Office for National Statistics

Statistical bulletin

Labour costs and labour income, UK: 2021

Annual commentary with quarterly dataset of the labour share of income, unit labour costs (ULC) and average labour compensation per hour (ALCH), with industry breakdowns.

Contact:
Stuart Mackenzie
productivity@ons.gov.uk
+44 1633 455086

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To be announced

Correction

1 December 2021 09:00

We have identified and corrected an error with the way employment costs were calculated for the aggregation of services industries. This has impacted the calculations of unit labour costs used in this bulletin, affecting Figure 6, which has been updated accordingly. When deducting subsidies from employment costs, the amounts to be deducted were miscalculated, due to the wrong industry aggregation being used.

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1 . Main points

- This is the first release of a unified suite of statistics, which tell a rounded story about labour income and costs, including unit labour costs (ULCs), average labour compensation per hour worked (ALCH), and the labour share of income, with industry breakdowns.
- The UK's first official estimate of the labour share of income was 59.9% in Quarter 2 (Apr to June) 2021, compared with 59.0% on average between 2010 and 2019.
- In Quarter 2 2021, whole economy ULCs were 7.5% above the 2019 average level, despite a 2.5% fall quarter-on-quarter, reflecting the impact of COVID-19 and policy responses such as furlough.
- Wholesale and retail, as well as construction, were the only industries to have ULCs below pre-pandemic levels in Quarter 2 2021; construction ULCs were down 0.5%, while wholesale and retail ULCs were down 3% compared with 2019, possibly driven by an increase in online purchasing.
- Industries most affected by coronavirus restrictions, experiencing higher levels of furlough, have seen the largest increases in ULCs.
- In the same period, whole economy ALCH was 9.4% above pre-pandemic levels, with a 2.4% fall quarter-on-quarter.

2 . Labour share of income

Latest statistics

This article introduces the UK's first official estimate of the labour share of income (labour share), the share of income received by employees in return for their part in producing output. This time series goes back to Quarter 1 (Jan to Mar) 1955. Increases in productivity will pass through to higher labour income, and hence higher living standards, only if the labour share of income is constant or growing. If not, productivity gains could be captured by businesses as lower operating costs (lower unit labour costs), increasing business profits, and reducing the labour share of income. Productivity gains can also be passed onto consumers in the form of lower prices. To the extent that productivity is important to understand changes in living standards, the labour share of income is an important measure to verify this relationship.

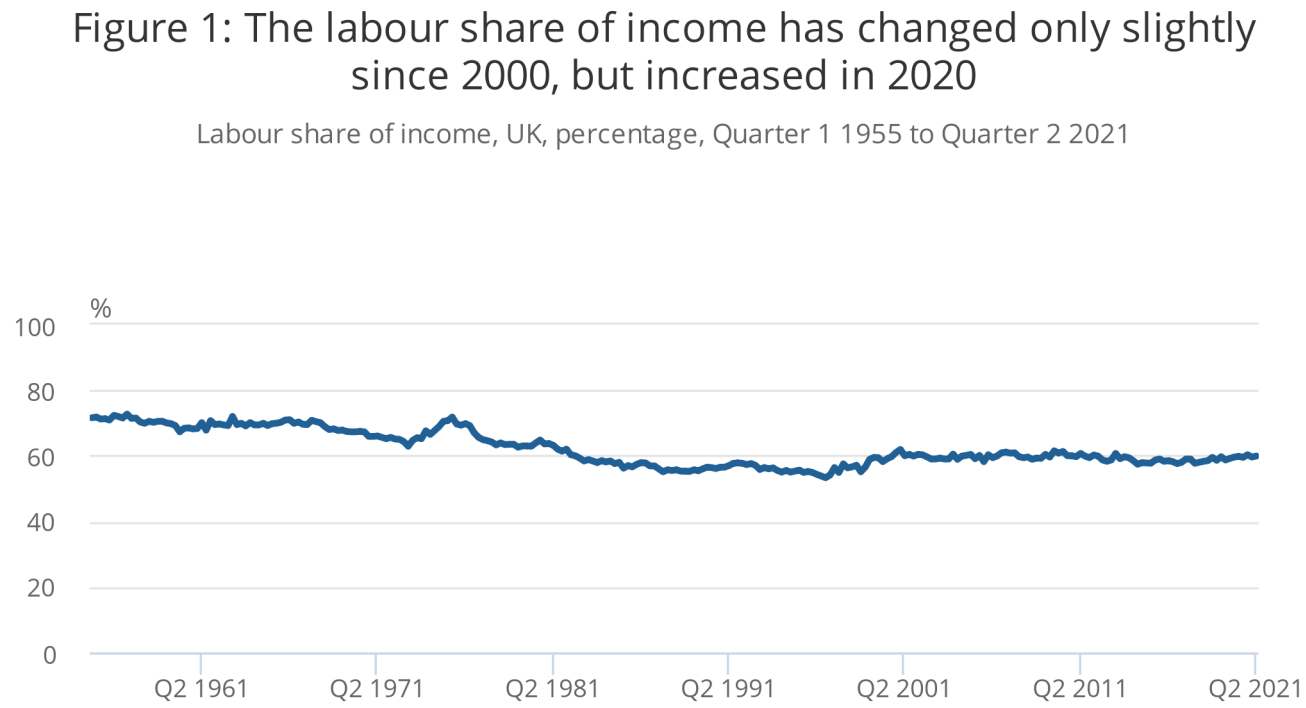
In Quarter 2 (Apr to June) 2021, the labour share was 59.9%, 0.8 percentage points above the 2019 average.

