity National Statistics. [Back to table](#)

As an alternative to measuring growth relative to the same quarter a year ago, growth can also be measured relative to the previous quarter. Quarterly movements in labour productivity can be volatile and may not indicate the long-term trend of labour productivity growth in the UK. In this release we headline the latest quarter's growth rates with the same period a year ago to allow comparison with the [Labour productivity statistics](#).

Output per hour grew by 0.3% during Quarter 4 2019 compared with the previous quarter. This follows a slightly higher growth of 0.4% in Quarter 3 (July to Sept) 2019. During the same period, output per worker fell by 0.5%; this was in contrast to the 0.6% growth seen in Quarter 3 2019.

### Historical context

Both employment – which captures the total number of people in work – and total hours – which captures both changes in employment and working patterns – fell in the course of the economic downturn, though total hours fell further reflecting a fall in the average hours of those in employment.

However, gross value added (GVA) fell by a larger proportion in the economic downturn than either hours or employment and has grown slowly by historical standards during the recovery. In consequence, productivity growth has been subdued since the downturn and has recovered more slowly compared with previous downturns.

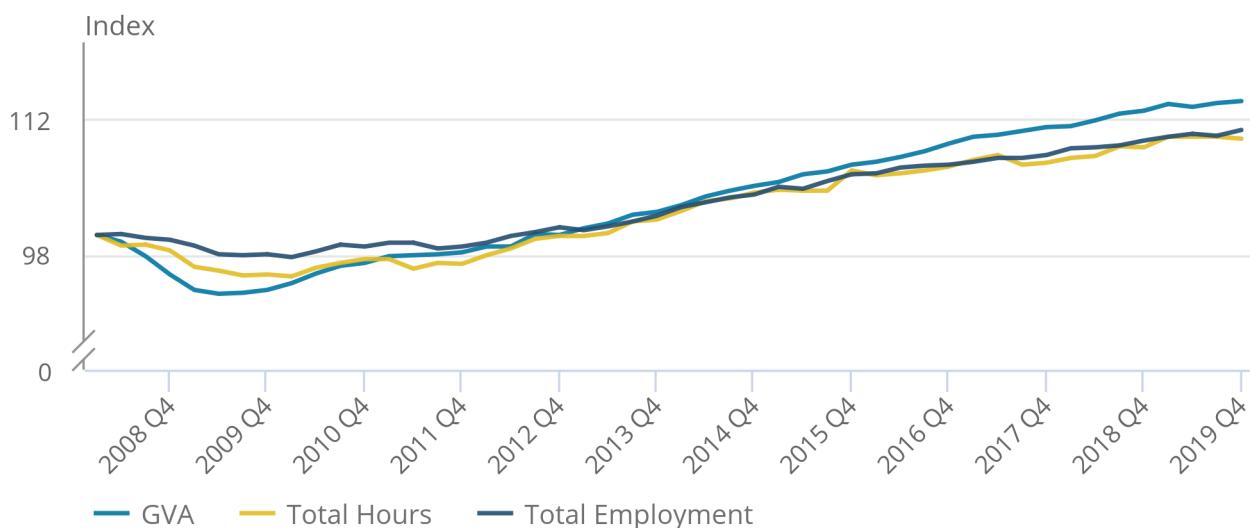
Figure 3 shows these relative movements over the post-downturn period. It indicates that in Quarter 4 2019, all three economic indicators were above their pre-recession levels, with GVA, hours and employment being up by 13.9%, 10.0% and 10.9% respectively.

**Figure 3: Gross value added, total hours worked and employment are all at least 10% above their pre-downturn levels**

Seasonally adjusted, Quarter 1 (Jan to Mar) 2008 to Quarter 4 (Oct to Dec) 2019, UK

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Seasonally adjusted, Quarter 1 (Jan to Mar) 2008 to Quarter 4 (Oct to Dec) 2019, UK



Source: Office for National Statistics

Growth in GVA during Quarter 4 2019, compared with the same quarter a year ago, was mainly driven by services, of which government and other services made the largest contribution of 0.4 percentage points. In contrast, production reduced GVA by 0.3 percentage points.

