

Article

UK productivity flash estimate: April to June 2023

Labour productivity for Quarter 2 (April to June) 2023 based on data from the gross domestic product (GDP) first quarterly estimate and labour market statistics.

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Release date:
15 August 2023

Next release:
14 November 2023

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1 . Main points

- In Quarter 2 (Apr to Jun) 2023, preliminary estimates of UK output per hour worked were 0.1% above the same quarter a year ago, and 1.4% above their pre-coronavirus (COVID-19) pandemic level.
- In Quarter 2 2023, preliminary estimates of UK output per worker were flat (0.0%) compared with the same quarter a year ago.
- Relative to the same quarter a year ago, the administrative services industry made the biggest positive industry contribution to annual productivity growth.
- Relative to the same quarter a year ago, the finance and insurance, energy, and mining and quarrying industries made the biggest negative contributions to annual productivity growth.

These are preliminary estimates based on first quarterly estimates of gross value added, which can be volatile. Estimates may be revised when we release our more detailed [Productivity overview article](#) for the quarter.

2 . Latest statistics

The labour productivity flash estimate uses the latest labour market statistics detailed in our [Labour Market Overview bulletin](#) and the [gross value added \(GVA\) first quarterly estimates](#) to provide the first look at UK productivity for Quarter 2 (Apr to Jun) 2023.

This publication covers two measures of labour productivity: output per hour worked and output per worker. Details of these measures are in Table 1: The latest productivity statistics.

Table 1: The latest labour productivity statistics
UK, Quarter 2 (Apr to Jun) 2022 to Quarter 2 (Apr to Jun) 2023

Period	Output per hour worked growth rates			Output per worker growth rates		
	Quarter vs 2019 pre-pandemic level (%)	Quarter-on-year ago (%)	Quarter-on-quarter (%)	Quarter vs 2019 pre-pandemic level (%)	Quarter-on-year ago (%)	Quarter-on-quarter (%)
Q2 2022	1.3	-0.2	0.0	0.4	2.2	-0.5
Q3 2022	1.6	1.0	0.4	0.5	1.5	0.1
Q4 2022	2.1	0.0	0.4	0.4	-0.2	-0.1
Q1 2023	0.6	-0.6	-1.4	0.0	-0.9	-0.4
Q2 2023	1.4	0.1	0.7	0.4	0.0	0.4

Source: UK productivity flash estimate from the Office for National Statistics

Notes

1. Comparisons with pre-coronavirus (COVID-19) pandemic levels use average 2019 levels as the base period.

3 . Output per hour worked

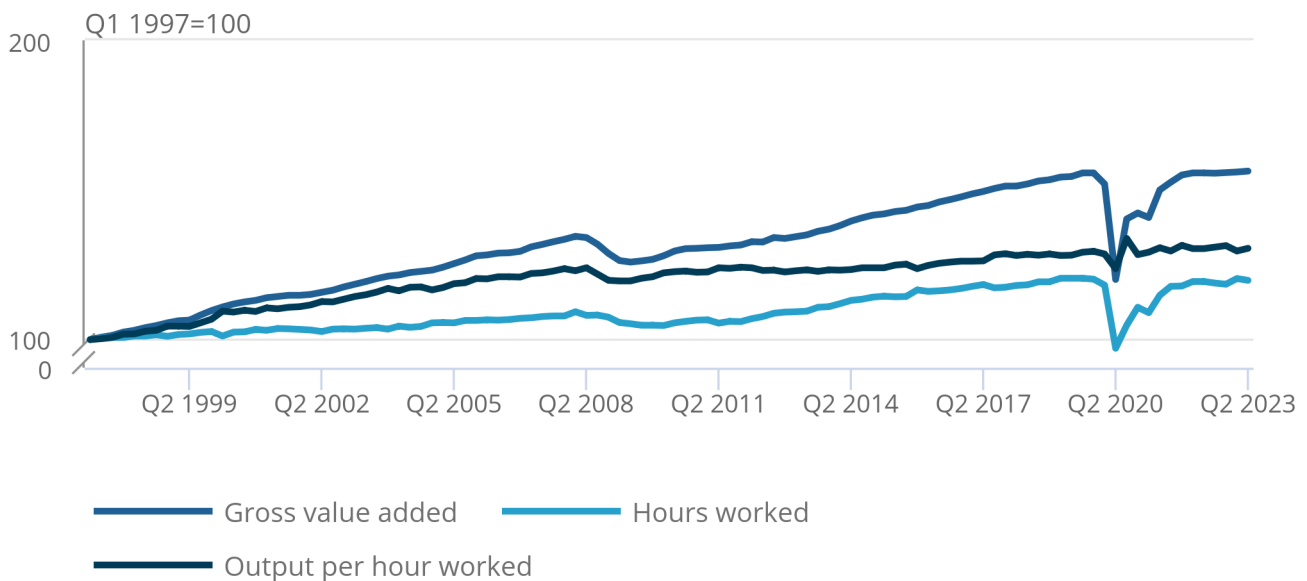
Preliminary estimates of UK output per hour worked for Quarter 2 (Apr to Jun) 2023 increased by 0.1% relative to a year earlier, Quarter 2 2022. Gross value added (GVA) grew by 0.4%, while the number of hours worked grew by 0.3%.