Long-term trends

The labour share fell between 1955 and 2019, down from an average of 69.9% over 1955 to 1969, to an average of 59.9% over 1970 to 2019. Since the turn of the century, the labour share has been relatively flat. Little change in the labour share means increases in both average labour compensation per hour worked (ALCH) and unit labour cost (ULC) during the same period (see labour costs) have not caused the share of production income received by employees to increase after accounting for price changes. Increases in ALCH while the labour share has not increased, therefore, reflect increases in the price level in the economy.

Figure 1: The labour share of income has changed only slightly since 2000, but increased in 2020

Labour share of income, UK, percentage, Quarter 1 1955 to Quarter 2 2021



Source: Office for National Statistics – Unit labour costs, UK

3 . Labour costs

Latest statistics

Unit labour costs (ULCs) rose during the coronavirus pandemic, mainly because of the effects of the furlough scheme. Productivity (output per hour worked) increased through 2020, although this was on account of a positive compositional effect, as previously reported in our Productivity overview. This growth in productivity moderates the inflationary pressure of the increases in average labour compensation per hour worked (ALCH). However, ULCs were still 7.5% higher in Quarter 2 (April to June) 2021, compared with 2019. ULCs began falling in Quarter 2 2021, when the economy was re-opening.

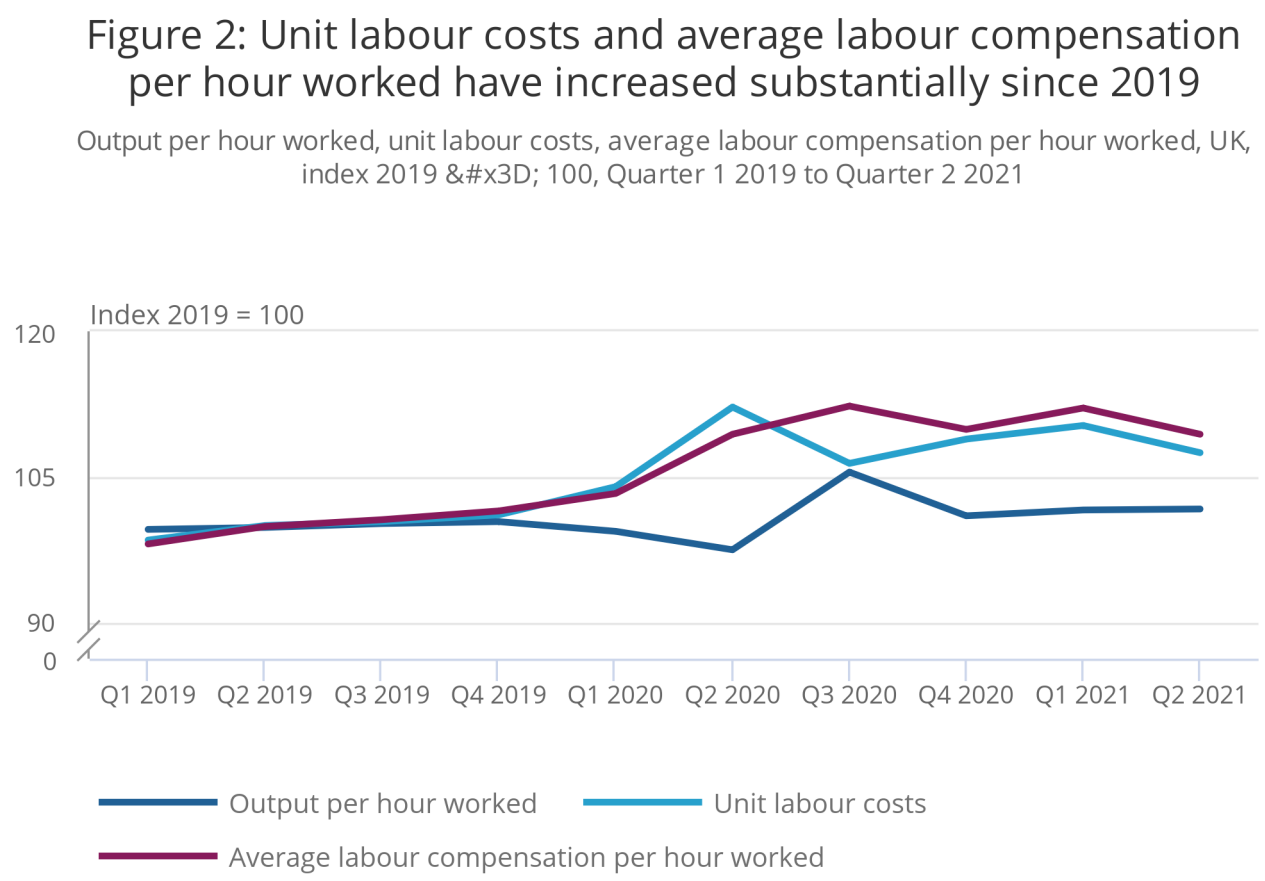
Government interventions in response to the coronavirus pandemic, like the Coronavirus Job Retention Scheme (furlough), have unusual effects on these statistics. Around two million workers remained on furlough in Quarter 2 2021. These workers were paid at least 80% of their normal salary, without working any hours. This contributes to ALCH being 9.4% above the pre-pandemic levels.

