

Revision of labour

Unpacking the ONS's new estimates for productivity and hours worked

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The UK's post-financial crisis productivity slowdown has been a defining feature of our economic landscape. But changes in how the Office for National Statistics (ONS) calculates the average hours worked by employees suggest that output per hour grew *twice as fast* between 2007 and 2019 as previously thought. This takes the UK's growth rate from second worst in the G7 over this period to second best. This does not, however, mean that the *level* of UK productivity today is much closer to that of our advanced economy peers: output per hour is still 10 per cent higher in France and 20 per cent higher in Germany. Instead, the revisions suggest that Britain's productivity deficit relative to other countries has deeper roots that predate the financial crisis.

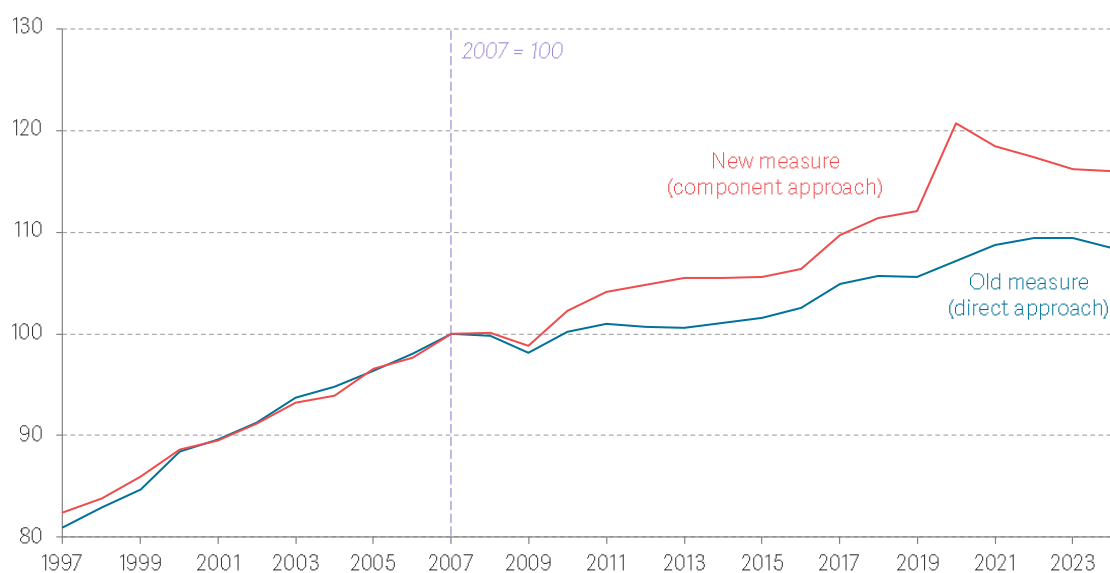
The revisions do not affect the amount we are producing, and nor do they alter the stagnation in incomes and wages that has held back families' living standards. But they nonetheless raise important questions for policy makers. The revised data suggests that average weekly hours fell by around 5 per cent between 2007 and 2024, rather than rising by 1 per cent – a decline that has been largely missing from the policy debate about labour supply, which has focused on people out of work. And it raises questions about the OBR's assumption for long-run productivity growth, since its current assumption (downgraded ahead of the Autumn Budget 2025) now looks to be below Britain's post-financial crisis average. The ONS's latest estimates have likely come too late to affect next month's Budget. But even if they are only partly right, the questions they raise for the Government and official forecasters are hard to ignore.

New ONS figures suggest a much-changed story for productivity growth since the financial crisis

Measured properly, growth in UK labour productivity – the average value of economic output produced in an hour of work – has [undergone a sharp upturn](#) in recent years. Yet [new estimates](#) published by the ONS imply an even more fundamental change to the recent history of UK productivity growth, going back as far as the financial crisis.

These revisions have been driven by changes in how the ONS estimates average hours, rather than by changes in output. The new estimates use a 'component approach' to measuring hours worked (which we explain in more detail below) instead of the 'direct approach' of counting reported hours in the Labour Force Survey (LFS). As shown in Figure 1, the new approach implies that output per hour in Britain has grown significantly faster since the financial crisis than previously thought, because the same level of output has been produced with fewer hours' work than the old measure suggested. On this basis, productivity grew by an average of 1.0 per cent a year between the eve of the financial crisis and the eve of the pandemic (2007-2019) – double the previous headline estimate of 0.5 per cent.