Figure 1: Output per hour worked increased by 0.1% compared with the same quarter a year ago

Output per hour worked, gross value added (GVA), hours worked, UK, index Q1 1997 = 100, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2023

Figure 1: Output per hour worked increased by 0.1% compared with the same quarter a year ago

Output per hour worked, gross value added (GVA), hours worked, UK, index Q1 1997 = 100, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2023



Source: UK productivity flash estimate from the Office for National Statistics

UK output per hour worked increased by 0.7% in Quarter 2 2023 compared with the previous quarter. This was due to an increase in GVA (0.2%), and a decrease in the number of hours worked (negative 0.5%).

Note: the coronation of King Charles III on 6 May 2023 led to an additional bank holiday on Monday 8 May. This should be considered when interpreting the variation in hours worked in Quarter 2 2023, the comparison with the previous quarter (Quarter 1 2023), the comparison with a quarter a year ago (Quarter 2 2022) and the consequent impact on output per hour worked.

4 . Output per worker

We also report output per worker as a measure of productivity. This is the ratio of total output relative to the number of workers.

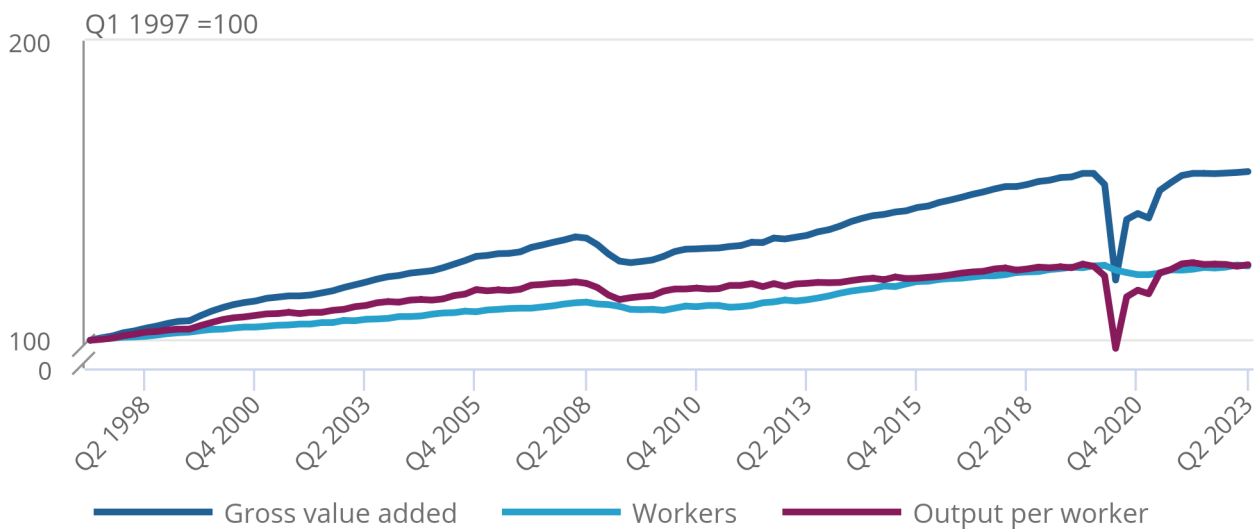
Preliminary estimates of UK output per worker for Quarter 2 (Apr to Jun) 2023 was flat (0.0%) relative to a year earlier, with the growth in the number of workers offsetting growth in GVA (0.4%).

