

# The Macroeconomic Policy Outlook

Gregory Thwaites

Real wages – measured in terms of the goods that workers can buy with their regular wages – rose by around 2 per cent in the year to February 2024. This is much faster than the average in recent years – real wages did not grow at all in the preceding 16 years. The positive side to this wage growth is that it has protected household incomes, but it may worry the Bank of England because real wages are rising faster than productivity per worker, which actually fell by 0.6 per cent in the year to Q4 2023.

This disconnect can't go on for ever: productivity is the main determinant of real wages over the long run. But it can go on for a while. Two main tailwinds have made recent real wage growth affordable. First, firms have saved money on pension contributions as higher interest rates have closed the historic deficits in pension funds. Second, global commodity prices have fallen back from the highs of 2022, giving a boost to workers' real wages by reducing the price of what UK workers buy compared to what they produce.

Overall, the current level of real wages now looks to be affordable, given productivity, taxes and relative prices - although the data are uncertain, the labour share does not look high. But we cannot rely on the tailwinds of the past year to propel future growth. For real wages to keep rising in the long run, we need a return to decent productivity growth.

## Real wages have been rising strongly over the past year, while productivity has fallen

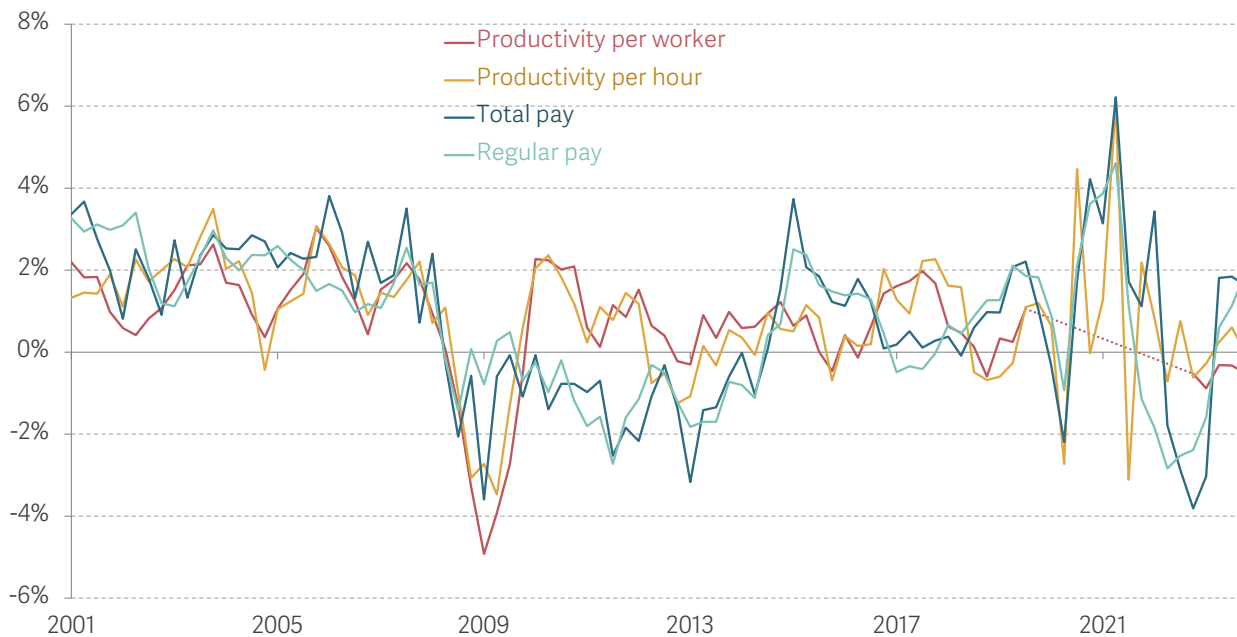
Real wages grew by 2 per cent in the year to February 2024 (Figure 1). This is a healthy growth rate – one that would have been respectable even in the pre-2008 days of regular and strong real wage increases. It's the strongest annual growth rate, outside of the distortions during the pandemic, in over four years.

But while real wages are growing like the good old days, productivity is not. In the 10 years to Q4 2007, output rose at an annualised rate of 1.7 and 2.1 per cent per worker and per hour respectively. In contrast, output per worker actually fell by 0.6 per cent over the four quarters to Q4 2023. This means that what British workers can *buy* with their wages is rising just as the amount they *produce* in their jobs is actually shrinking. This mismatch may be worrying the Bank of England, who pay close attention to labour costs.