Furloughed workers' employers paid non-wage labour costs, such as pension and National Insurance contributions, and some voluntarily "topped-up" their pay. This led to employment costs without corresponding output. This, and lower than usual demand reducing output, resulted in ULCs being 7.5% above pre-pandemic levels.

The quarter-on-quarter fall in both ULCs (2.5%) and ALCH (2.4%) reflects the re-opening of the economy and furloughed workers' return to the workplace.

Figure 2: Unit labour costs and average labour compensation per hour worked have increased substantially since 2019

Output per hour worked, unit labour costs, average labour compensation per hour worked, UK, index 2019 = 100, Quarter 1 2019 to Quarter 2 2021



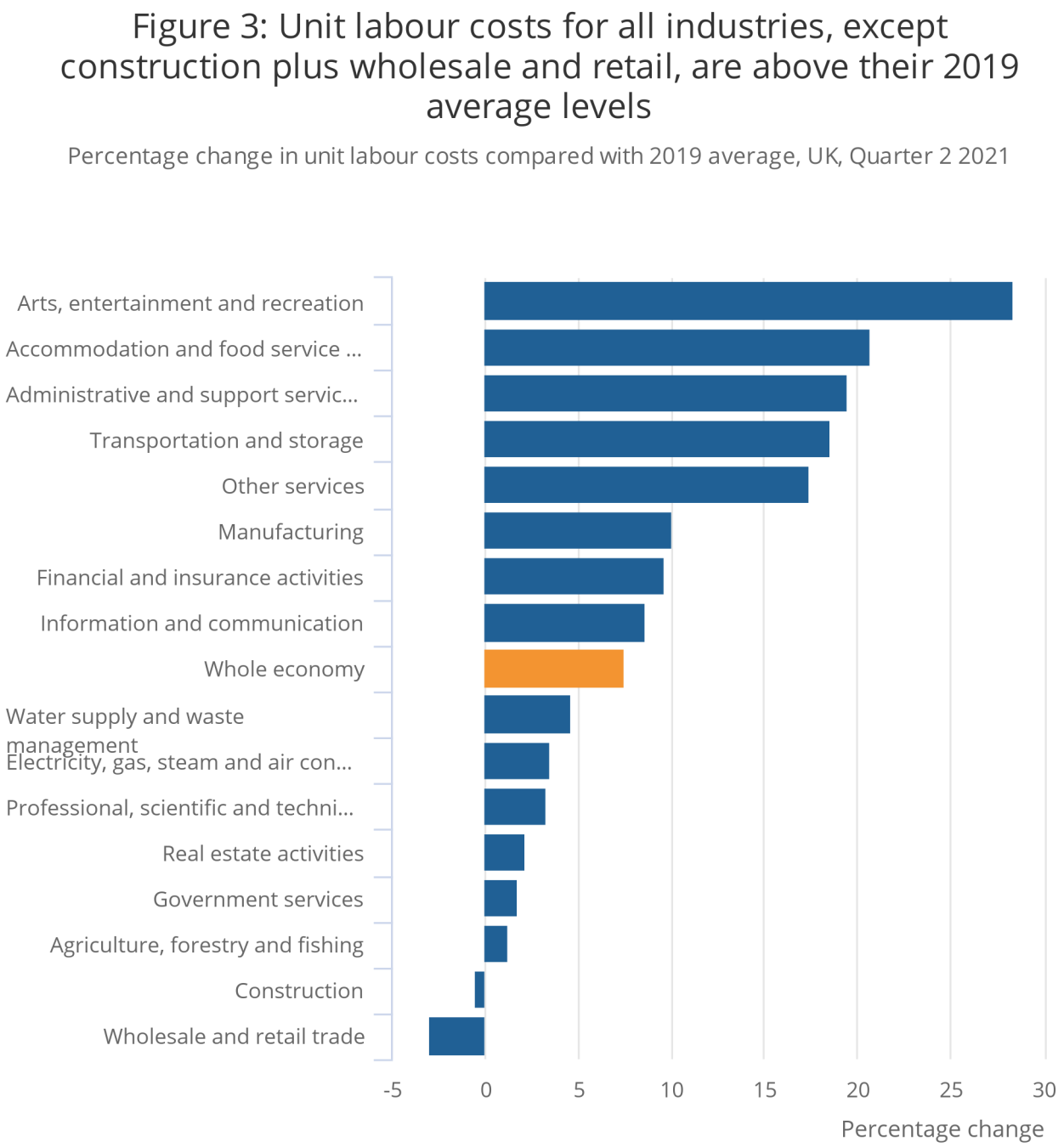
Source: Office for National Statistics – Unit labour costs, UK; Productivity Overview, UK

Industry breakdown

This article recommences our estimates of unit labour costs (ULCs) by industry, following their suspension. ULCs for all industries, except construction and wholesale and retail, were above their respective 2019 average level. Industries most affected by coronavirus pandemic-related restrictions, with output most reduced and the highest furlough levels (including voluntary employer top-ups), saw the largest ULCs increases over this period. You can view our Coronavirus and the economic impacts on the UK: 18 June 2020 bulletin to find out more about voluntary employer top-ups.