Figure 2: Output per worker was flat compared with the same quarter a year ago

Output per worker, gross value added, employment, UK, index Q1 1997 = 100, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2023

Figure 2: Output per worker was flat compared with the same quarter a year ago

Output per worker, gross value added, employment, UK, index Q1 1997 = 100, Quarter 1 (Jan to Mar) 1997 to Quarter 2 (Apr to June) 2023



Source: UK productivity flash estimate from the Office for National Statistics

UK output per worker increased by 0.4% in Quarter 2 2023 compared with the previous quarter. This was driven by a quarterly increase in the GVA (0.2%), and a decrease in the number of workers (negative 0.2%).

5 . Output per hour worked by industry

Figure 3 shows the contribution to growth in output per hour worked for 17 industries in Quarter 2 (Apr to Jun) 2023 relative to the same quarter a year ago. The administrative services industry made the biggest positive industry contribution to productivity growth. By contrast, the finance and insurance, energy, and mining and quarrying industries made the biggest negative contributions to annual productivity growth. Other services (a residual category, including personal service activities not covered elsewhere in our [Standard Industrial Classification \(SIC\) 2007](#)) and agriculture industries made negligible contributions to productivity growth over the same period.

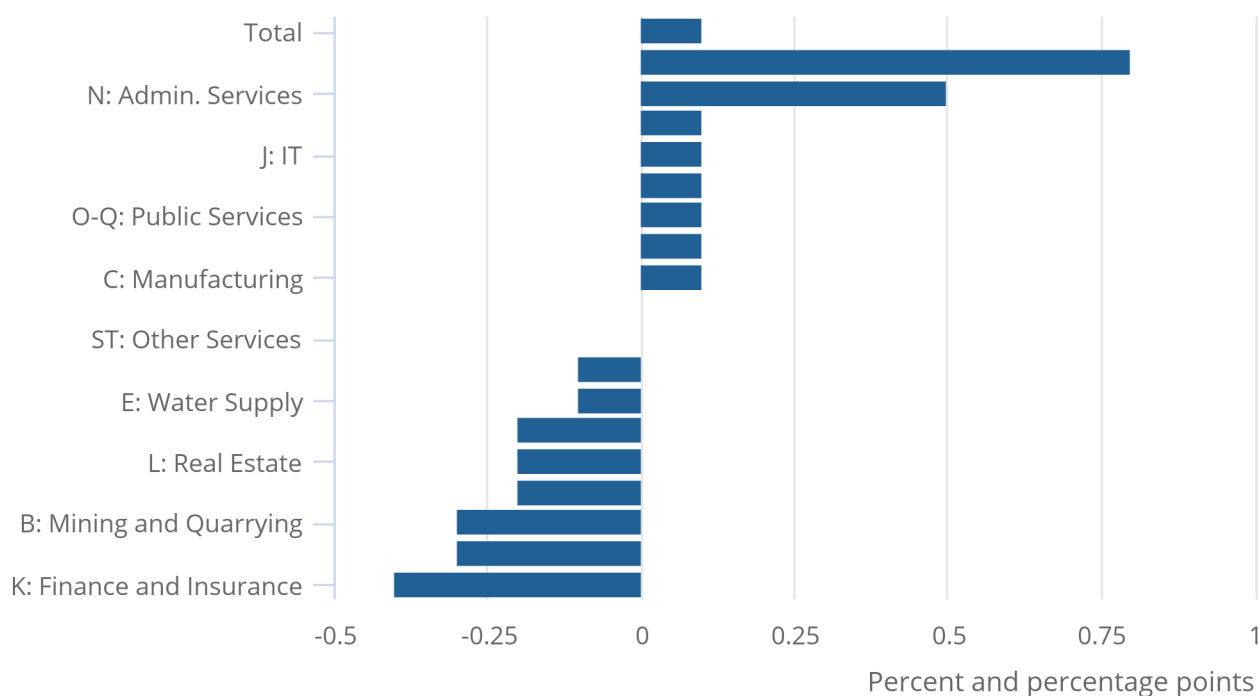
The between-industry reallocation made a positive contribution to productivity growth over the past year, showing that on average, economic activity shifted mostly from industries with lower productivity to industries with higher productivity.

