



ECONOMY AND LABOUR MARKET

Labour Productivity Statistics

2019 Quarter 4

6 May 2020

This publication includes estimates of labour productivity for Scotland's onshore economy up to the fourth quarter of 2019 (October-December).

Future releases of quarterly Labour Productivity Statistics have been suspended until further notice to allow us to focus on other priorities in response to the COVID-19 pandemic.

Headline results



In 2019 Quarter 4, labour productivity in Scotland, measured by output per hour worked, has increased by 0.8% compared to the same quarter last year.



Compared to the previous quarter, labour productivity is estimated to have grown by 0.2% in 2019 Quarter 4.



In 2019, annual labour productivity increased by 0.5% compared to 2018, following an increase of 3.2% in 2018 and a decrease of 0.6% in 2017.

What's included in this release?

Labour productivity measures the amount of economic output that is produced, on average, by each unit of labour input, and is an important indicator of economic performance.

This publication contains a brief summary of the key results from the latest productivity statistics, focussing in on the headline measures of change in output per hour worked.

To aid comparability with other economic measures for Scotland and the UK as a whole, this publication reports growth rates for the latest quarter and compared to the same quarter a year ago. The key results are presented in real terms, i.e. where the effect of price changes has been removed to allow for meaningful comparisons over time. Estimates are for Scotland's onshore economy.

Data

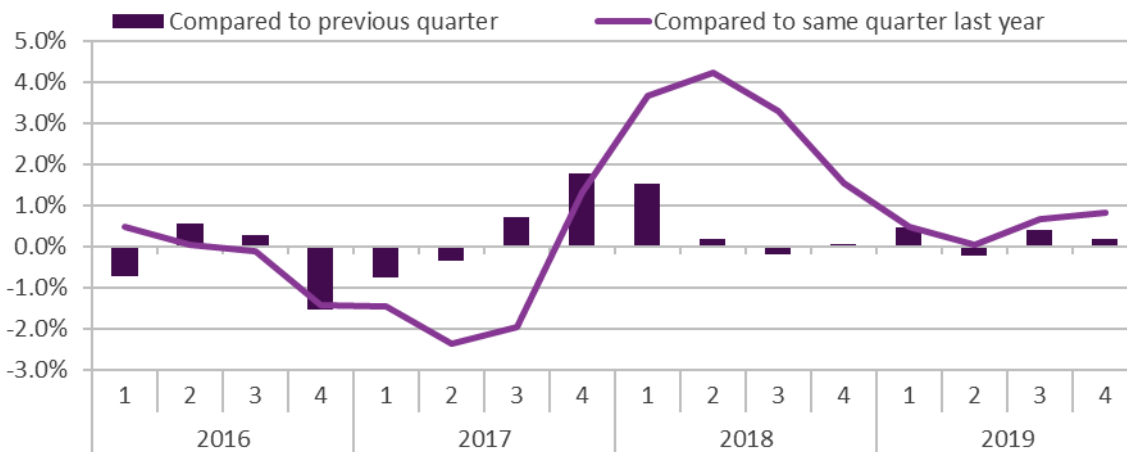
Full results including estimates of output per job, current price productivity measures (not adjusted for price changes) and experimental estimates of labour productivity by industry are available in online tables.

In 2019 Q4, productivity grew by 0.8% compared to the same quarter in 2018

Compared to the fourth quarter of 2018, labour productivity has increased by 0.8% in real terms. The growth rate over the year is based on how much output per hour worked has changed in total across the latest four quarters.

Compared to the previous quarter, labour productivity is estimated to have grown by 0.2% in 2019 Quarter 4, following an increase of 0.4% in the previous quarter.

