



Llywodraeth Cymru
Welsh Government

Chief Economist's Report and Fiscal Prospects

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Summary

Purpose and context

- This report reviews recent economic developments and the economic and fiscal prospects facing Wales. It does not present Welsh Government policy.

Current economic conditions and short-term prospects

- Wales is deeply embedded in the wider UK economy, and over the short-term outcomes in Wales are mainly driven by factors which are common to the UK as a whole.
- High and prolonged inflation has eroded living standards, with high energy and food prices disproportionately affecting people on low incomes and other disadvantaged groups.
- By the third quarter of 2023, UK GDP per head had barely surpassed the pre-pandemic level, and household incomes remained below that level – four years of lost growth.
- This compounds a long period of poor performance for the UK economy, stretching back to around the time of the financial crisis.
- The available data indicates that the economy in Wales has followed essentially the same trajectory.
- Recent data shows a softening of the labour market in Wales and the UK, with an increase in inactivity due to ill health. However, in historical terms, the labour market in Wales continues to perform better than in the 1990s, prior to devolution.
- As of 2023, UK trade intensity remains 1.7 per cent below its 2019 level, versus an average increase of 1.9 per cent across other G7 economies, and the trend in Welsh export performance since around the time of the referendum has been very similar to that for the UK as a whole.
- Although inflation has fallen sharply, the OBR expects inflation to remain high for longer than previously expected. The OBR also expects growth to remain sluggish and for unemployment to rise, albeit relatively modestly. Low growth, high inflation and tax increases in combination reduce living standards. Real household disposable income (RHDI) per person is forecast to be 3.5 per cent lower in 2024-25 than their pre-pandemic level. This represents the largest reduction in real living standards since ONS records began in the 1950s.
- The OBR forecasts for the UK are broadly applicable to Wales. As the latest data suggests income fell slightly less in Wales in the years following the pandemic's initial impact (probably reflecting government support measures), incomes in Wales may recover pre-pandemic levels one year earlier than in the UK, in 2025-26. This would nevertheless represent an unprecedented seven lost years of income growth.

Longer term economic challenges and opportunities

- The longer-term economic challenges and opportunities facing Wales are largely unchanged as compared with previous Chief Economists Reports but have been exacerbated by the cost-of-living crisis and the pandemic.
- A key long run challenge remains relatively weak productivity, the main long run driver of sustainable increases in pay, prosperity, and the tax base.
- Challenges also remain in the labour market: employment opportunities are restricted for many disadvantaged groups, particularly the disabled, those with long term health conditions, and people with low skill levels.
- Employment creation has been unevenly distributed across Wales.
- The rapid growth of remote working presents both a new challenge and an opportunity.
- Welsh population has been growing more slowly than in all English regions. With the number of deaths exceeding the number of births over recent years, due principally to a low fertility rate, in-migration has prevented overall population decline.
- Population change varies across Wales, with a number of local authority areas experiencing a decline in population over recent years.
- Demographic changes pose a number of challenges for Wales but also some opportunities.

Fiscal prospects

- The OBR has noted that the UK's fiscal position has improved since the previous forecast in March 2023. However, this improvement has been mainly driven by higher-than-expected inflation boosting tax revenues.
- These additional tax revenues have been used by the UK Government to fund tax cuts. No additional funding has been provided to take account of the impact of higher inflation on the cost of the provision of public services. Over the longer term, the value of the new tax reductions is almost equal to the additional unfunded pressure on public services from inflation.
- Beyond the current spending review period, day to day spending is projected to increase only very modestly in real terms and capital spending is fixed in cash terms. This represents a continued severe squeeze on public spending, with a large real-terms reduction in public investment. The OBR notes the real-terms reduction in public investment is much larger than the increase in private sector investment it expects to result from making "full expensing" permanent.¹
- Even on this basis the UK Government only meets its primary fiscal rule because the OBR assumes that the UK Government will resume increasing fuel duty in line with inflation (and remove the temporary reduction).
- The OBR has also judged that the UK fiscal position is unsustainable over the longer term. This principally reflects the effects of an aging population,

¹ "Full expensing" is the deduction of investment costs prior to determining liability for corporation tax.

compounded by the impact of higher interest rates on the cost of government debt.

