Article

UK productivity flash estimate: January to March 2022

Flash estimate of labour productivity for Quarter 1 (January to March) 2022 based on the latest data from the gross domestic product (GDP) first quarterly estimate and labour market statistics.

Contact:
Robert Mwemeke and George Cockford
productivity@ons.gov.uk
+44 1633 455086

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1 . Main points

- Productivity as measured by output per hour worked fell 0.7% between Quarter 4 (Oct to Dec) 2021 and Quarter 1 (Jan to Mar) 2022.

- Output per hour worked remained 1.9% above pre-coronavirus pandemic levels; however, this improvement does not appear to be significantly different to that which can be projected using the 2009 to 2019 trend, suggesting that no fundamental change in productivity behaviour resulting from the coronavirus pandemic is yet visible in these data.

- Growth in output per hour is now led by productivity growth within industries compared with the pre-coronavirus pandemic level, rather than the fact that furlough disproportionately affected lower productivity sectors, skewing the remaining hours worked towards higher productivity sectors, which caused the average productivity of those in work to increase during the coronavirus pandemic.

- Productivity growth was supported by falls in hours worked in all four broadly defined industries compared with 2019.

2 . Latest statistics

The labour productivity flash estimate uses the latest labour market statistics and the gross value added (GVA) first quarterly estimate to provide a first look at UK productivity for Quarter 1 (Jan to Mar) 2022.

The headline statistics we focus on compare UK productivity with its pre-coronavirus pandemic levels, when growth was more stable. This gives us a more useful perspective on how the coronavirus pandemic has affected UK productivity as the data in 2020 and 2021 are volatile. Thus, we continue to recommend looking at longer-term trends.

Table 1: The latest productivity statistics

Period	Output per hour worked			Output per worker		
	Quarter vs 2019 pre-coronavirus pandemic levels (%)	Quarter-on-year (%)	Quarter-on-quarter (%)	Quarter vs 2019 pre-coronavirus pandemic levels (%)	Quarter-on-year (%)	Quarter-on-quarter (%)
2020 Q1	-0.4	0.0	-0.8	-2.9	-2.9	-2.7
2020 Q2	-2.1	-1.9	-1.7	-20.9	-20.8	-18.5
2020 Q3	6.0	5.8	8.3	-6.2	-6.6	18.5
2020 Q4	1.9	1.5	-3.9	-4.2	-4.0	2.1
2021 Q1	2.7	3.1	0.8	-5.4	-2.6	-1.3
2021 Q2	2.9	5.1	0.2	-0.5	25.8	5.2
2021 Q3	1.3	-4.4	-1.5	-0.3	6.3	0.2
2021 Q4	2.6	0.7	1.3	1.1	5.5	1.4
2022 Q1	1.9	-0.8	-0.7	1.6	7.4	0.5

Source: Source: Office for National Statistics – UK productivity flash estimate

3 . Output per hour worked

Output per hour worked fell by 0.7% between Quarter 4 (Oct to Dec) 2021 and Quarter 1 (Jan to Mar) 2022. However, it remains 1.9% above its pre-coronavirus pandemic levels. This improvement compared with the pre-coronavirus pandemic peak does not appear to be significantly different to that which can be projected using the 2009 to 2019 trend, suggesting that no fundamental change in productivity behaviour resulting from the coronavirus pandemic is yet visible in these data.

The quarter-on-quarter fall was driven by a 1.4% increase in hours worked. Hours worked grew faster than gross value added (GVA) over the quarter but remained 1.0% below their pre-coronavirus pandemic level (2019 average). GVA was 0.9% above pre-coronavirus pandemic levels.