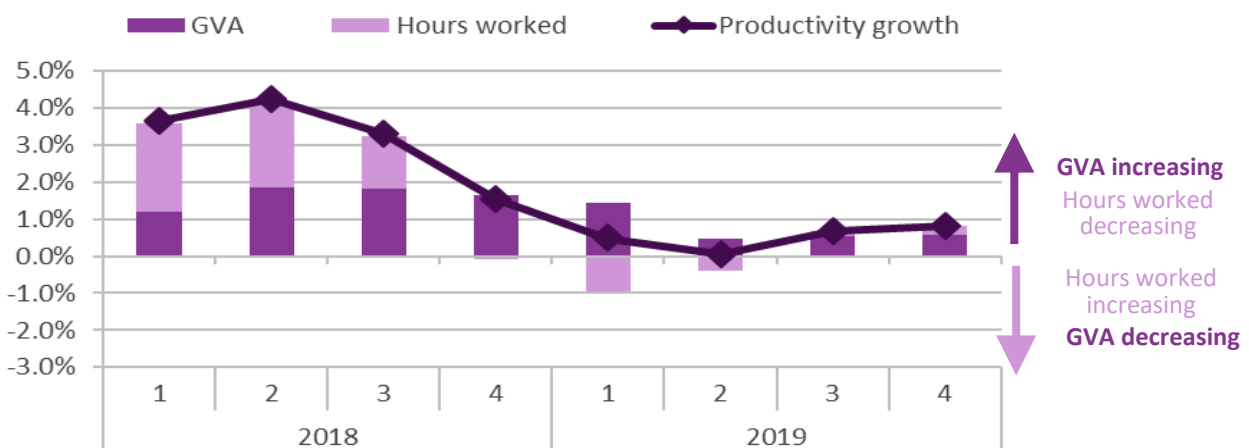
Output per hour worked, percentage change



Changes in productivity can be simply broken down into growth in output (GVA) *minus* growth in total hours worked. Therefore, when output grows faster than hours, productivity increases.

Compared to the same quarter last year, output per hour increased by 0.8% due to a combination of GVA growth (0.6%) and a fall in the total number of hours worked (-0.2%).

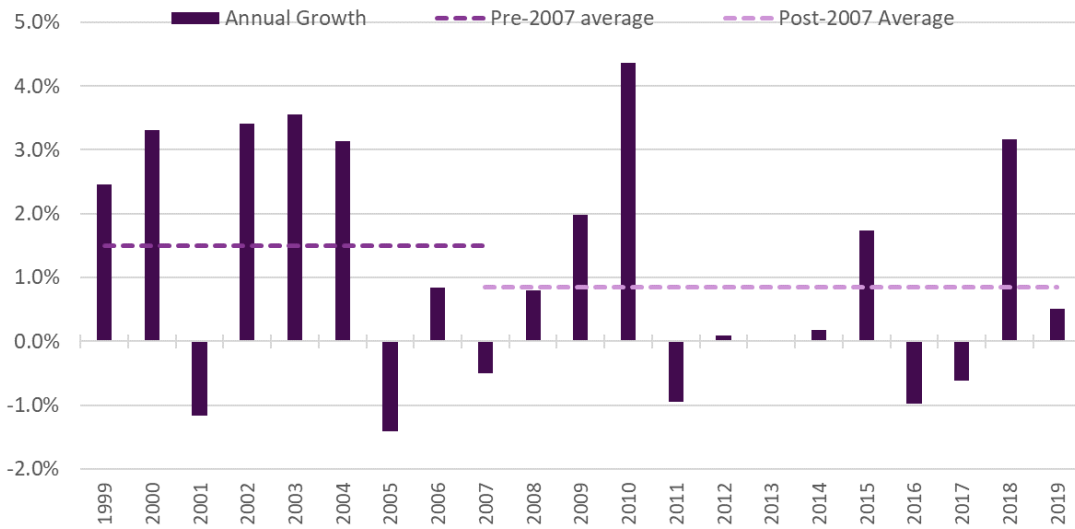
Growth in productivity, output and hours worked, compared to same quarter last year



Annual productivity grew 0.5% in 2019, after increasing by 3.2% in 2018

In 2019, output per hour worked in Scotland increased by 0.5% in real terms compared to 2018. The annual labour productivity growth rate is based on results for the whole year compared to the previous year. This follows a decrease of 0.6% in 2017 and an increase of 3.2% in 2018. Annual productivity growth can vary widely from year to year, but looking over the longer term it has grown by an average of 0.8% per year since the 2008-09 recession. Prior to the recession, from 1998 to 2007, output per hour worked increased by 1.5% per year on average.