- The OBR also notes additional pressures arising from increasing global security threats and the costs to the public sector of both the transition to net zero and adaptation to a changing climate. Further pressures and risks are associated with poor health, inactivity, and the loss of fuel duty revenues without replacement as the UK transitions to net zero.
- Wales is facing similar demographic pressures to England over the coming years. Whether resources are available to meet those pressures in Wales will depend to a large extent on whether the UK Government funds them appropriately in England.
- The devolved taxes are expected to continue making a positive contribution to Welsh Government finances.
- The large gap between total public sector revenue and expenditure for Wales represents a major transfer to Welsh people through the UK fiscal system.
- This transfer is the main reason for the gap between measures of household income and GDP in Wales and means that potential UK Government policy choices represent a key risk to Welsh living standards.
- Updated analysis shows devolved public spending in Wales remains broadly progressive across the income distribution.

Purpose and context

This report reviews economic trends and assesses economic and fiscal prospects. It does not present Welsh Government policy.

The report includes analysis that reflects the Welsh Government's commitments to extend the evidence base on Welsh fiscal prospects and to review options for developing the Welsh tax base. Further analysis will be undertaken to consider the fiscal implications of any recommendations from the Independent Commission on the Constitutional Future of Wales. The results of such further analysis will be reflected in future versions of this report.

This year's report has again been produced during a period of high uncertainty due to the unknown future trajectory for inflation and the evolving global political context.

The Office for Budget Responsibility's (OBR's) latest forecasts and the UK Government's Autumn Statement were published on 22 November.

Despite the unavoidable uncertainty, the OBR's forecasts and the UK Government's fiscal plans provide crucial context for assessing Welsh economic and fiscal prospects.

Many of the Welsh Government's policy levers operate most effectively over the medium to long term. This report therefore also reviews longer run trends and challenges that both pre-date the current crisis and will persist beyond it.

As a result of the pandemic, data collection for statistical surveys was disrupted, and in some cases the resulting statistics are unavailable, unreliable, or not reflective of longer run trends. For these reasons, the data used in this report may not always refer to the most recent periods.

Recent economic developments

The economy in Wales is deeply embedded in the wider UK economy. In consequence, the short run performance of the economy in Wales is very strongly influenced by developments across the UK – and indeed, beyond.

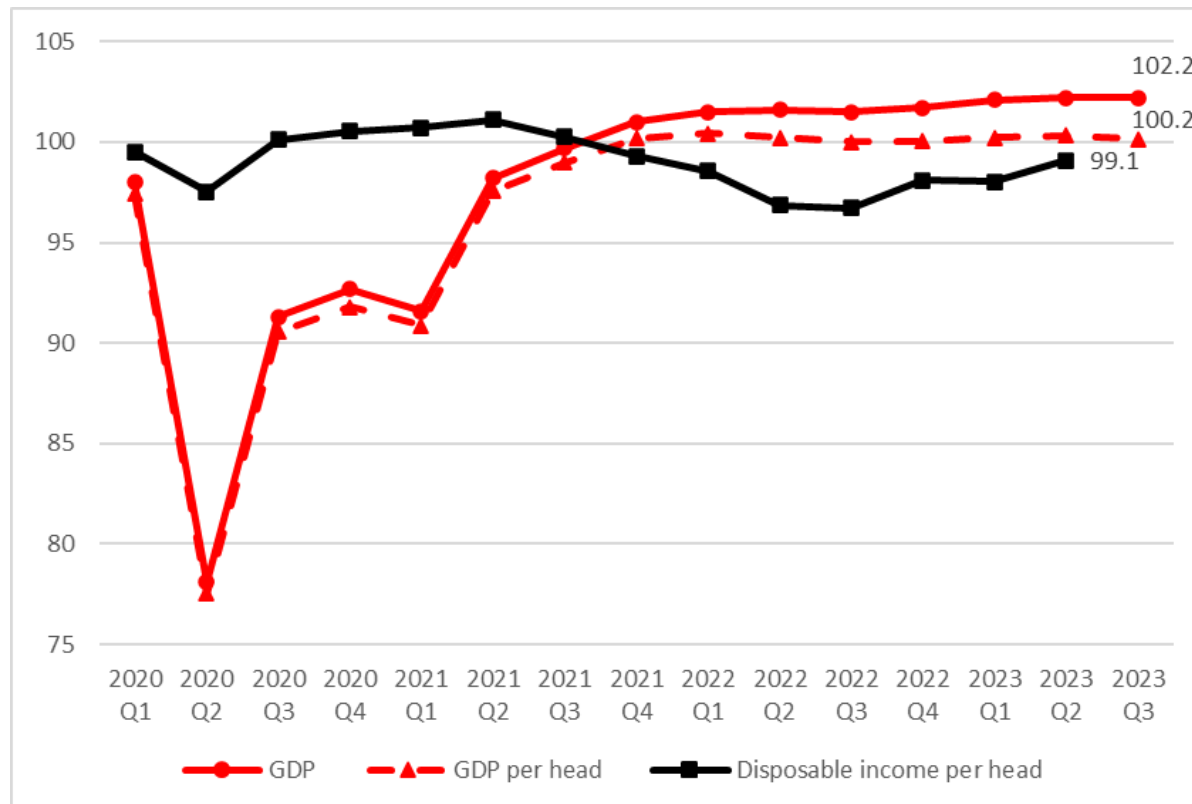
The economy has faced an unusually high level of turbulence over recent years. This turbulence has largely reflected non-economic factors: the referendum on leaving the EU, the pandemic, and latterly the cost-of-living crisis, in part a consequence of the war in Ukraine.