So how is the country paying these higher wages? And how long can it last?

**FIGURE 1: Real wages are rising and productivity is falling**

Annual growth rates of productivity per hour and worker, and real average weekly earnings: UK



NOTES: Earnings are the annual growth rates of quarterly averages of average weekly earnings deflated by CPIH. The annual growth rates of productivity per worker are omitted between Q1 2020 and Q2 2023 because of distortions associated with the pandemic.

SOURCE: RF analysis of ONS, Average Weekly Earnings and ONS, Labour productivity

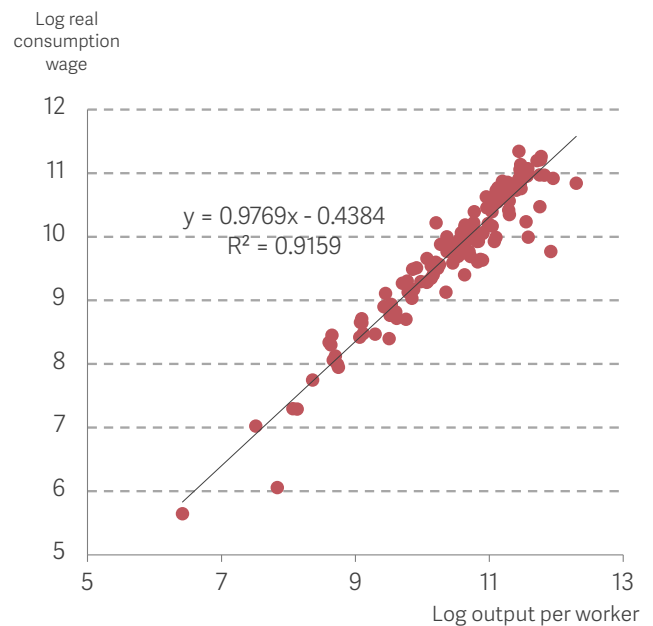
**This ‘decoupling’ between wages and productivity can’t last forever – in the long run, productivity is the dominant driver of wage increases...**

In the long run, productivity is the main determinant of wages. Whether we look back over a few centuries of UK data (Figure 2, left panel), or across 138 countries at different levels of development today (Figure 2, right panel), there is a tight link between productivity and wages. Both are about ten-times higher now in the UK than the UK in the mid-19<sup>th</sup> century, or in Cameroon today. Conversely, the main reason that UK real wages have grown so slowly over the past 16 years is that productivity has also been growing slowly. The level of real wages increased by 2.2 per cent – in total, not per year – in the 16 years to Q4 2023, and the main reason for this is that the level of productivity per worker only rose by 4.2 per cent over the same period.<sup>1</sup>

<sup>1</sup> Productivity per hour rose a tiny bit faster, at 5.7 per cent.

**FIGURE 2: Productivity drives real wages across countries and over time**

 Index level of productivity and real wages  
(2000=1): UK

 Level of productivity and real wages  
across countries in 2019


NOTES: In the left-hand chart, productivity is productivity per head and pay is the real consumption wage. In the right-hand chart, productivity per head is real value added (CGDPO) divided by employment, and the real consumption wage is productivity multiplied by the labour share and the relative price of consumption to output.

SOURCE: RF analysis of ONS, Labour productivity, Bank of England 'Millennium of Macroeconomic Data' and Penn World Tables

### ... but it's not the only one: profits, other labour costs and relative prices all play a role, especially in the short term