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

This flash estimate of UK productivity uses the first available information on output and labour input for the latest quarter, Quarter 4 (Oct to Dec) 2019. These data may be revised in subsequent months. As such, we release the more detailed [Labour productivity bulletin](#) after the publication of [GDP quarterly national accounts](#).

This release uses gross value added (GVA) to determine growth in output for the latest quarter and uses the latest estimates from the [GDP first quarterly estimate](#) released just before this publication. Estimates of earlier quarters are consistent with the [Labour productivity national statistics](#).

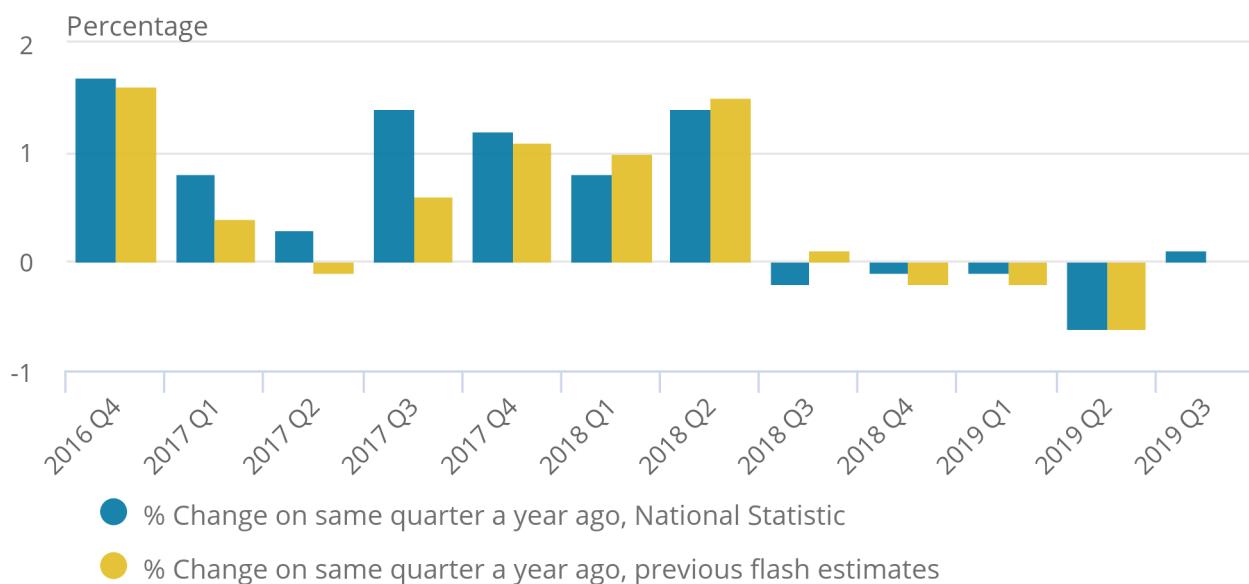
## 4 . Data sources and revisions

Gross domestic product (GDP) data for Quarter 4 2019 are from the [GDP first quarterly estimate, UK: October to December 2019](#), published on 11 February 2020.

Contributions are to output gross value added (GVA) and therefore may not sum to the percentage change in average GDP. More information on how GDP and GVA are measured can be found in the [Short Guide to National Accounts](#).

**Figure 4: Output per hour flash estimate revisions, Quarter 4 (Oct to Dec) 2016 to Quarter 3 (July to Sept) 2019, UK**

Figure 4: Output per hour flash estimate revisions, Quarter 4 (Oct to Dec) 2016 to Quarter 3 (July to Sept) 2019, UK



Source: Office for National Statistics

Labour market data for the same period are from the [Labour market statistics – February 2020 statistical bulletin](#), published on 18 February 2020.

Data for the earlier quarters, Quarter 1 2008 until Quarter 3 2019, are consistent with the [Labour productivity national statistics](#). Figure 4 shows revisions to growth rates on the quarter a year ago compared with the first flash estimates published for the corresponding period. The aim is to show the reliability of the initial flash estimates over time.

Details of the [policy governing the release of new data](#) are available from the [UK Statistics Authority](#).