As in other parts of the UK, the combination of very sluggish economic growth and the cost-of-living crisis has had a major adverse impact on living standards in Wales.

GDP, inflation and living standards

Chart 1 shows the recent trends in UK real Gross Domestic Product (GDP) and UK real disposable household income per head. Data for total GDP and GDP per head are available up to the third quarter of 2023, with data for household income available only up to the second quarter.

Chart 1: UK GDP, GDP per head and disposable income per head, real terms (2019 =100)

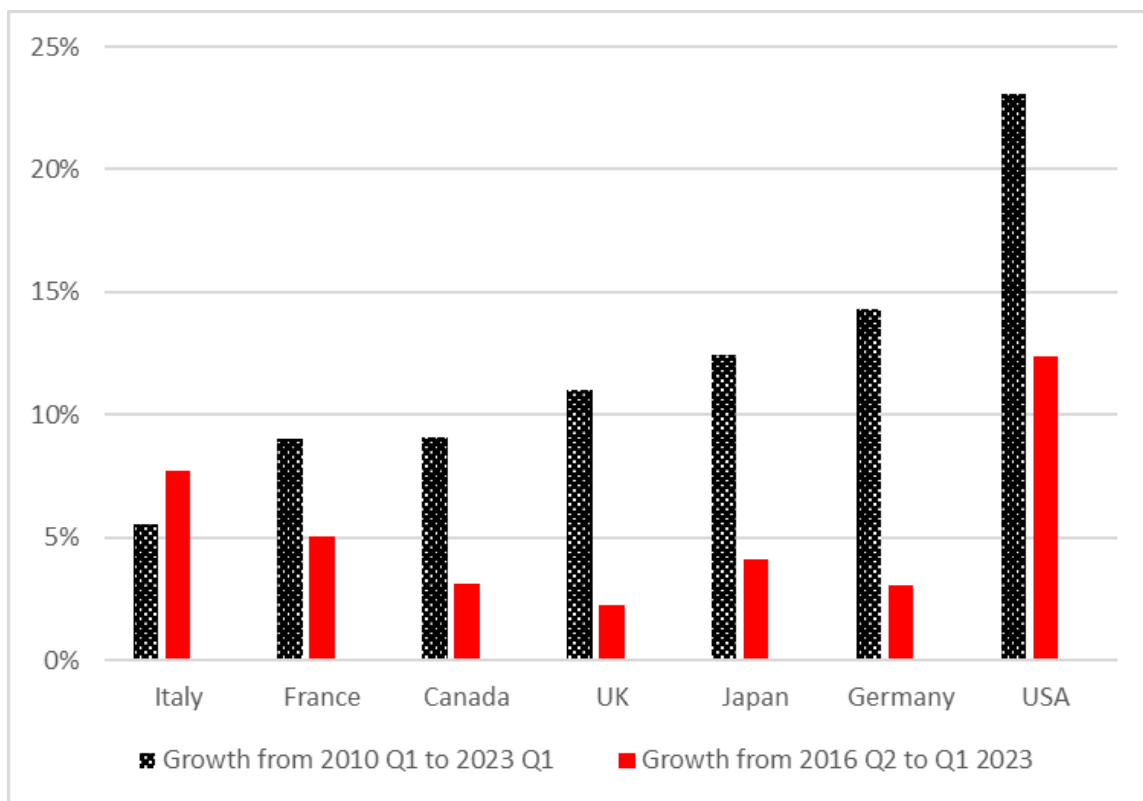


Source: ONS

The chart shows that by the third quarter of 2023, total UK GDP had surpassed pre-Covid levels, but when expressed on a per head basis growth had been negligible – so effectively there has been four years of lost growth.