Figure 3: Unit labour costs for all industries, except construction plus wholesale and retail, are above their 2019 average levels

Percentage change in unit labour costs compared with 2019 average, UK, Quarter 2 2021



Source: Office for National Statistics – Unit labour costs, UK

Notes:

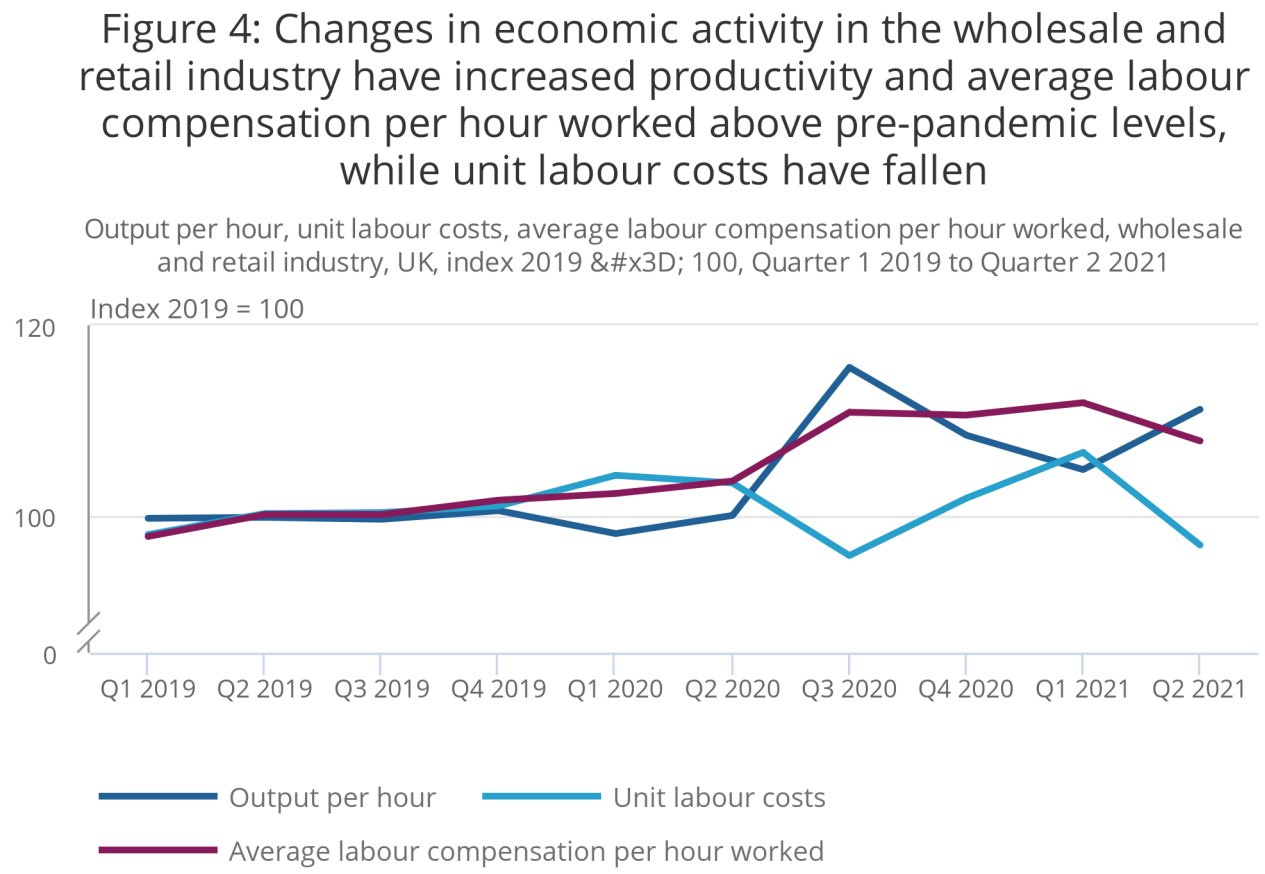
1. Mining and quarrying estimates are not shown because of large changes in ULCs, related to large drops in GVA as a result of the temporary closing of some oil field production sites – see GDP monthly estimate, UK for more information.

In Quarter 2 2021, wholesale and retail, as well as construction, were the only industries with ULCs below the levels that were seen before the coronavirus pandemic (construction had ULCs 0.5% below these levels). This is because of higher output and lower hours worked during the coronavirus pandemic. In Quarter 2 2021, online sales accounted for 27% of retail sales, compared with 19% in 2019; this suggests that the rapid uptake of online shopping instead of store-based retail may have contributed to the increase in productivity. Throughout the coronavirus pandemic, wholesale and retail ALCH has remained above levels that were seen before the coronavirus pandemic, 7.9% above in Quarter 2 2021. This increase partly reflects voluntary employer top-ups on furloughed workers' pay, which are labour income without corresponding hours worked. It may also reflect compositional effects within the industry, with the lowest-paid workers most likely to be furloughed.

ULCs have been more volatile with large falls coinciding with unwinding coronavirus restrictions and falling furlough levels. In these periods, demand and output increased, while employment cost associated with zero output (employers' payments to furloughed workers) fell.