Figure 1 **New ONS estimates imply much faster productivity growth since the financial crisis**
Indices of real output per hour, by approach to measuring hours worked (2007 = 100): UK

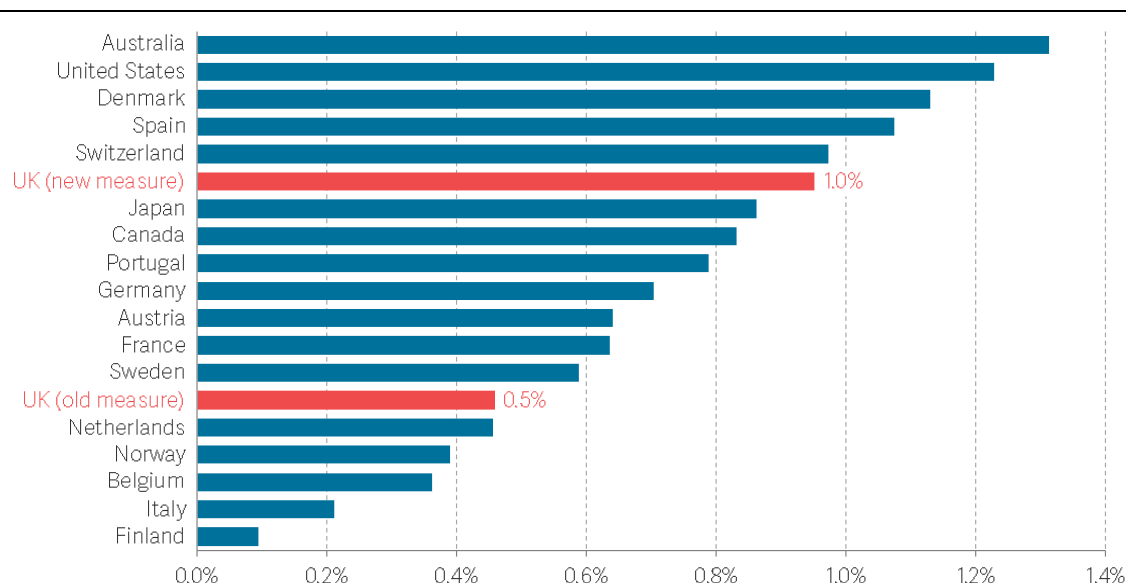


Notes: Real output is the chained volume index of whole economy GVA. It is consistent with the Blue Book 2026 and is the same for both measures.

Source: ONS, Component approach to measuring labour productivity, UK: 1997 to 2024.

This new data challenges a widely held view about Britain's economic stagnation: namely that low productivity today is largely due to the UK falling behind its peers after the financial crisis. In fact, as shown in Figure 2, the ONS's new estimate of productivity growth between 2007 and 2019 puts Britain comfortably in the top half of high-income OECD members. And among just the G7 countries, Britain goes from having the second-worst rate of productivity growth over this period (ahead of only Italy) to the second-best (behind only the US).²

Figure 2 **According to the ONS's new estimates, the UK did not have especially slow productivity growth after the financial crisis**
Average annual growth in real output per hour: high-income OECD countries, 2007-2019



Notes: Real output is the chained volume index of whole economy GVA. UK GVA is consistent with the Blue Book 2026 and is the same for both measures. Both UK measures are from the ONS, while all other countries' data is from the OECD.

Source: RF analysis of OECD, Productivity database; ONS, Component approach to measuring labour productivity, UK: 1997 to 2024.