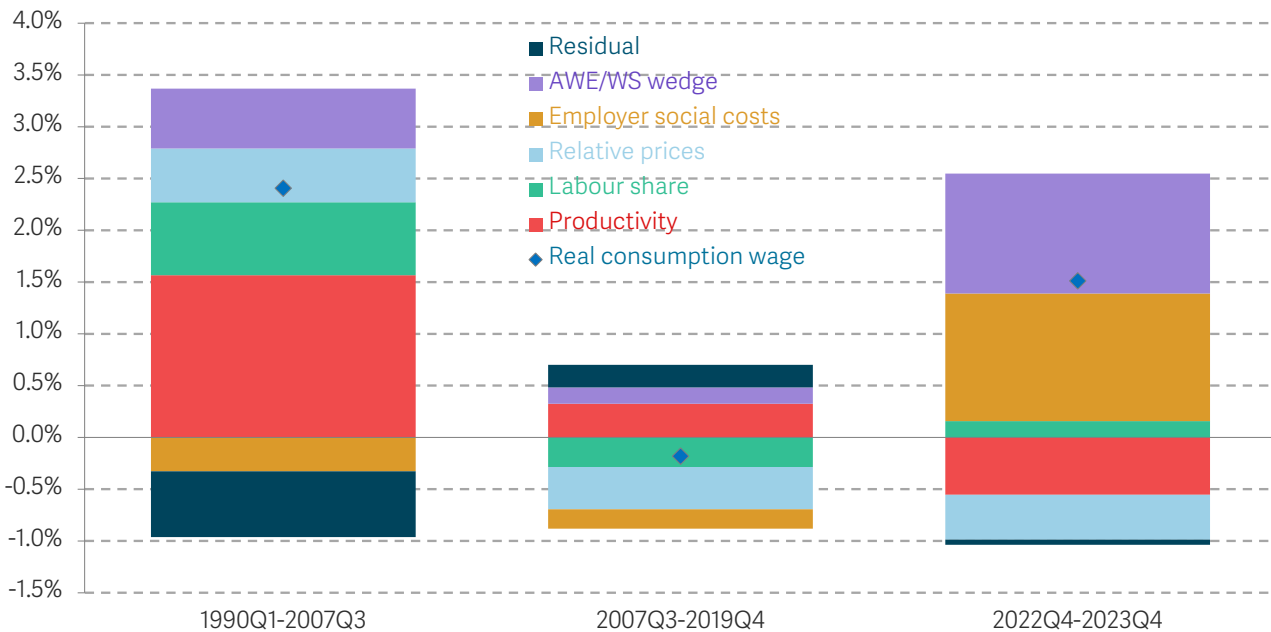
If workers produce more then, other things equal, they can be paid more. As we have seen, this is the main force driving real wages in the long run. But various factors can drive a meaningful gap between the growth rates of the real consumption wage (the amount of goods an employee can buy with their wage) and productivity for some time. First of all, employers have to pay non-wage labour costs, like pensions and employers' National Insurance, on top of wages.<sup>2</sup> Second, the price of what firms sell may diverge from the price of what consumers buy, through, for example, fluctuations in import prices. Finally, firms can pay workers a bigger or smaller slice of overall output – changing the labour share.

If we break down the contributions of these factors to real wage growth, then it is clear that productivity was the main driver of the long pre-GFC period of strong real wage growth (Figure 3). The other factors (e.g. the terms of trade) have weaker trends, if any, or (like the labour share) are inherently bounded. But they can be especially important over the short to medium run, and help to explain why the real consumption wage has been rising strongly over the past year.

<sup>2</sup> Wages are paid to employees, but output is produced by both employees and the self-employed, and around 11 per cent of total jobs are self-employed jobs. The self-employed don't earn wages but rather 'mixed income', a mixture of wages and profits. Differences in the productivity of self-employed jobs combined with shifts in the share of self-employment can therefore affect the affordable real consumption wage.

### FIGURE 3: Productivity growth drove growth in real wages during the long pre-GFC period of strong real wage growth

Contributions to growth in the real consumption wage: UK



NOTES: All contributions are in the form of log differences. Productivity is gross value added (CVM) per worker. The change in the labour share for the last two quarters is estimated using national accounts compensation of employees. Relative prices are the ratio of the gross value-added deflator to CPIH. Employer social costs are the ratio of compensation of employees to wages and salaries in the National Accounts. The AWE/WS wedge is the ratio of real average weekly earnings to ONS wages and salaries per job. The residual is the difference between the sum of the foregoing contributions and the change in the ONS official measure of the labour share.

SOURCE: RF analysis of ONS, Labour costs and labour income, Labour productivity, UK Economic Accounts and Average Weekly earnings.