Figure 4: Changes in economic activity in the wholesale and retail industry have increased productivity and average labour compensation per hour worked above pre-pandemic levels, while unit labour costs have fallen

Output per hour, unit labour costs, average labour compensation per hour worked, wholesale and retail industry, UK, index 2019 = 100, Quarter 1 2019 to Quarter 2 2021



Source: Office for National Statistics – Unit labour costs, UK; Productivity Overview, UK

Long-term trends

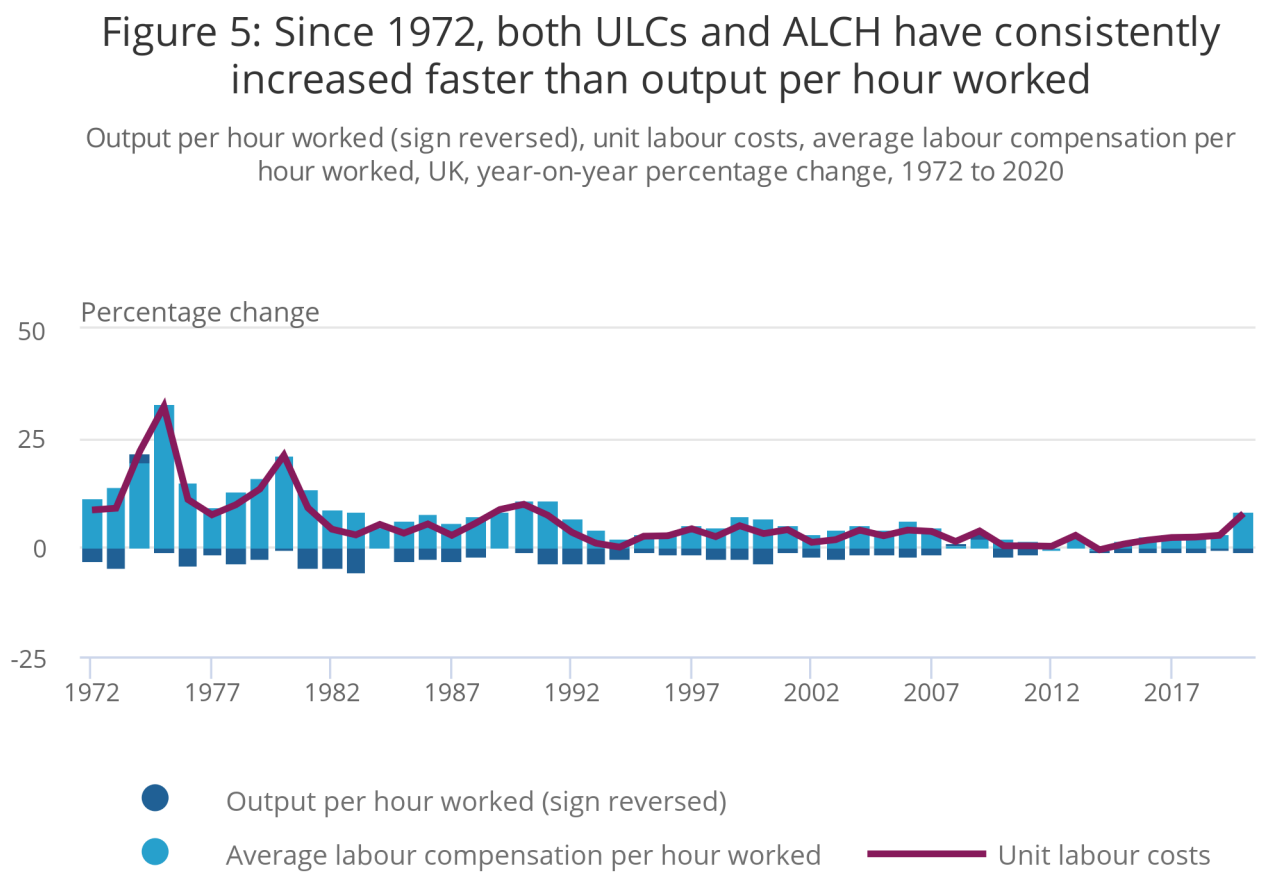
As with all productivity-related estimates, a long-term view is recommended. Labour productivity is an enabling factor of standards of living and is positively related to average labour compensation per hour worked (ALCH). It is negatively related to unit labour costs (ULCs); see measuring the data. Examining these three estimates together, we can understand the drivers and consequences of labour productivity in more detail.

Between 1997 and 2007, labour productivity grew at an average annual rate of 2.0%, but between 2009 and 2019 it grew by only 0.7% annually on average; this is the productivity puzzle (see What is the productivity puzzle?). Over the period 2009 to 2019, ALCH grew by 1.9% annually on average. Average labour productivity growth of 0.7% over this period counteracted the ALCH increase, so ULCs rose by just 1.3% annually on average. This is similar to the average annual inflation rate (as measured by the consumer prices index, CPI) of 2.0%.

Since 1971, productivity has more than doubled, but the compounding effects of the higher growth rates of ULCs and ALCHs have led to dramatic differences with the increases in ALCH and ULCs.

Figure 5: Since 1972, both ULCs and ALCH have consistently increased faster than output per hour worked

Output per hour worked (sign reversed), unit labour costs, average labour compensation per hour worked, UK, year-on-year percentage change, 1972 to 2020