Unfortunately, this does not mean that the *level* of UK productivity today is much closer to our advanced economy peers than we previously thought. This is because [the internationally comparable OECD data](#) we typically use to look at differences between countries already implied a higher level of UK productivity in 2024 than the ONS's old estimates. So the ONS's upward revisions to past productivity growth have merely closed the gap between the two institutions today, rather than moving the UK up the international rankings. Again, the differences here are driven by hours and not output. The OECD uses a [third measure](#) that, in recent years, gives a level of UK hours worked that is very close to the ONS's revised approach.³ As a result, the difference between the OECD's estimate of UK output per hour in 2024 (£50.74 in 2024 prices) and the ONS's new measure (£50.06) is just over 1 per cent, versus an almost 8 per cent gap between the OECD and the ONS's old estimate (£46.77).⁴

So, while the facts of UK *growth* have changed, the fact that we produce less per hour than our neighbours in France and Germany – a key finding of our [Economy 2030 Inquiry](#) – has not. After adjusting for cross-country price differences, the new ONS data still implies output per hour in 2024 was 10 per cent higher in France than in Britain, and a staggering 20 per cent higher in Germany. But it does suggest that our relative productivity weakness is not principally the result of falling behind the pack in the 2010s. Rather, our productivity deficit versus our peers may have deeper roots that pre-date the financial crisis.

Revisions have come from fewer hours worked, not more output

As noted above, these revisions have not been driven by higher output than previously thought. Instead, they reflect that the same level of output has been produced with fewer hours' work. This is not because fewer people are in work, but because those who are employed are working less, on average, than earlier estimates suggested.

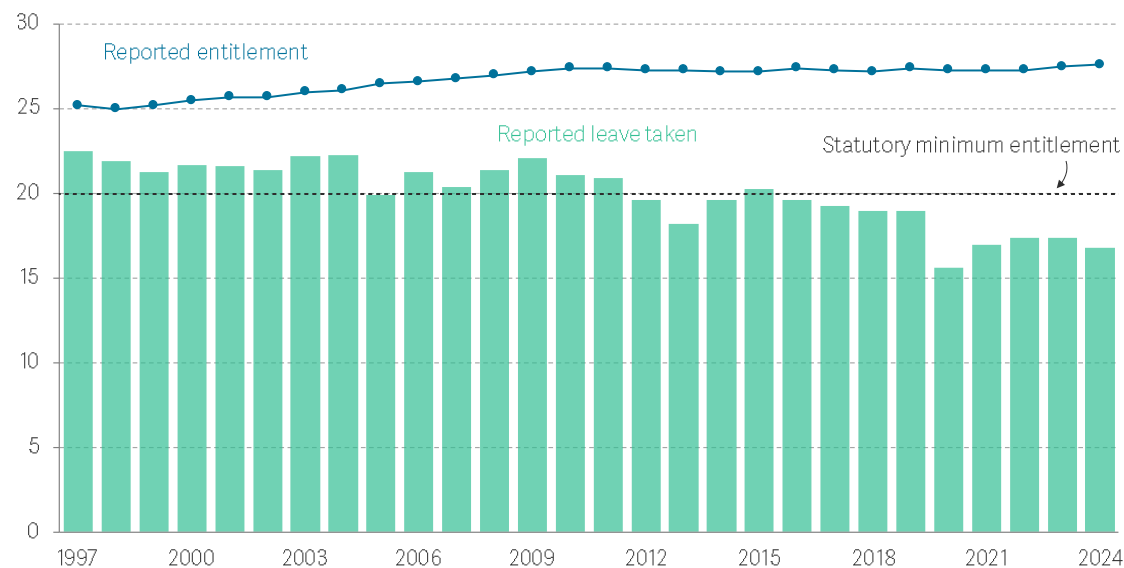
Previously, the ONS calculated average hours worked using a straightforward estimate from the LFS: it asked people in employment how many hours they had worked in a given week and took the average. But the ONS's new analysis shows that this approach overestimated hours worked because it understated how much leave people take. One reason is that people are much less likely to respond to the LFS when they are on annual leave, so respondents are disproportionately likely to have been at work during the survey reference week, and therefore to have worked more hours, on average, than the workforce as a whole. Moreover, this bias has worsened over time: as LFS response rates have fallen – with a particularly sharp drop in 2020 – employed respondents have become increasingly unrepresentative of the wider workforce.

Figure 3 illustrates the implications of this bias. The number of days of annual leave taken by full-time employees implied by the LFS has fallen over time – particularly since the onset of the Covid-19 pandemic – even though the statutory minimum entitlement has stayed the same and employees' average annual entitlement has been rising. People may not take their full leave entitlement for [a variety of reasons](#), such as choosing to trade some of their leave for additional pay, feeling pressure to work during their holidays or having an employer who fails to [comply with employment law](#). But it is implausible that, in 2024, the average full-time employee took 10 fewer days of leave than they were entitled to, and three fewer than the legal minimum.