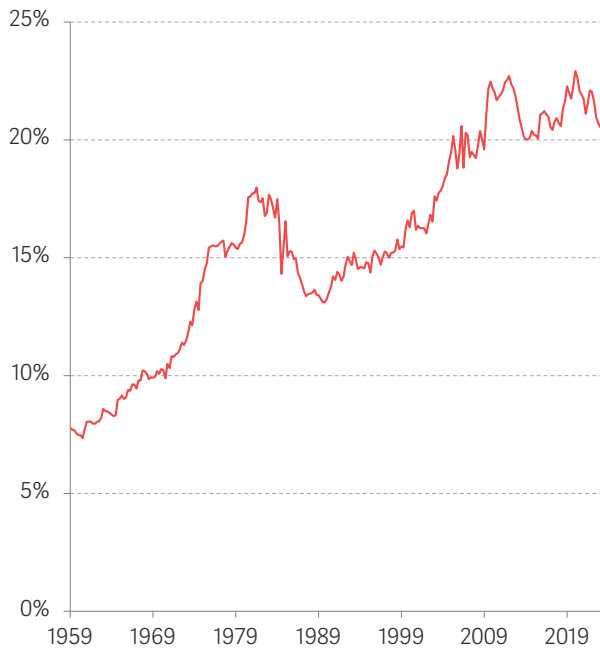
### Employers have been reducing their pension contributions from recent highs, reducing the wedge between wages and total labour costs

Some employment costs are paid to the government (employers' National Insurance) or to cover pensions and things like maternity and sick pay, rather than being paid directly to workers. These 'employer social contributions' add about 20 per cent to the wage bill (Figure 4, left panel). They have roughly tripled in the past three decades, but have fallen by about 2.5 percentage points since their recent peak in Q3 2020.

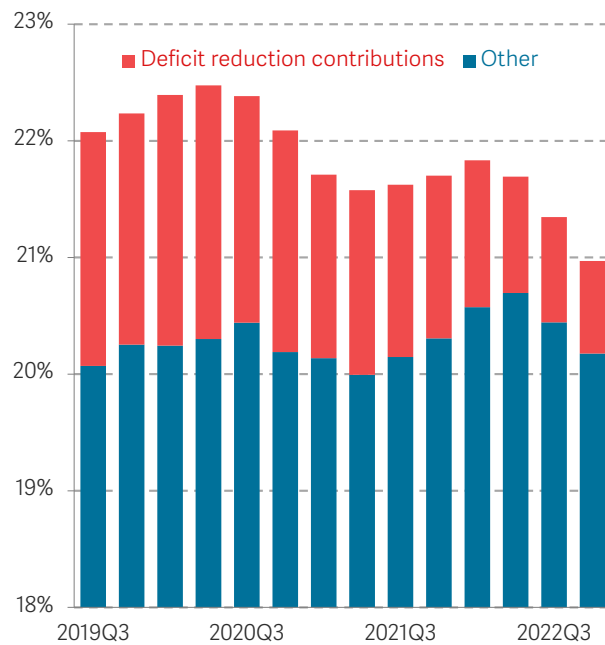
One factor driving this rise and fall has been [the need for employers to put extra money into Defined Benefit pension schemes in order to plug funding gaps created by low interest rates](#). As interest rates have risen over the past three years, these pension deficits have closed, and with them the need to make these extra payments. Even though they amount to only around 10 per cent of employer social contributions, they account for much of the fall in the total (Figure 4, right panel).

**FIGURE 4: Employers’ social contributions have been falling from recent highs, driven by reductions in pension deficits**

Ratio of employer social contributions to wages and salaries: UK



Ratio of pension deficit reduction contributions and other employer social contributions to wages and salaries, four-quarter rolling sum: UK



NOTES: The left-hand chart is the difference between compensation of employees and wages and salaries as a proportion of wages and salaries. The red bars in the right-hand chart are the sum of public- and private-sector deficit reduction contributions in the Funded Occupational Pension Schemes statistics, expressed as a proportion of National Accounts wages and salaries. SOURCE: RF analysis of ONS, UK Economic Accounts and ONS, Funded Occupational Pension Schemes statistics.

Interest rates will probably not rise further, but it’s possible that the ongoing switch from Defined Benefit to Defined Contribution schemes will permit further falls in pension contributions. Average regular DB and DC contributions are £10k and £2k per head respectively for the 0.7m and 11m active members of each kind of scheme. So, for the sake of illustration, if all active members of DB schemes switch to DC and contributions remain the same, employers will save a further £6bn per year in pension contributions – worth about 0.5 per cent of the wage bill.