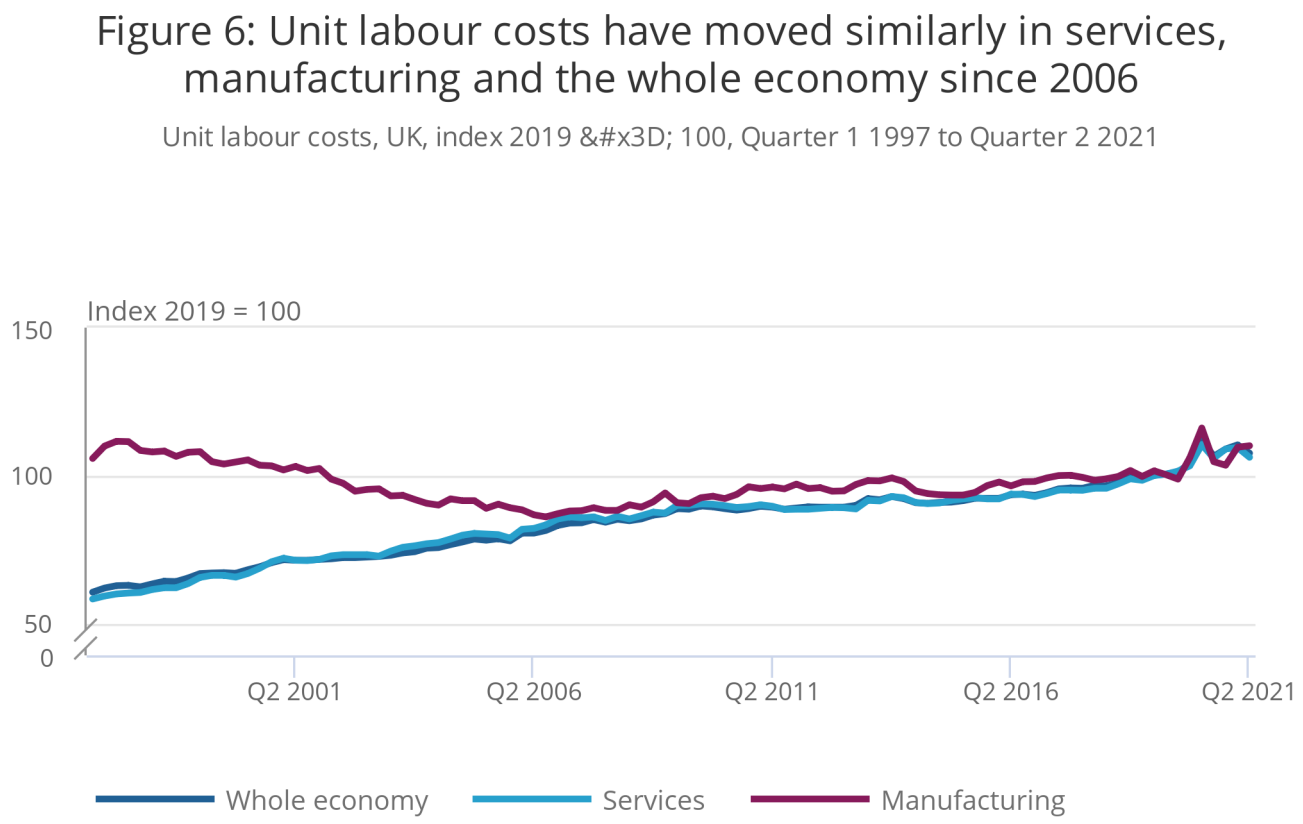


Source: Office for National Statistics – Unit labour costs, UK; Productivity Overview, UK

The changes over time for whole economy unit labour costs (ULCs) are primarily driven by service industries, however, manufacturing changed differently. Falling manufacturing ULCs between 1997 and 2006 reflect the rapidly increasing productivity over this period.

Figure 6: Unit labour costs have moved similarly in services, manufacturing and the whole economy since 2006