Figure 3: Administrative services made the greatest contribution to growth in UK output per hour worked in the year to Quarter 2 2023

Output per hour worked contributions, percentage points, relative to Quarter 2 (Apr to Jun) 2022

Figure 3: Administrative services made the greatest contribution to growth in UK output per hour worked in the year to Quarter 2 2023

Output per hour worked contributions, percentage points, relative to Quarter 2 (Apr to Jun) 2022



Source: UK productivity flash estimate from the Office for National Statistics

Notes:

1. [Imputed rental](#) is excluded from the real estate industry.
2. The industry contributions may not add up to the output per hour total. This is because of the exclusion of [imputed rental](#) from real estate and because of the National Accounts balancing value.
3. The between-industry reallocation measure accounts for changes in the distribution of activity between industries within the economy.
4. O-Q public services industry includes: public administration and defence, compulsory social security, education, human health, and social work activities that may contain some element of the market sector.

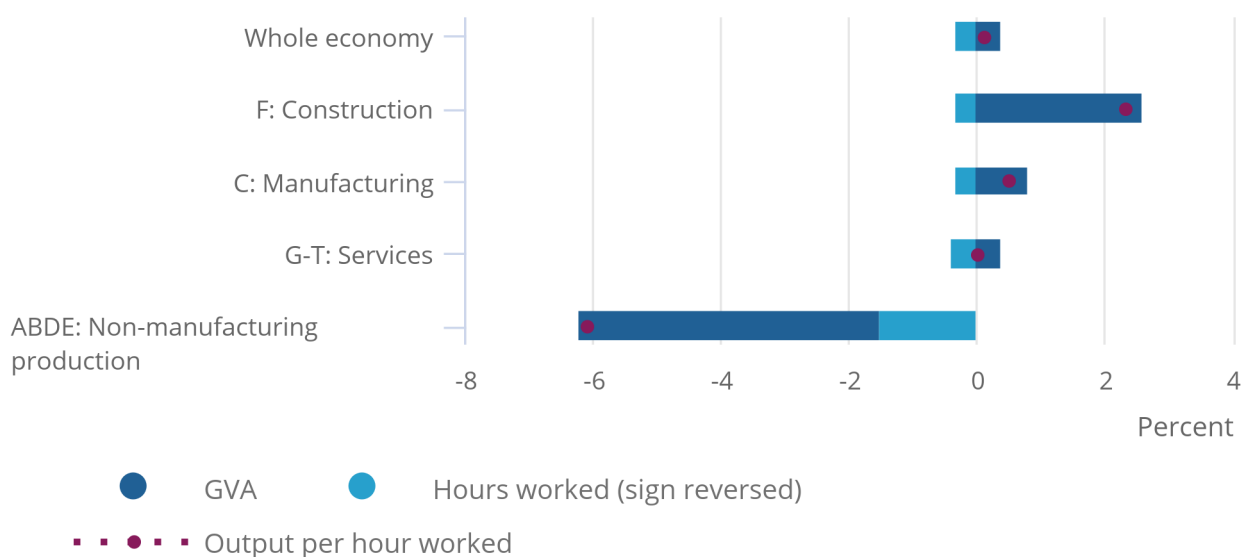
Figure 4 shows the decomposition of the annual growth in output per hour worked between GVA and hours worked in Quarter 2 2023 compared with the same quarter a year ago (Quarter 2 2022). In the construction and manufacturing industries the growth in productivity was driven by a larger increase in GVA than the increase in hours worked. In the non-manufacturing production industries the decrease in productivity was driven by a larger decrease in GVA than the increase in hours worked. In the service industry growth was flat as GVA and hours worked grew at the same pace.