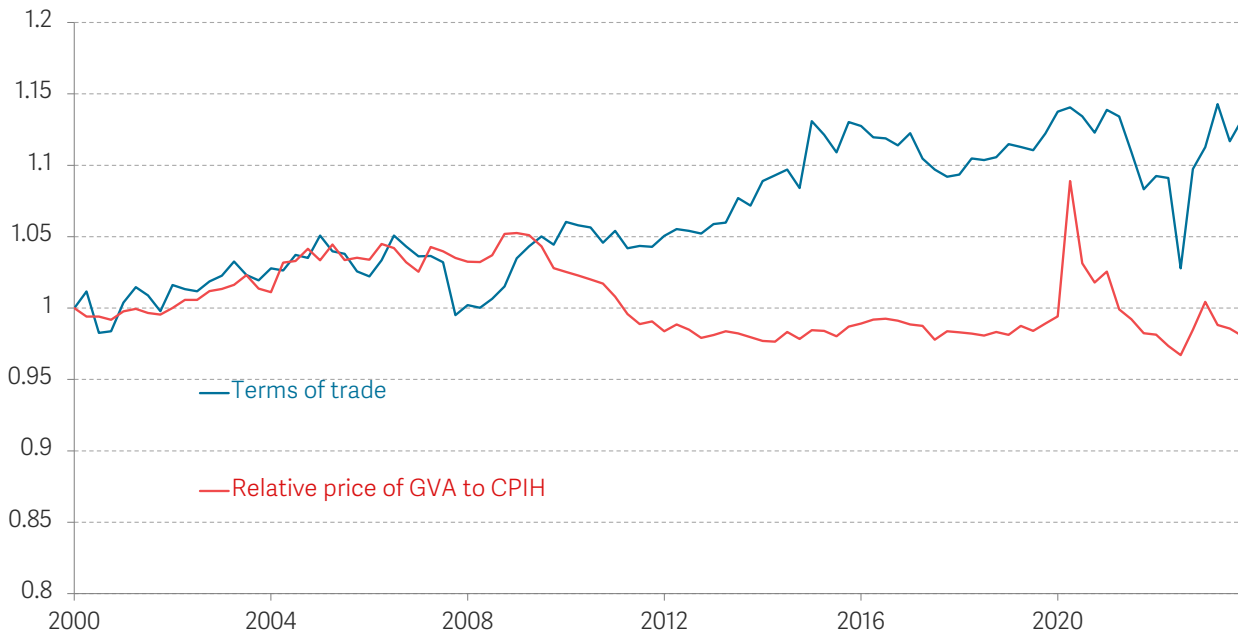
But pensions comprise only about a third of non-wage labour costs. Several other factors are also pushing non-wage labour costs, and therefore the wages that employers can afford to pay, in different directions. In particular, employer social contributions are being pushed up by the UK [becoming sicker](#), raising the cost of Statutory Sick Pay, and by the freezing of thresholds for employers’ National Insurance, which raises the effective rate of this tax as nominal wages rise. On the other hand, the fall in the birth rate is slowly reducing the cost of Statutory Maternity Pay, helping lower employer social contributions.

## The rebound in the terms of trade has boosted the purchasing power of wages

The price of what consumers buy is different from the price of what their employers sell, so changes in this relative price can create another wedge between productivity and the real consumption wage.

**FIGURE 5: The UK terms of trade have rebounded from the energy price shock**

The terms of trade and the relative price of gross value-added to CPIH



NOTES: The relative price of gross value added to CPIH is calculated as the ratio of the gross value added deflator (CGBV) to CPIH. The terms of trade is the ratio of (goods and services) export prices to import prices, where both prices are calculated as the ratio of the relevant values to volumes. Trade excludes 'SITC 9 Unspecified goods' due to volatility.