Unit labour costs, UK, index 2019 = 100, Quarter 1 1997 to Quarter 2 2021

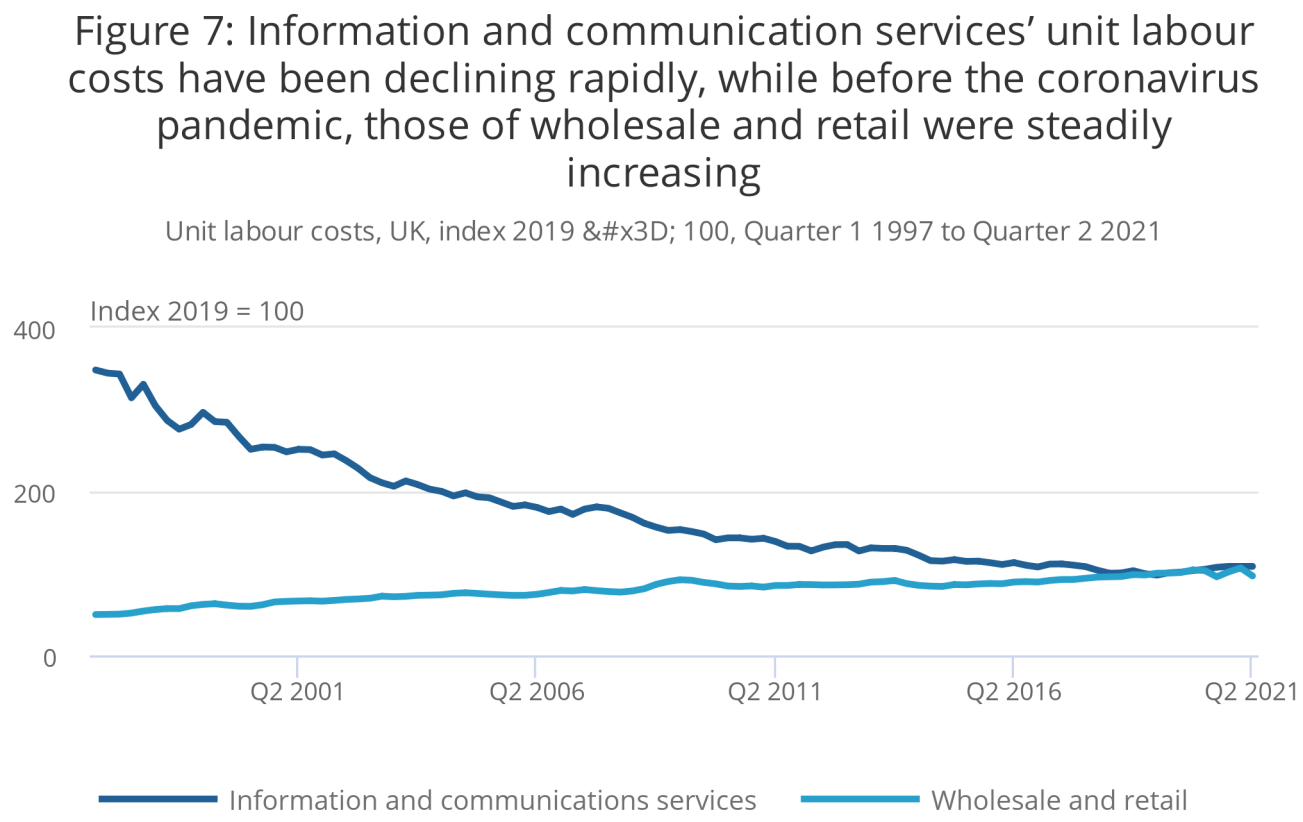


Source: Office for National Statistics – Unit labour costs, UK

One service industry with a different pattern from the whole economy, and from other service industries, is information and communication services. Manufacturing, and information and communication services, both show increasing output per hour, declining unit labour costs and increasing average labour compensation per hour (ALCH). In manufacturing, ALCH rises more than unit labour costs; in information and communication services, the reverse is true. Most industries follow the trends in the whole economy (Figure 6), suggesting that the few industries following a different pattern have relatively minor effects.

Figure 7: Information and communication services' unit labour costs have been declining rapidly, while before the coronavirus pandemic, those of wholesale and retail were steadily increasing

Unit labour costs, UK, index 2019 = 100, Quarter 1 1997 to Quarter 2 2021



Source: Office for National Statistics – Unit labour costs, UK

4 . Labour costs and labour income data

[Labour costs and labour income, UK]
Dataset | Released 10 November 2021
This dataset is published as part of the Office for National Statistics' "Labour costs and labour income costs, UK" article. These data include unit labour costs (ULCs), unit wage costs (UWCs), average labour compensation per hour worked (ALCH) and labour share of income, with industry breakdowns.

5 . Glossary

Average labour compensation per hour (ALCH)

Average labour compensation per hour (ALCH) measures the average cost of purchasing an hour of labour. It covers all costs of labour to employers, including wages and salaries, overtime payments, bonuses and arrears, pension contributions, employers' national insurance contributions, and other costs associated with employing labour. It does not cover subsidised labour compensation.

Compensation of Employees

Total remuneration payable to employees in cash or in kind. Includes the value of social contributions payable by the employer. See the Blue Book glossary.

Employment subsidies

Subsidies paid to businesses by the government directly based on how many employees they employ or how much they pay employees. The furlough schemes implemented during the coronavirus (COVID-19) pandemic are considered employment subsidies.

Gross operating surplus

The balance on the generation of income account, before deduction of consumption of fixed capital; conceptually, the surplus arising from the production of goods and services before taking into account flows of property income. In rare cases this variable may be negative. See the Blue Book glossary (entries for "gross" and "operating surplus").

Labour inputs

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

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 share of income

Labour share measures the share of production income received in exchange for labour.

Mixed income

The operating profit of unincorporated businesses owned by households. Household members often provide unpaid labour inputs to the business. The profit is therefore a mixture of labour remuneration and return to the owner as entrepreneur. In rare cases this variable may be negative. See the Blue Book glossary.

Pre-pandemic

The term pre-pandemic refers to a 2019 average.

Unit labour costs (ULCs) - nominal

Unit labour costs (ULCs) measure the nominal cost of labour input per unit of real (inflation-adjusted) economic output.

Unit wage costs (UWCs) - nominal

Unit wage costs (UWCs) measure the nominal cost of labour input per unit of real (inflation-adjusted) economic output, taking only wages into account, and not non-wage employer labour costs (for example, employers' pension contributions).

Output

Output refers to gross value added (GVA), which is an estimate of the volume of goods and services produced by an industry, and in aggregate for the UK.

Real wages

Real wages refer to average weekly earnings adjusted for inflation. It measures earnings adjusted for the purchasing power of those earnings.

Total employment costs

Total employment costs represent the total costs of purchasing labour in the economy, not including any such costs funded by employment subsidies (see employment subsidies).

6 . Measuring the data

This new suite of estimates will have quarterly dataset updates, approximately four weeks after publication of the quarterly national accounts. It will also have an annual commentary, which will be published following each year's Blue Book release.

Previous iterations of these statistics and their associated data sets can be found in our Productivity overview, (Unit labour costs dataset), and Index of Labour Costs per Hour (ILCH dataset)

Changes to methods in this release

While average labour compensation per hour (ALCH) is conceptually similar to Index of Labour Costs per Hour Worked (ILCH) its numerator is total employment costs, not survey and administrative data. Measures of hours worked are also different: ALCH uses hours worked for all workers, like labour productivity estimates, whereas ILCH uses survey-based estimates for employees only. ILCH has been discontinued.