Figure 3

LFS-based estimates implied that the average employee took three fewer days of annual leave than the legal minimum in 2024

Average days of annual leave among full-time employees implied by the Labour Force Survey, average reported annual leave entitlement, and statutory minimum entitlement: UK



Source: ONS, Component approach to measuring labour productivity, UK: 1997 to 2024.

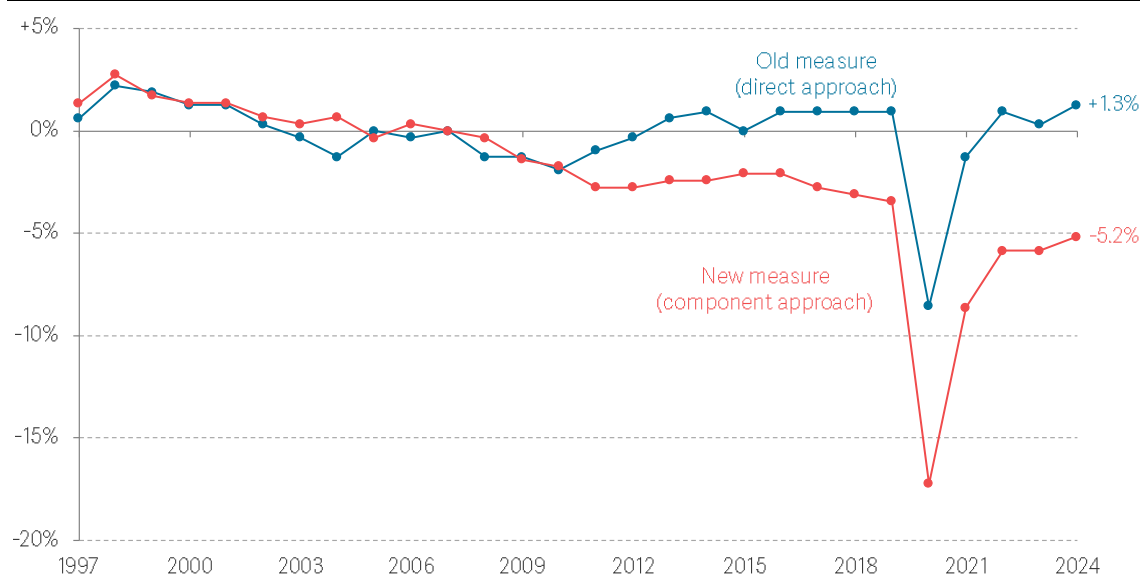
The revised figures instead use the 'component approach' introduced above. This starts with employees' average working hours, as reported by employers in the Annual Survey of Hours and Earnings (ASHE), and then adjusts for overtime and absences, including annual leave, sick leave and parental leave. Crucially, it assumes that workers take all the annual leave to which they report being entitled – in other words, that average annual leave taken matches the blue line in Figure 3. This is a strong assumption, and the true amount of leave taken probably lies somewhere between the two estimates. Nevertheless, it is more plausible than the long-term decline in the amount of leave taken that is implied by the LFS, which runs counter to rising entitlements.

This new data raises important questions for the Government about falling hours worked...

These revisions have important implications for policy. They do not change the stagnation in incomes and wages that has [weighed on families' living standards](#) over the past two decades. But they raise the question of why working hours have been falling, when previously they appeared to be rising. As Figure 4 shows, the revised data imply that average weekly hours fell by 5.2 per cent between 2007 and 2024, rather than rising by 1.3 per cent under the old approach. This is far more in keeping with longer-term trends – over the 17 years before 2007, average hours worked each week [fell by 4.6 per cent](#) – but is a sharp break from the post-financial crisis flatlining in hours implied by the old measure.

Figure 4 **The new estimates suggest that average weekly hours have fallen by 5 per cent since the financial crisis**

Change in average actual hours worked relative to 2007, by approach to measuring hours worked: UK



Notes: The old/direct approach estimates hours for employees' main jobs only, whereas the new/component approach includes all employee jobs.