Taking a longer-term perspective, UK growth has been lacklustre since around the time of the financial crisis. Over the period since the beginning of the recovery from that crisis, on a per capita basis, UK growth has been below the average for the G7, and since the referendum on leaving the EU, the UK has had the lowest growth in the G7 (see Chart 2). Annual average growth over the period as a whole has been around one per cent, but this is flattered by a recovery in employment levels in early years of the recovery from the pandemic. Underlying productivity growth has been even more anaemic.

Chart 2: GDP per capita growth, G7 countries



Source: OECD.

During 2023, the ONS suspended production of quarterly GDP estimates for Wales due to the level of revisions and a lack of confidence in their reliability. However, the OBR has acknowledged that over recent years, and when expressed on a per capita basis, the short to medium term trend in GDP in Wales has been indistinguishable from that for the UK - although there is some random variation.

High consumer price inflation over the last two years has compounded the effects of slow growth and eroded living standards, such that, by the second quarter of 2023, average incomes across the UK still remained below pre-Covid levels.

High inflation has of course therefore had a major adverse impact on living standards in Wales. Prices of essentials have surged. Compared with pre-pandemic levels, food prices are up nearly 30 per cent and energy prices up 8 per cent. Surging food and energy prices are impacting particularly severely on poorer households. Compared with the UK average, Wales of course has a relatively high proportion of low-income households.

CPI inflation rose above the Bank of England's target of two per cent in mid-2021. It then rose sharply to reach a peak of 11.1 per cent in October 2022. Following this peak, inflation has trended downwards but the latest (October) figure of 4.6 per cent remains well above target. The decline in inflation has been largely accounted for by a decreasing contribution from food prices, which have fallen from high levels earlier in the year, and from electricity and gas bills, which have stabilised below their peaks but at historically high levels.

Inflation has been higher, and more persistent, in the UK than in most other major economies.

In its November Monetary Policy Report, the Bank of England expected CPI inflation to fall significantly in the near term, reflecting lower annual energy inflation and further declines in food and core goods price inflation. Services price inflation, however, is projected to remain elevated in the near term, with some potential month-to-month volatility, and overall inflation is not expected to return to target until 2025.

Earnings have increased in nominal terms more than originally expected by the OBR and the Bank of England. Public services are very labour intensive, so wage inflation is the key driver of the costs of public service delivery.

Reflecting the higher-than-expected increase in nominal earnings, recent data shows whole-economy earnings have increased modestly in real terms, but this follows a period of decline. The pressure on real wages followed a prolonged period during which real wage growth has been exceptionally weak. Paul Johnson of the Institute for Fiscal Studies recently stated: "Real [UK] average weekly earnings are [similar] today [to] November 2005. A completely unprecedented period with no earnings growth..... [it is] likely this has not happened over any comparable period since the Napoleonic wars."

In September 2023, the Resolution Foundation projected that, following a fall in real incomes in 2022-23, real incomes are expected to stagnate in 2023-24. This would mean that over the two-year period real incomes will have fallen by around 4 per cent. On top of this, they also expect real incomes to fall again next year.