Figure 1: Output per hour worked remains above pre-coronavirus pandemic levels but fell 0.7% on the quarter

Index 2019 = 100, output per hour worked, gross value added, total hours worked, UK, Quarter 1 2008 to Quarter 1 2022

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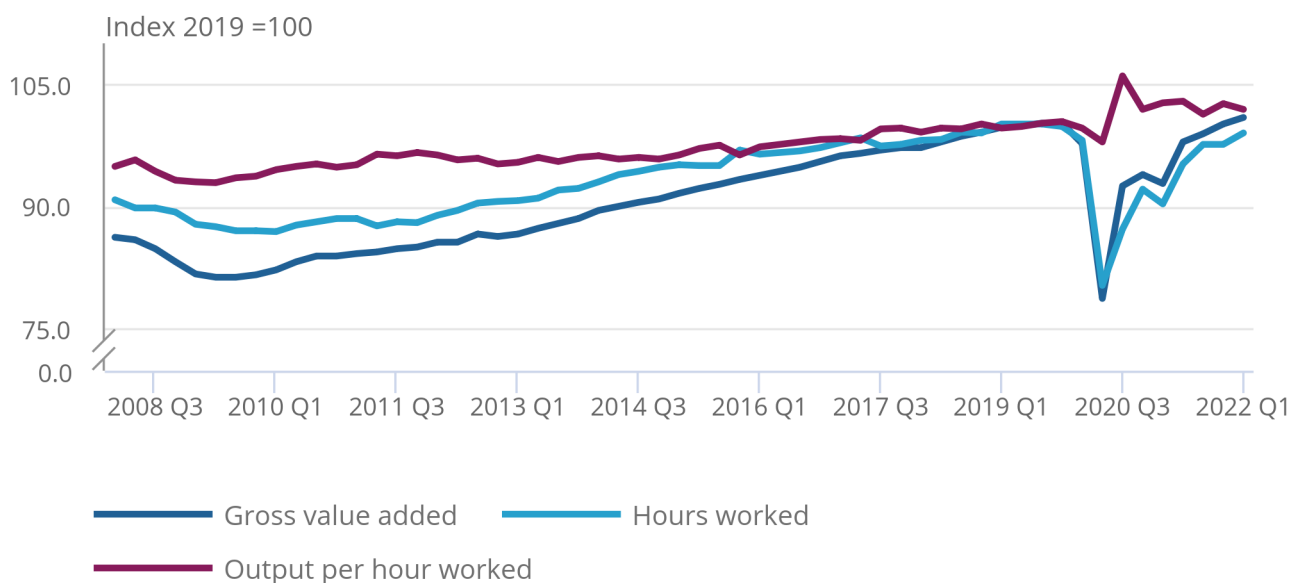
Source: Office for National Statistics – UK productivity flash estimate

4 . Output per worker

At the Office for National Statistics (ONS), we also report output per worker as a measure of productivity. This is the ratio of total output relative to the number of workers. Output per worker grew 0.5% in Quarter 1 (Jan to Mar) 2022, leaving it 1.6% above pre-coronavirus pandemic levels. This is the fourth consecutive quarterly growth and only the second quarter in which output per worker was above pre-coronavirus pandemic levels since the beginning of the coronavirus pandemic era.

This is the fourth consecutive quarter of growth driven by an increase of 0.8% in gross value added (GVA), which was larger than the 0.3% increase in employment. Employment remains 0.7% below its pre-coronavirus pandemic levels.

Figure 2: Output per worker increased for the fourth consecutive quarter

Index 2019 = 100, output per worker, gross value added, total hours worked, UK, Quarter 1 2008 to Quarter 1 2022