Source: RF analysis of ONS, Component approach to measuring labour productivity, UK: 1997 to 2024.

Labour supply has been a key topic of debate in recent years. But it has focused almost entirely on the number of people who are [out of work](#), particularly the rising number who are not working due to sickness or disability. The ONS revisions suggest that this debate may have overlooked an important part of the picture: the decline in hours worked by those already in employment.

Whether this decline is a problem depends partly on [why it has happened](#). Over the long run, working hours tend to fall as economies get richer and people can afford to spend more time on leisure, family or other [activities they value](#) outside paid employment, and it is to be expected as employment rates rise among groups such as women [who are more likely to work part time](#). But not all reductions in hours reflect a positive choice. Some workers – particularly those in lower-paid jobs, where [part-time work is most prevalent](#) – may struggle to secure as many hours as they would like. And others may be [unable to do as much paid work as they would like](#) because of ill-health, a lack of childcare, or other caring responsibilities.

Even where workers make a genuine choice to work fewer hours, there can still be wider economic costs. Fewer hours mean lower earnings and reduced family incomes, and the revisions suggest that falling hours may explain more of the stagnation in weekly pay over the past two decades than previously thought. Falling hours also have consequences for the public finances, given that the Government receives [roughly half](#) of every extra pound that

additional work costs employers, through Income Tax, employee and employer National Insurance, VAT and the withdrawal of means-tested benefits.

Without knowing what has driven the additional fall in hours that these revisions uncover, it is difficult to say what policy makers would have done differently if they had been using the revised figures all along. But the revisions would at least have strengthened the case for policies that tackle the [barriers](#) that prevent people from working as many hours as they would like. These include compensation for last-minute shift cancellations (now being [implemented](#) through the Employment Rights Act), improved provision of flexible and affordable childcare, better social care, and more support for people with disabilities and health conditions who want to increase their hours. The revisions would also have given the Government more reason to think about how the tax and benefits system shapes incentives to work additional hours, including towards the bottom of the earnings distribution, where the Universal Credit taper can lead to very high marginal effective tax rates, as well as for very high earners. Britain remains a stagnation nation – but the way out may involve helping people work more, not just more efficiently.

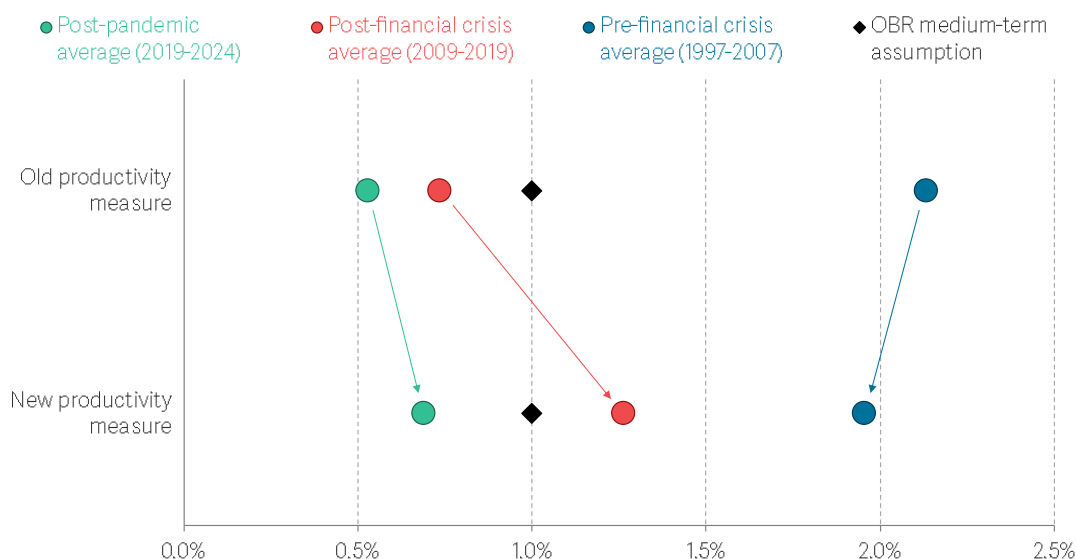
...and questions for the OBR about its economic forecast

The new data also presents important questions for the OBR, whose economic forecasts have had a significant bearing on policy at recent fiscal events. Ahead of the Autumn Budget 2025, the OBR [downgraded](#) its medium-term productivity growth assumption from 1.3 per cent to 1.0 per cent per year. This hit the OBR's forecast for future tax receipts and [pushed up government borrowing by £16 billion](#) in 2029-30. On its own, this was more than enough to wipe out the £10 billion of headroom that the Government had left itself at the time.