The unit labour costs (ULCs) and labour share estimates by industry section have been updated from the Sectional Unit Labour Costs publication suspended in 2019 using improved methods.

Labour share of income by industry is now calculated using data on compensation of employees in all institutional sectors in each industry, rather than for just the market sector. This better reflects the mix of activity in each industry.

The ULCs for the whole economy, and for the Index of Production and Index of Services aggregated industries, have been updated from the series published on 7 October 2021 in that total employment costs are now calculated by summation from the values from the relevant industry sections for each aggregated industry (all sections for whole economy, B-E for IoP, G-STU for IoS) rather than by applying the total employment costs formula at the aggregated level.

Methodology in this release

Nominal ULCs are calculated as total employment costs divided by output.

ALCH is calculated as total employment costs divided by total hours worked.

Total employment costs are calculated as compensation of employees, plus part of mixed income, minus employment subsidies. Only part of mixed income is added because only unpaid labour inputs by unincorporated business owners or their household members (see the Glossary entry for mixed income) are part of employment costs; returns paid for owning the business are excluded. For each industry, the share of mixed income considered to be part of total employment costs is set at the labour share (see below) in that industry. Compensation of employees, mixed income and gross operating surplus are part of the Supply Use framework and the data used for this release are consistent with Blue Book 2021.

Labour share is calculated as compensation of employees divided by compensation of employees plus gross operating surplus. It measures what share of each unit of output is received by employees (including some of the self-employed; see the Glossary, mixed income entry). It is calculated for each industry separately. In rare cases where gross operating surplus is negative, labour share may be greater than 1. Labour share is related to compensation of employees as a percentage of Gross Domestic Product, but unlike that series includes part of mixed income in the numerator and does not include taxes less subsidies on production in the denominator. For previous Office for National Statistics (ONS) work on labour share, see Estimating the impact of the self-employed in the labour share.

To fully understand trends in the labour share, labour costs (ULCs; ALCH) must be considered. Labour share is relevant to ULCs and ALCH because its numerator is similar to total employment costs and its denominator is similar to nominal gross value added (GVA), while ULCs is defined as total employment costs divided by real GVA.

Expressed mathematically:

$$
\begin{aligned}
Labour\ Share &= \frac{Total\ Employment\ Costs\ \ (inc\ Subsidies)}{COE + GOS + MI} \\
&\cong \frac{Total\ Employment\ Costs}{Nominal\ GVA} \\
&= \frac{Total\ Employment\ Costs}{GVA\ Deflator \times Real\ GVA} \\
&= \frac{1}{GVA\ Deflator} \times \frac{Total\ Employment\ Costs}{Real\ GVA} \\
&= \frac{1}{GVA\ Deflator} \times ULCs
\end{aligned}
$$

This means that it should approximate ULCs divided by the implied GVA deflator, which can be understood as ULCs in real (inflation-adjusted) terms. Different changes of ULCs and the labour share can then be related to changes in the GVA deflator. However, the approximation is less precise the higher employment subsidies are.

Employment subsidies are calculated from data provided by HM Treasury, while pandemic-related subsidies (the Coronavirus Job Retention Scheme (CJRS) and the Self-employment Income Support Scheme (SEISS)) are supplied by HM Revenue and Customs (HMRC). Regular subsidies data are available for the whole economy only, and the subsidies are allocated to industry sections using each industry's proportion of compensation of employees. Industry data are available from HMRC for CJRS payments. SEISS payments are allocated to industry sections using each industry's share of mixed income. As with mixed income (see Glossary) only part of SEISS payments are included in employment subsidies. The share of SEISS payments that is deducted from total employment costs is set at the same value. It is assumed that no SEISS payments were received by partners in registered partnerships.

7 . Strengths and limitations

Strengths

As noted in measuring the data, unit labour costs (ULCs) and average labour compensation per hour (ALCH) have been calculated using data consistent with each other and with output per hour worked. This consistency allows users to compare changes in the three series without the comparison being invalidated by different measurement and coverage of the components. This improves analytical usefulness.

ULCs for the whole economy are now consistent with ULCs for industry sections. This allows valid comparison of data for an industry section with the whole economy. It also means that the mixed income component of total employment costs is calculated using the labour share for each industry weighted by that industry's share of mixed income, meaning that labour shares in industries with no mixed income do not adversely affect the estimate of total employment costs for the whole economy.

Limitations

This methodology reveals a first-order effect within the labour market and does not represent the final effect of all the changes. For example, increases to ULCs may lead to employers increasing prices to compensate, potentially leading to inflation and no increase in labour share or real wages.

8 . Related links

Productivity overview, UK: April to June 2021
Article | Released 7 October 2021
Economic productivity measures, including output per hour, output per job and output per worker for the whole economy and a range of industries; productivity in the public sector; and international comparisons of productivity across the G7 nations.

Productivity development plan: 2021 to 2023
Article | Released 6 October 2021
This development plan builds on recent improvements to Office for National Statistics (ONS) productivity statistics and looks at introducing new outputs, further improving our productivity statistics and consolidating our improvements to date.

GDP quarterly national accounts, UK: April to June 2021
Bulletin | Released 30 September 2021
Revised quarterly estimate of gross domestic product (GDP) for the UK. Uses additional data to provide a more precise indication of economic growth than the first estimate.

Index of labour costs per hour, UK: July to September 2020
Bulletin | Released 15 December 2020
Changes in the costs of employing labour, analysed by sector and industry. Experimental Statistics.