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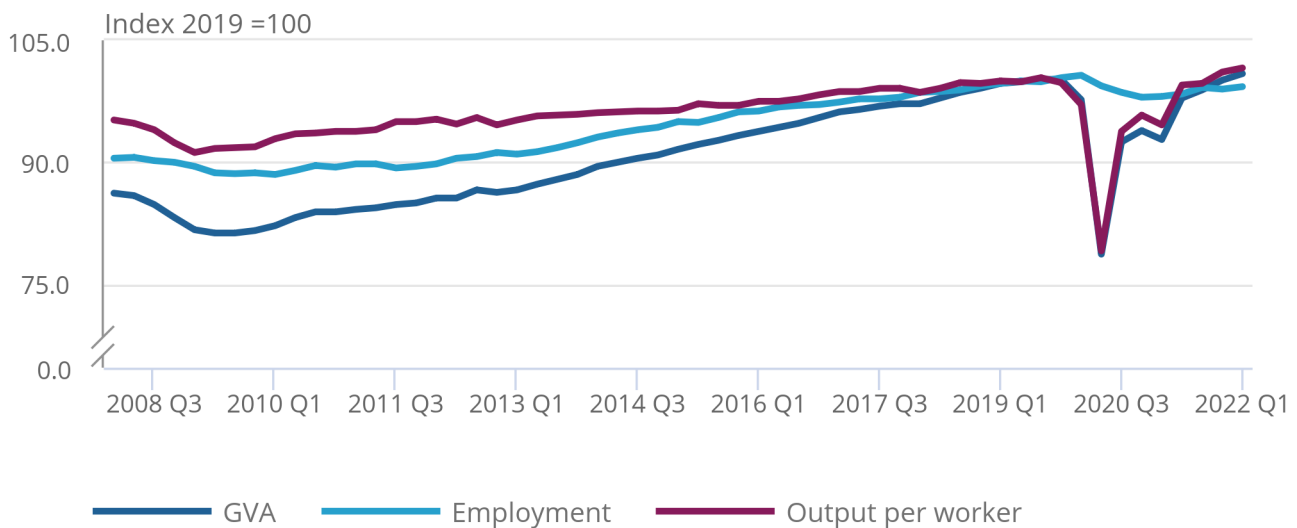
Source: Office for National Statistics – UK productivity flash estimate

5 . Allocation effect

Changes in labour productivity growth can be driven by productivity growth within industries (the within-industry effect), shifts in the structure of the economy between more or less productive industries (reallocation effect) or a combination of both. Throughout the coronavirus (COVID-19) pandemic period, growth in productivity as measured by output per hour worked was significantly driven by reallocation effects, as furlough schemes more heavily affected lower productivity sectors. The recent declines in the reallocation effects reflect the return to work of workers in these sectors following the end of the furlough scheme and the lifting of all coronavirus pandemic restrictions.

In Quarter 1 (Jan to Mar) 2022, reallocation effects had virtually no contribution to output per hour productivity growth relative to 2019 despite hours worked continuing to be below their pre-coronavirus pandemic peak. This results in within-industry productivity growth (more output per hour worked within each industry, on average) taking the leading role in the continued improvement relative to the pre-coronavirus pandemic peak.

Figure 3: Between-industry reallocation raised overall productivity during the lockdown period, then subsided, and remained close to zero in the latest period compared with 2019

Output per hour worked growth, decomposed into between and within-industry effects, cumulative 2019, percentage, Quarter 1 (Jan to Mar) 2019 to Quarter 1 2022

Figure 3: Between-industry reallocation raised overall productivity during the lockdown period, then subsided, and remained close to zero in the latest period compared with 2019