This productivity downgrade was undoubtedly painful for the Government, but would the OBR have made the same decision had it been equipped with the ONS's latest estimates? We cannot answer that question definitively, but Figure 5 provides some context.

Figure 5 **The OBR's medium-term assumption for productivity growth now appears to be below Britain's post-crisis average**

Historic annual averages for growth in real output per hour and OBR's latest medium-term assumption for annual growth in potential real output per hour: UK



Notes: Output in the historic averages is the chained volume index of whole economy GVA. It is consistent with the Blue Book 2026 and is the same for both measures. The old measure refers to the direct approach to calculate hours worked; the new measure refers to the component approach. The OBR's medium-term assumption is the growth rate of GDP per hour worked.

Source: RF analysis of OBR, Economic and Fiscal Outlook, March 2026; ONS, Component approach to measuring labour productivity, UK: 1997 to 2024.

At the time of the downgrade, the OBR [contextualised its new assumption](#) with reference to average productivity growth in three periods: before the financial crisis (1997-2007), after the financial crisis (2009-2019) and since the pandemic (2019-2024).⁵ As shown in the top row of Figure 5, the OBR's assumption for productivity growth sat well below Britain's pre-financial crisis average but comfortably above the estimates for the post-financial crisis and post-pandemic periods that were available at the time. However, as shown by the bottom row of Figure 5, this no longer holds relative to the ONS's new estimates: the OBR's assumption (1.0 per cent) is now below Britain's post-financial crisis average (1.3 per cent) and considerably closer to the average growth in the post-pandemic period (0.7 per cent).

In time, the OBR may want to revisit its long-run productivity assumption in light of the new ONS data. But that would need to form part of a broader assessment of the UK economy's ability to grow in the medium term, which may need to give more weight to what now looks like a persistent secular fall in average hours since the late 1990s. In [March](#), the OBR had potential average hours falling by 0.8 per cent over its forecast horizon; continuing the decline in actual average hours since 1998 would suggest around double that fall (1.7 per cent). Whatever the OBR eventually decides, the ONS's latest estimates have likely come too late to affect the forecasts for next month's Budget.

The ONS's latest release marks a potentially seismic shift in how we diagnose Britain's recent economic stagnation. Britain's post-crisis productivity slowdown may have been less of an international outlier than we thought, while the strong hours growth of that period looks more like a mirage than a miracle. Economists will no doubt debate the merits of the ONS's new methodology for some time yet. But even if they are only partly right, the questions they raise for the Government and official forecasters are hard to ignore.

¹ We are grateful to colleagues Ruth Curtice, Sophie Hale and Greg Thwaites for their input. However, any errors remain the authors' own.

² The ONS's new measure also implies a significantly stronger growth rate than the OECD's own estimates for UK productivity (drawn from the same database as the other countries in Figure 2). OECD data suggests that UK output per hour grew by an average of 0.4 per cent a year between 2007 and 2019.

³ Compared to the ONS's old estimates, the OECD's methodology changes the level of hours (and therefore output per hour) but has [only a minimal effect](#) on growth rates.

⁴ For comparability, all figures here use the same measure of UK GVA in 2024, taken from the Blue Book 2026. The level of hours worked implied by the ONS's new approach is derived as follows. First, we increase the previous measure of [productivity jobs](#) in 2024 by 4.7 per cent – the difference reported by the ONS when it published its [new productivity estimates](#). We then multiply this number of jobs by the published number of weekly actual hours per job in the new approach (27.5) and convert from a weekly to an annual figure.

⁵ These figures differ slightly from those reported in the November 2025 Economic and Fiscal Outlook for two reasons. First, they use a more up-to-date vintage of output data from the Blue Book 2026. Second, they measure output in terms of GVA rather than GDP. We also use a different labelling convention for time periods, in which the first year of each period is the base year (so 2009-2019 refers to growth between 2009 and 2019).