Figure 4: Decomposition of labour productivity growth in the year to Quarter 2 (Apr to Jun) 2023

Output per hour worked, hours worked and gross value added, Quarter 2 2023, versus the same quarter a year ago (Quarter 2 2022), percentage change, UK

Figure 4: Decomposition of labour productivity growth in the year to Quarter 2 (Apr to Jun) 2023

Output per hour worked, hours worked and gross value added, Quarter 2 2023, versus the same quarter a year ago (Quarter 2 2022), percentage change, UK



Source: UK productivity flash estimate from the Office for National Statistics

Notes:

- Figure 4 shows the UK whole economy and four broadly defined industries -
 - construction
 - manufacturing
 - non-manufacturing production (including agriculture forestry and fishing, mining and quarrying, electricity, gas, steam and air conditioning supply and water supply; sewerage, waste management and remediation activities.
 - services (including wholesale and retail trade; repair of motor vehicles and motorcycles, transportation and storage, accommodation and food service activities, information and communication, financial and insurance activities, real estate activities, professional, scientific and technical activities, administrative and support service activities, government services, arts, entertainment and recreation and other services

6 . UK productivity flash estimate data

[Flash productivity by section](#)

Dataset | Released 15 August 2023

Flash estimates of labour productivity by section. The latest data from the [gross domestic product \(GDP\) first quarterly estimate](#) and [labour market statistics](#).

7 . Glossary

Gross value added (GVA)

The value generated by any unit engaged in production and the contributions of individual sectors or industries to gross domestic product.

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 workers or jobs ("productivity jobs") are sometimes used.

Output

Output is measured by 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.

8 . Data sources and quality

This release uses the first available information on output and labour input for Quarter 2 (Apr to Jun) 2023. These data may be revised when we release the more detailed [Productivity overview article](#) in October 2023.

This release uses gross value added (GVA) from our [GDP first quarterly estimate bulletin](#) to determine output. Labour market data are from the [Labour market overview 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, especially in production industries. This reflects the use of new data and methods, but also challenges in reconciling quarterly and annual data, as explained in our [Recent challenges of balancing the three approaches of GDP article](#). As productivity is a structural feature of the economy, we continue to advise users to focus on long-term trends of productivity.

The population totals used for the latest Labour Force Survey (LFS) estimates use projected growth rates from [Real Time Information data for UK](#), EU and non-EU populations based on 2021 patterns. The total population used for the LFS therefore does not account for any changes in migration, birth rates, death rates, and so on, since June 2021. As such, any levels estimates may be under- or over-estimating the true values and should be used with caution. Estimates of rates will, however, be robust.

More details on the flash by industry methodology is described in the "Guidance" tab of our [Flash productivity by section dataset](#) and the Labour productivity quality and methodology information (QMI) that will be updated and published in the following weeks.

9 . Related links

[Productivity overview, UK: January to March 2023](#)

Bulletin | Released 7 July 2023

The main findings from official statistics and analysis of UK productivity, presenting a summary of recent developments.

[GDP first quarterly estimate, UK: April to June](#)

Bulletin | Released 11 August 2023

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: August 2023](#)

Bulletin | Released 15 August 2023

Estimates of employment, unemployment, economic inactivity, and other employment-related statistics for the UK.

10 . Cite this article

Office for National Statistics (ONS), released 15 August 2023, ONS website, article, [UK productivity flash estimate: April to June 2023](#)