Output per hour worked growth, decomposed into between and within-industry effects, cumulative 2019, percentage, Quarter 1 (Jan to Mar) 2019 to Quarter 1 2022
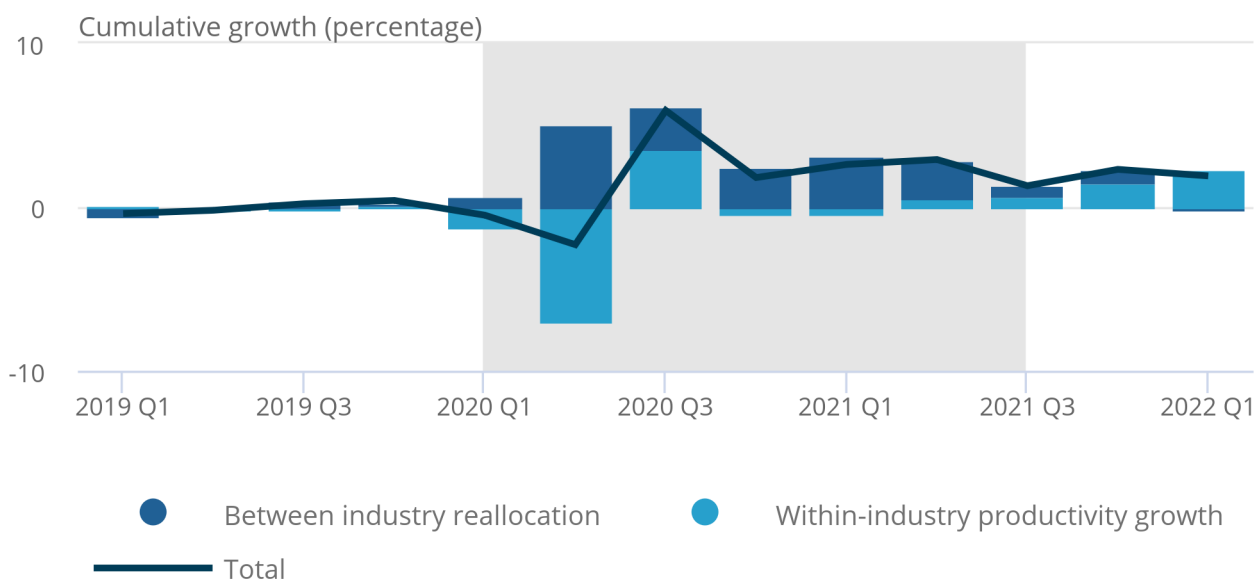
Source: Office for National Statistics – UK productivity flash estimate

Notes:

1. The reallocation effect is calculated across 26 industry sections. Slightly different results may be obtained depending on the industry granularity entered into the analysis.

2. The reallocation effect and growth within industries may not add up to the output per hour total. This is because of the exclusion of the National Accounts balancing value. See our Labour productivity by industry division dataset for more information.

6 . Output per hour worked by industry

Splitting the UK economy into four broadly defined industries, all four showed an increase in output per hour worked for Quarter 1 (Jan to Mar) 2022 compared with 2019 average. The increases in productivity were largely the result of falls in hours worked rather than increases in gross value added (GVA). All broadly defined industries showed a fall in hours worked in Quarter 1 2022 compared with the 2019 average. Although GVA in the whole economy has returned to pre-coronavirus pandemic levels, GVA in non-manufacturing production remains well below the 2019 average.

GVA in both manufacturing and construction industries remained slightly below the 2019 average.

Figure 4: Productivity growth was supported by falls in hours worked in all four broadly defined industries compared with 2019

Output per hour, hours worked and gross value added, quarter versus pre-coronavirus pandemic, percentage change, UK, Quarter 1 (Jan to Mar) 2022

Figure 4: Productivity growth was supported by falls in hours worked in all four broadly defined industries compared with 2019