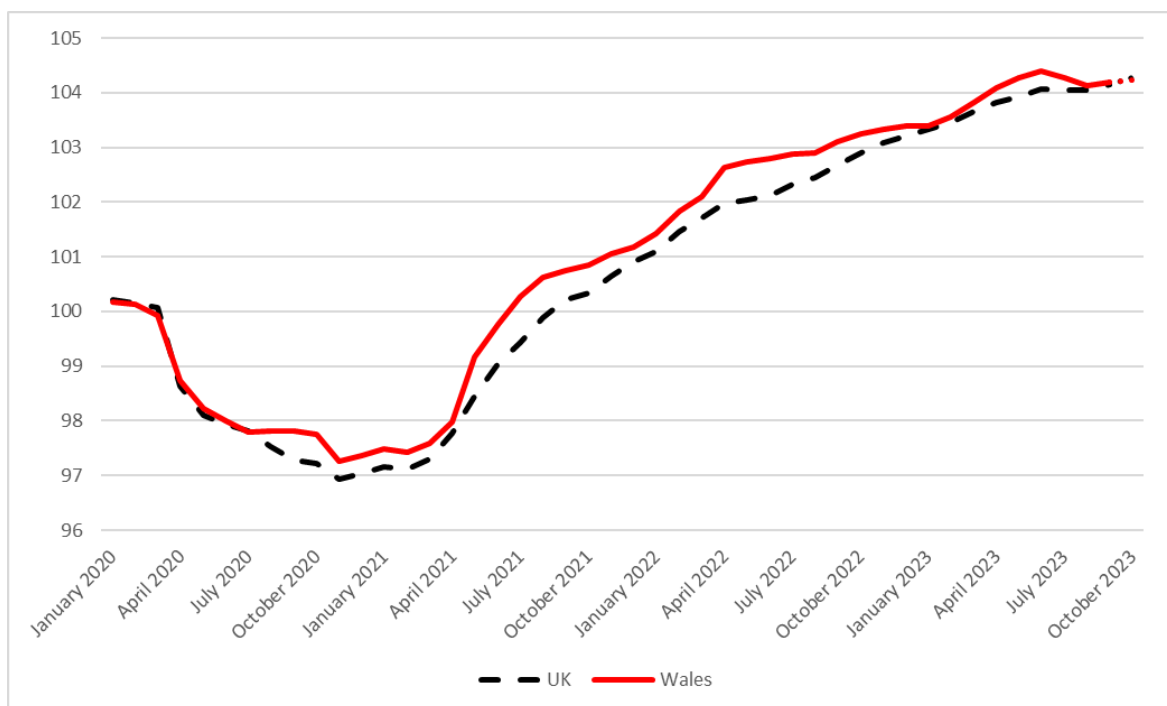
Low-income households have been most affected by rising prices. ONS data shows that lowest-income households experience a higher-than-average inflation rate while the highest-income households experienced lower than average inflation. This disparity is due to low-income households being more affected by high food and energy prices. Young people and people that rent homes (overlapping groups), minority ethnic groups and the disabled are also particularly affected.

There is evidence that levels of debt are increasing amongst low-income householders, and food bank charities are reporting an increase in demand.

Employment and the labour market

The most timely and reliable statistics available on Welsh economic performance have in the past been those for the labour market. However, the ONS have recently acknowledged that the headline data from the Labour Force Survey has become unreliable, reflecting deteriorating response rates. Measures are being put in place to improve the survey, but in the meantime the best timely indicator of Welsh relative performance is probably that provided by the figures for the number of employees available from the real-time PAYE system (see Chart 3).

Chart 3: Employees, Wales and the UK (2019 quarter 4 =100).



Source: ONS

Note: Data for the most recent month, October 2023, is provisional and liable to revision.

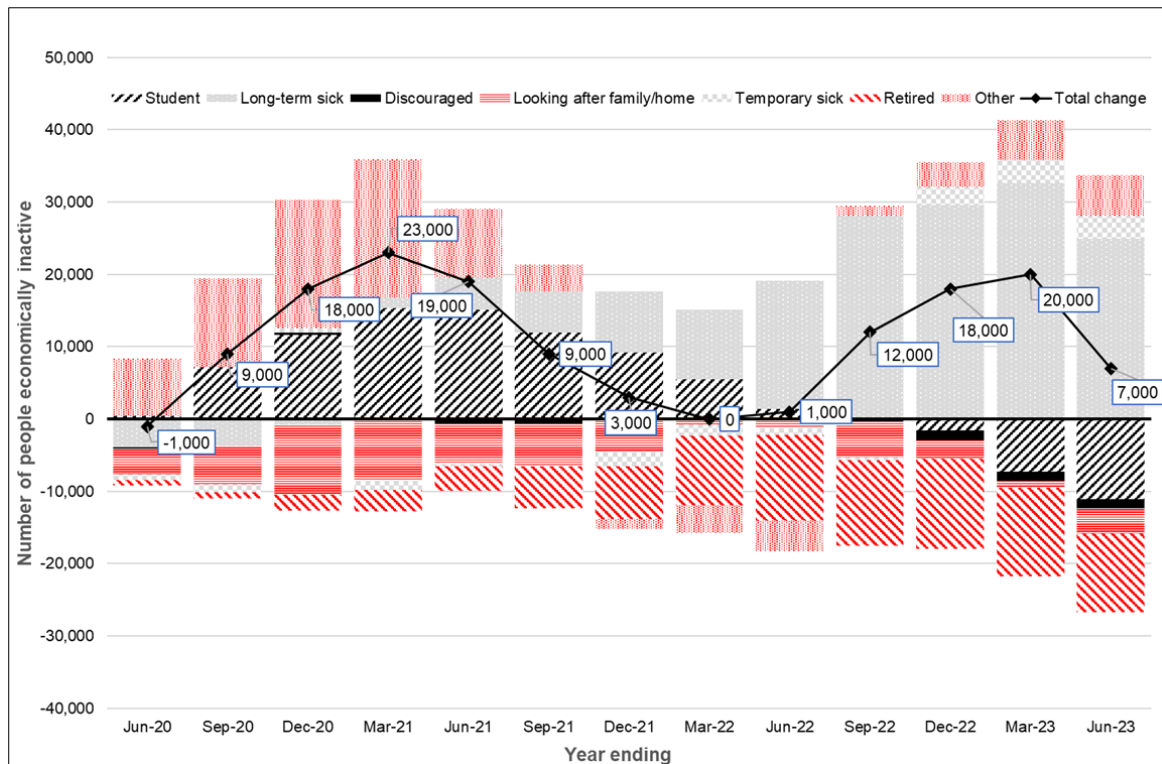
The chart indicates that throughout the pandemic and the subsequent recovery the labour market in Wales has performed similarly to the UK as a whole.