SOURCE: RF analysis of ONS, Monthly trade data and UK Economic Accounts

The most well-known reason for such a divergence is international trade, because some UK firms make exports (and so benefit when export prices rise), while UK consumers buy imports. In particular, the surge in the price of imports relative to the price of exports during 2022 – driven by higher prices for the commodities that we, on balance, import – reduced the real consumption wage that firms could pay. This made the country poorer even though UK firms did not necessarily become any less productive. Consistent with this, Figure 5 shows that the terms of trade (i.e. the ratio of export prices to import prices) fell sharply between 2021 and 2023, but have recovered as global energy and food prices have partially normalised (the improvement in the terms of trade in the 12 months to February 2024 was more-than-fully accounted for by import prices, which fell 2.9 per cent, compared to a 0.1 per cent fall in export prices). Moreover, in the long run, the UK's specialisation in services exports, which tend to rise in price relative to the goods we import, is one reason why there has been an upward trend in the terms of trade over the whole of the period shown in Figure 5.<sup>3</sup>

<sup>3</sup> This is important when we are thinking about the impact of the UK's services specialisation in international trade. Measured productivity growth tends to be faster in manufacturing than in tradable services, but the price of goods tends to fall relative to that of services. So a country like the UK that specialises in services exports will tend to see real national income rise faster than real GDP, whereas a manufacturing specialist will see the opposite, with GDP growth flattering real income.

But the terms of trade are only part of the story. The price of what consumers buy can differ from the price of what their employers sell for other reasons, including purchases by the public sector and investment (the main two components of final domestic demand other than household consumption), differences in coverage between broad household consumption and CPIH, and taxes on products (like VAT). As a result, the price of whole economy output relative to the CPIH is only weakly related to the terms of trade, and it has actually fallen in recent quarters.<sup>4</sup>

### The share of output going to workers is close to recent historical averages

Movements in the terms of trade are to some extent absorbed by firms – importers typically absorb a part of higher import prices in their margins, at least temporarily, while exporters can pocket part of an increase in export prices as higher profits. Similarly, the large pensions deficit reduction contributions might have been seen as ‘one-offs’. In other words, firms sometimes stabilise wages in the face of cost shocks by varying the fraction they pay workers what they produce. This fraction is measured as the labour share.<sup>5</sup> The labour share can vary quite a bit across countries, and over time, due to trends in technology, the composition of the economy within and between sectors, and the relative power of firms in product and labour markets.<sup>6</sup> In many countries, the labour share has fallen in recent decades.<sup>7</sup> It can also vary over the business cycle.

The UK labour share fell sharply in late 2022 and has yet to fully recover, having fluctuated around a reasonably stable trend over the past 20 years (Figure 6). In other words, the recent growth in the real consumption wage has not been paid for by firms paying an excessive fraction of output to workers.

Alternative variants of the labour share similarly are similarly at a normal level.<sup>8</sup> For example, the same qualitative picture holds if we strip out the sectors like utilities, real estate and health and education which either employ few workers or don’t set prices in the market that feed in to CPIH. However, Figure 6 also shows that the recent decline basically disappears if we index labour compensation to average weekly earnings, which have risen 2.5 per cent faster than national accounts wages and salaries per person in the past two years.<sup>9</sup> This underlines the uncertainty we have about what is going on in the labour market.

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<sup>4</sup> The real product wage has accordingly risen somewhat relative to the real consumption wage.

<sup>5</sup> It’s important to note that the complement to the labour share is not profits, as a business might think of them, but the broader concept of capital income. This includes imputed rents and also has to cover depreciation. What is left for business owners is a small fraction of broad capital income. See J Haskel, [What’s driving inflation: wages, profits, or energy prices?](#), Bank of England, May 2023.

<sup>6</sup> See D Autor et al, [The Fall of the Labor Share and the Rise of Superstar Firms](#), Quarterly Journal of Economics 135(2), 2020 and J Castro-Vicenzi and B. Kleinman, [Intermediate Input Prices and the Labour Share](#), unpublished manuscript, 2023.

<sup>7</sup> Although when we restrict attention to the corporate sector, it has not fallen in Europe. See G Gutierrez and S. Piton, [Revisiting the Global Decline of the \(Non-Housing\) Labour Share](#), American Economic Review: Insights, vol. 2, no. 3, pp. 321-38, 2020.