Output per hour, hours worked and gross value added, quarter versus pre-coronavirus pandemic, percentage change, UK, Quarter 1 (Jan to Mar) 2022
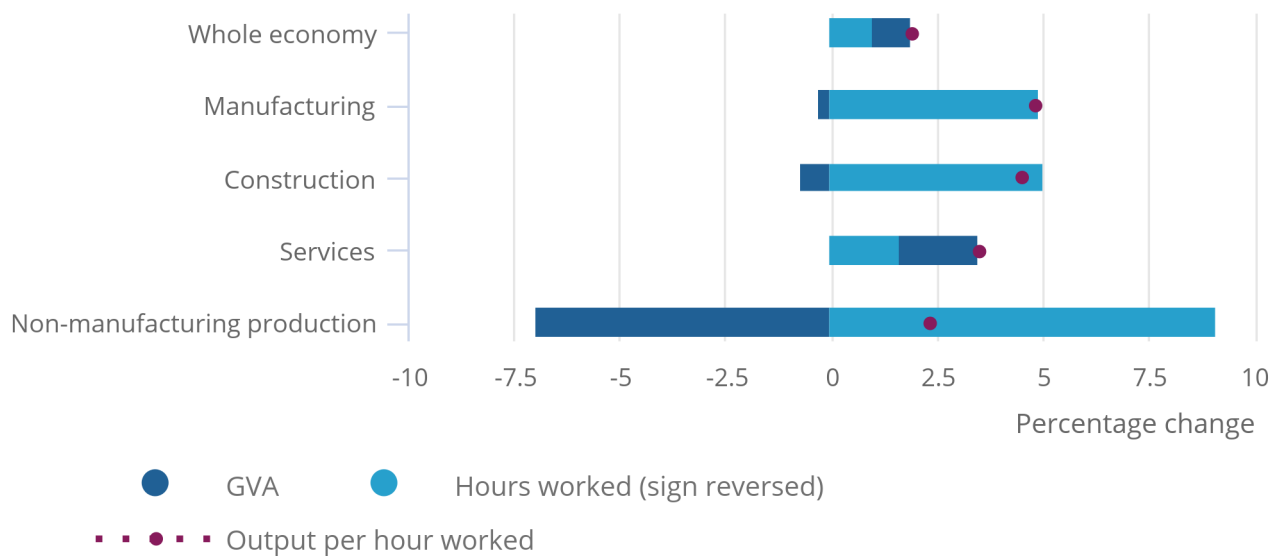
Source: Office for National Statistics – UK productivity flash estimate

Notes:

1. Non-manufacturing production refers to sections A, B, D and E of the standard industrial classification (SIC 2007). This covers agriculture, mining and quarrying, energy, water and waste industries.

2. Estimates of hours worked are sign reversed to reflect how they affect output per hour. An increase in hours worked will reduce output per hour, while a decrease in hours worked will lift output per hour.

3. Bars are not weighted by size in the economy so do not represent contributions to growth.

7 . UK productivity flash estimate data

8 . Glossary

Labour productivity

Labour productivity measures how many units of output are produced for each unit of labour input and is calculated by dividing output by labour input.

Labour inputs

The preferred measure of labour input is hours worked ("productivity hours"), but sometimes workers or jobs ("productivity jobs") are also used.

Output

Output is measured by gross value added (GVA) in chained volume measures (CVM), which is an estimate of the volume of goods and services produced for final use by an industry, and in aggregate for the UK, after adjusting for price changes. It is calculated as turnover (sales) minus purchases (intermediate consumption).

Allocation effect

An allocation effect represents changes in the mix of activities in the economy between firms or industries that have various levels of productivity. Resources moving from low to high productivity industries creates a positive allocation effect while movement from high to low productivity industries creates a negative allocation effect.

9 . Data sources and quality

This release uses the first available information on output and labour input for Quarter 1 (Jan to Mar) 2022. These data may be revised when we release the more detailed Productivity Overview in July 2022.

This release uses gross value added (GVA) from the [gross domestic product (GDP) first quarterly estimate](#) to determine output. Labour market data are from the [Labour market overview, UK: May 2022 statistical bulletin](#). Estimates of the productivity time series for previous time periods have been revised and therefore may not be consistent with the [Labour productivity](#) National Statistics.

New estimates of GVA are more volatile on a quarterly basis than previously, especially in production industries. This reflects the use of new data and methods but also [the challenges in reconciling quarterly and annual data](#). As productivity is a structural feature of the economy, we continue to advise users to focus on long-term trends of productivity.

More details on the flash by industry methodology is described in the "Guidance" tab of [the dataset](#).

10 . Related links

[Productivity overview, UK: October to December 2021](#)
Bulletin | Released 7 April 2022
The main findings from official statistics and analysis of UK productivity, presenting a summary of recent developments.

[GDP first quarterly estimate, UK: January to March 2022](#)
Bulletin | Released 12 May 2022
First quarterly estimate of gross domestic product (GDP). Contains current and constant price data on the value of goods and services to indicate the economic performance of the UK.

[Labour market overview, UK: May 2022](#)
Bulletin | Released 17 May 2022
Estimates of employment, unemployment, economic inactivity, and other employment-related statistics for the UK.