Overall, the labour market in Wales and the UK performed better than might have been expected given the large reductions in GDP. Government support measures clearly played an important role here.

However, the most recent data for both Wales and the UK shows signs that the labour market has softened with employment rates down modestly.

As across the wider UK, economic inactivity in Wales is above pre-pandemic levels. Data for Wales is shown in chart 4. While confidence in the numbers may be affected by recent concerns about the reliability of the source survey, it is believed that the chart provides a good indication of the key factors driving recent changes.

Chart 4: Economic inactivity in Wales (aged 16-64), change since year ending March 2020



Source: Welsh Government: Annual Population Survey.

The chart shows that there appears to have been a big increase in people who are inactive because they are too ill to work compared with pre-pandemic position. This result has persisted over recent quarters and is observed at both Welsh and UK levels. Rising inactivity owing to ill-health is not confined to older working-age people, even though older people account for most of the increase. There has been a substantial rise in inactivity among younger workers too, many with mental health issues.

Inactivity due to looking after the family home has fallen, perhaps in part due to the increased prevalence of hybrid working and working from home.

In other respects, for example, trends in inactivity due to retirement, the picture differs between Wales and the UK, but in view of potential issues of survey unreliability it is unclear how much confidence should be placed in these findings.

Despite recent indications of weakening, the performance of the labour market in Wales compares well with the rest of the UK on an historical basis. As noted in previous reports,² recent performance contrasts with the period before devolution,

² [chief-economists-report-2020.pdf \(gov.wales\)](#)

when the employment rate in Wales was typically five to six percentage points lower than the UK (reflecting a much higher level of economic inactivity in Wales).

Looking forward, a deterioration in labour market conditions across the UK is in prospect, as consumers and businesses retrench in response to the reduction in real incomes. Prospects are discussed further below.

Irrespective of the state of the labour market at any particular point in time, disadvantaged groups under-perform. These groups include people with low skill levels, disabled people and those with long term health conditions, women with young children, and members of certain minority groups.³ All such groups are liable to suffer disproportionately if labour market conditions deteriorate.

International trade

International exports provide an important market for Welsh firms, whilst imports provide inputs to businesses and goods for consumers, typically keeping prices down and increasing consumer choice.

Since 2019, goods exports have on average accounted for a higher proportion of GDP for Wales than most other parts of the UK. This implies Wales may be more exposed to economic shocks from changes in trading relationships than elsewhere in the UK.

Recent years have proven to be particularly volatile for global trade, and even more so for the UK, with the changes observed due to the UK's exit from the EU being compounded by volatility from the Covid-19 pandemic and its aftermath.

Whilst UK and Welsh trade have recovered to pre-pandemic levels, the OBR has noted that the recovery for the UK has been at a slower rate than other G7 countries.