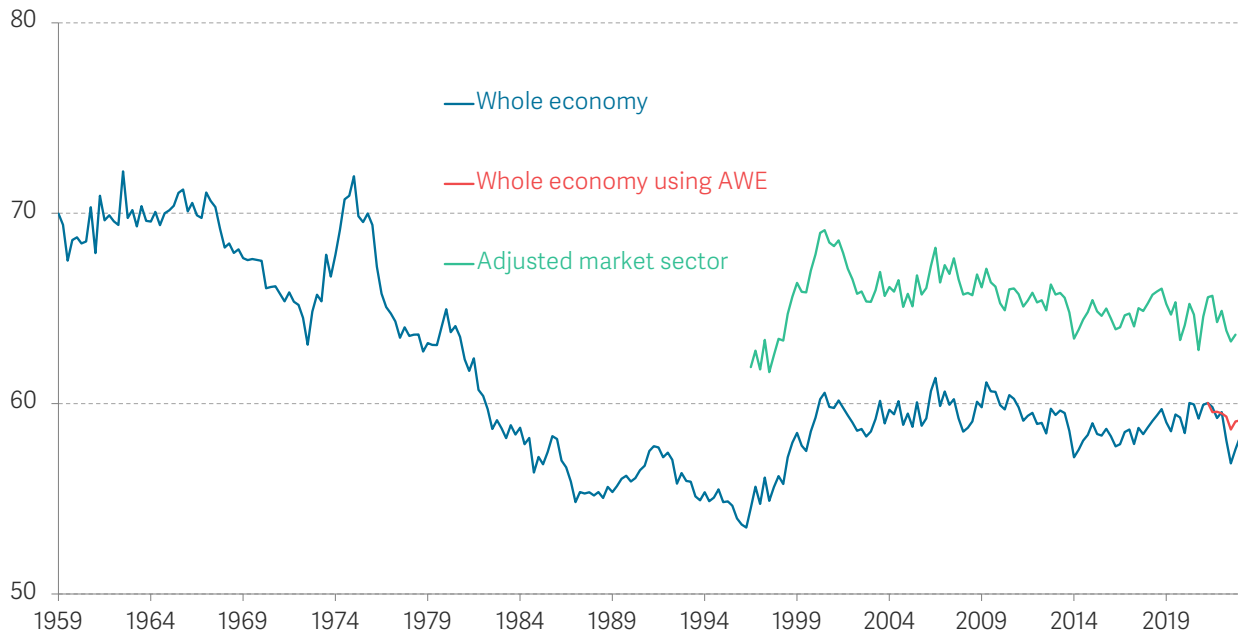
<sup>8</sup> See [this tweet thread](#) by Josh Martin, Bank of England.

<sup>9</sup> The flip side of this is the large contribution from the AWE-wages and salaries wedge in Figure 3.



### FIGURE 6: The labour share is rising but remains below its recent average

The whole economy labour share, the whole economy labour share with an adjustment to earnings, and the labour share in a subset of mostly private sectors: UK



NOTES: The last two quarters of the whole economy labour share are an estimate based on observed growth rates of wages, prices, productivity and employer social contributions. For 2022 and 2023, the AWE version multiplies the labour share by the ratio of cumulative growth in AWE to ONS wages and salaries per job since Q4 2021. Adjusted market sector weights together sector-level labour shares by those sectors' shares in GVA, omitting real estate, health, education, public administration, agriculture, mining and utilities.

SOURCE: RF analysis of ONS, Labour costs and labour incomes and ONS, Average weekly earnings

### For real wages to keep growing, a return to productivity growth will be key

To the (limited and uncertain) extent that the labour share is now somewhat below normal, there is a bit more room for wages to rise faster than productivity. Moreover, the recent tailwinds from pensions and trade could continue. But – ominously – the level of real weekly wages actually fell on the month in December. And if the labour share rises past normal levels, firms may try to restore profits by raising prices relative to wages. This would set off an inflationary process that the Bank of England would have to respond to, a process that would not ultimately result in higher real wages.<sup>10</sup>

The only way to get wage growth back for good is to fix Britain's productivity problem. Luckily, we have written [an entire book on how to do just that](#).

<sup>10</sup> See, for example, R Rowthorn, [The Conflict Theory of Inflation Revisited](#), Review of Political Economy, 1–12, 2024 and G Lorenzoni and I Werning, [Inflation is conflict](#), National Bureau of Economic Research Working Paper 31099, 2023.



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For more information on this report, contact:

**Gregory Thwaites, Research Director**

0203 372 2953 | [gregory.thwaites@resolutionfoundation.org](mailto:gregory.thwaites@resolutionfoundation.org)