Output per hour, percentage change compared to the previous year



Since 2007, average productivity growth has been similar to average growth in output, but has followed a very different path. Whilst GDP quickly recovered to above its pre-recession peak and is now 9.6% higher, estimated total productivity hours worked in the economy fell more steeply during the recession and remain below pre-recession levels.

Levels of productivity, output, hours , 1998-2019

This line chart tracks three metrics from 1998 to 2019: Output (GVA) as a dotted blue line, Hours worked as a dashed red line, and Output per hour as a solid black line. The y-axis represents an index from 80 to 115. All three metrics show a general upward trend, with a sharp dip during the 2008-2009 recession. Output per hour shows the most significant recovery, ending at its highest point in 2019.

Year	Output (GVA)	Hours worked	Output per hour
1998	82	94	87
1999	84	93	89
2000	86	96	92
2001	88	96	91
2002	90	95	94
2003	92	95	97
2004	94	94	101
2005	96	97	99
2006	98	99	100
2007	99	100	100
2008	99	100	100
2009	98	95	103
2010	99	93	107
2011	100	94	106
2012	100	94	106
2013	102	96	106
2014	104	98	108
2015	105	97	108
2016	106	99	107
2017	107	100	106
2018	109	99	110
2019	110	99	111

About Labour Productivity Statistics

Labour productivity measures the amount of economic output that is produced, on average, by each unit of labour input, and is an important indicator of economic performance.

Labour input is measured in terms of the number of jobs in the economy (giving a measure of output per job), and also the total number of hours worked (giving a measure of output per hour worked). Output per hour worked is usually viewed as the most comprehensive indicator of labour productivity and is thus taken as the headline measure.

Labour productivity statistics presented in **real terms** (where the effects of price changes have been removed) are used to analyse changes in the level of activity over time within a particular country or industry, or to compare growth rates between countries or industries on a consistent basis. Results are indexed to a reference year – set at 2007=100 in this release in order to focus on movements since the onset of the recession in 2008.

Results presented in **current prices** (unadjusted for the effects of price changes) are used to make comparisons of the relative level (not growth rate) between countries or industries at a particular point in time.

Quarterly movements of labour productivity can be volatile, making short term trends difficult to discern. To aid interpretation, quarterly estimates of productivity growth are calculated using a trend-based labour input series. The quarterly estimates presented indicate the underlying rate of change after removing both seasonal and irregular (volatile) movements from the data.

Further information on the production and interpretation of these statistics is available [here](#).

What's changed in this release?

Labour productivity estimates are derived using simple calculations on other source statistics and any revisions to these sources of data have a consequent impact on the productivity estimates.

This publication includes revisions to the trend estimates of jobs and hours data due to updated parameters in the seasonal adjustment model. Revisions to GDP statistics are consistent with the latest GDP Quarterly National Accounts. The impact of these revisions can be seen in Tables R1 and R2.

The latest two quarters of the trend-based measure of productivity are provisional and are subsequently revised as new data become available. The cumulative effect of these revisions is presented in the online revision tables.

Next publication

The way that we work is changing in response to COVID-19, and the Scottish Government is developing new monthly economic statistics which will help to track the impact on the economy. To allow resources to be focussed on new key statistics, the quarterly Labour Productivity publication will be suspended until further notice.

Please contact us at economic.statistics@gov.scot or follow us on Twitter [@scotgovocea](https://twitter.com/scotgovocea) or [@scotstat](https://twitter.com/scotstat) for more information.

An Official Statistics publication for Scotland

These statistics have not been assessed by the Office for Statistics Regulation and have therefore not yet been designated as National Statistics.

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Correspondence and enquiries

For enquiries about this publication, please contact:

Statistician:

John Dowens,
National Accounts Unit,
Office of the Chief Economic Adviser
e-mail: john.dowens@gov.scot
or economic.statistics@gov.scot

For general enquiries about Scottish Government statistics please contact:
Office of the Chief Statistician, Telephone: 0131 244 0442,
e-mail: statistics.enquiries@gov.scot

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