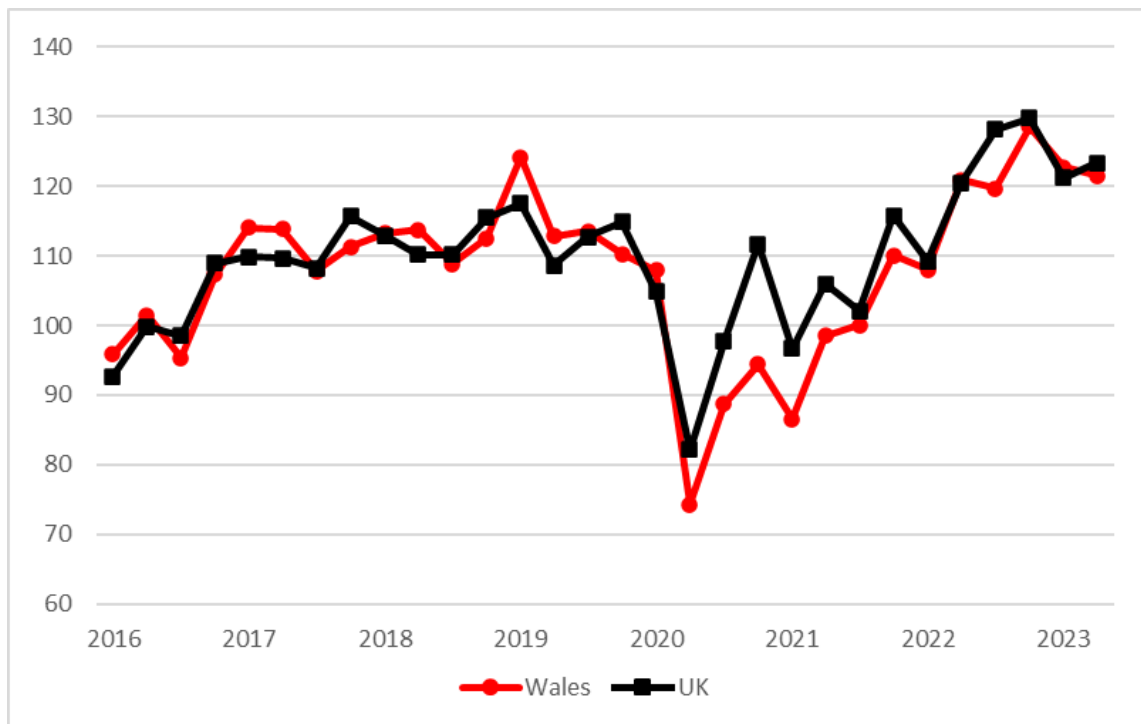
The OBR continues to expect that leaving the EU will reduce the UK's trade intensity (exports plus imports as a share of GDP) by 15 per cent in the long term. The OBR noted that, as of 2023, UK trade intensity remains 1.7 per cent below its 2019 level, versus an average increase of 1.9 per cent across other G7 economies.

The relative weakness in UK trade since the pandemic appears to be explained entirely by goods trade, as UK services trade has grown at a similar rate to other G7 countries. This may suggest that Brexit frictions and post-pandemic disruptions have weighed more on trade in goods than on services.

The latest data, shown in Chart 5, indicates that the trend in Welsh goods export performance since around the time of the referendum has been very similar to that for the UK as a whole. Despite exceeding pre-pandemic levels of goods trade, both have experienced a recovery in trade that is weak in the international context. As with the UK as a whole, it is likely that Brexit is playing a role here.

³ Limited sample sizes in Wales mean that for some disadvantaged groups conclusions are inferred from UK level data.

Chart 5: Wales and UK, value of total goods exports, excl. petroleum and related products (2016=100)



Source: Welsh Government

Note: Petroleum and related products are excluded as exports are volatile.

It is important also to consider other global economic events, particularly the conflict in Ukraine, and how these are affecting the value of trade, especially with inflationary pressures pushing up the price of products.

This effect on the value of exports presents challenges in interpreting Welsh trade performance. Trade data suggests the observed recovery in the value of trade in 2022 was at least partly driven by inflationary pressures, affecting the value rather than volume of trade. Latest data for the first half of 2023 presents a potential shift, with the value of goods trade falling despite the volume of trade continuing to grow. This suggests that fluctuations in the prices of goods may be continuing to distort the overall picture for Welsh trade.

The EU continues to be an important market for Welsh goods exports, with the majority (58 per cent) of Welsh goods exports heading there according to latest data.⁴ However, this importance has decreased slightly over recent years from 61 per cent in 2019.

This shift away from the EU market for Wales is not unexpected given the change in trading terms with the EU following the end of the transition period. The restructuring of supply chains, coupled with the increasing focus towards non-EU markets, particularly as the UK Government secures trade deals with countries

⁴ Year ending Q2, 2023.

including Australia and New Zealand (with many more in negotiation), could partly explain this, however more data is needed before conclusions can be drawn.

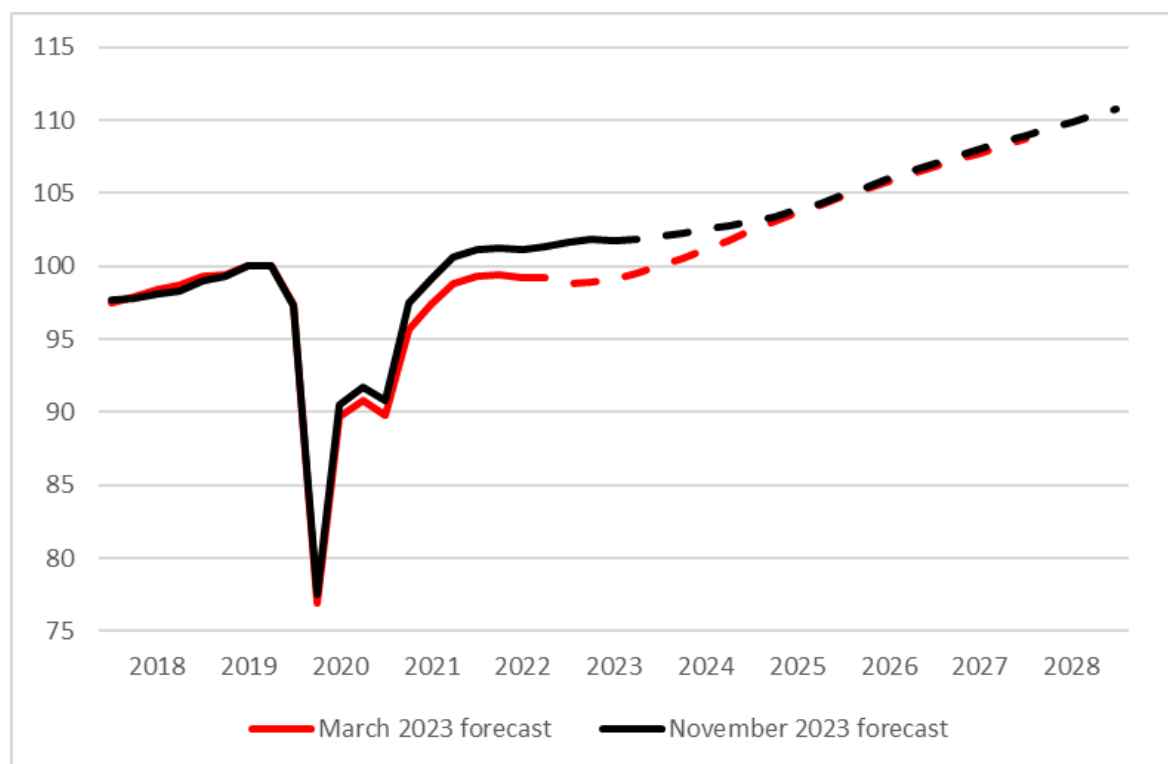
Shorter term economic prospects

UK prospects

As already noted, Wales is deeply embedded in the wider UK economy and Welsh economic prospects are heavily dependent on expectations for the UK.

In its latest Economic and Fiscal Outlook, published on 22 November, the Office for Budget Responsibility (OBR) notes that although inflation has fallen sharply from its peak, it is expected to stay higher for longer than previously anticipated. Higher inflation is expected to result in the squeeze on real incomes continuing. This, along with interest rates staying at an elevated level, and the unwinding of UK government support introduced during the pandemic, are expected to weigh on consumption and investment. In consequence, the OBR expects real GDP growth to slow from 4.3 per cent in 2022 (reflecting the recovery from the pandemic) to 0.6 per cent this year, and 0.7 per cent next year (see Chart 6).

Chart 6: Real UK GDP outturn and OBR forecasts (Q4 2019=100)



Source: ONS, OBR

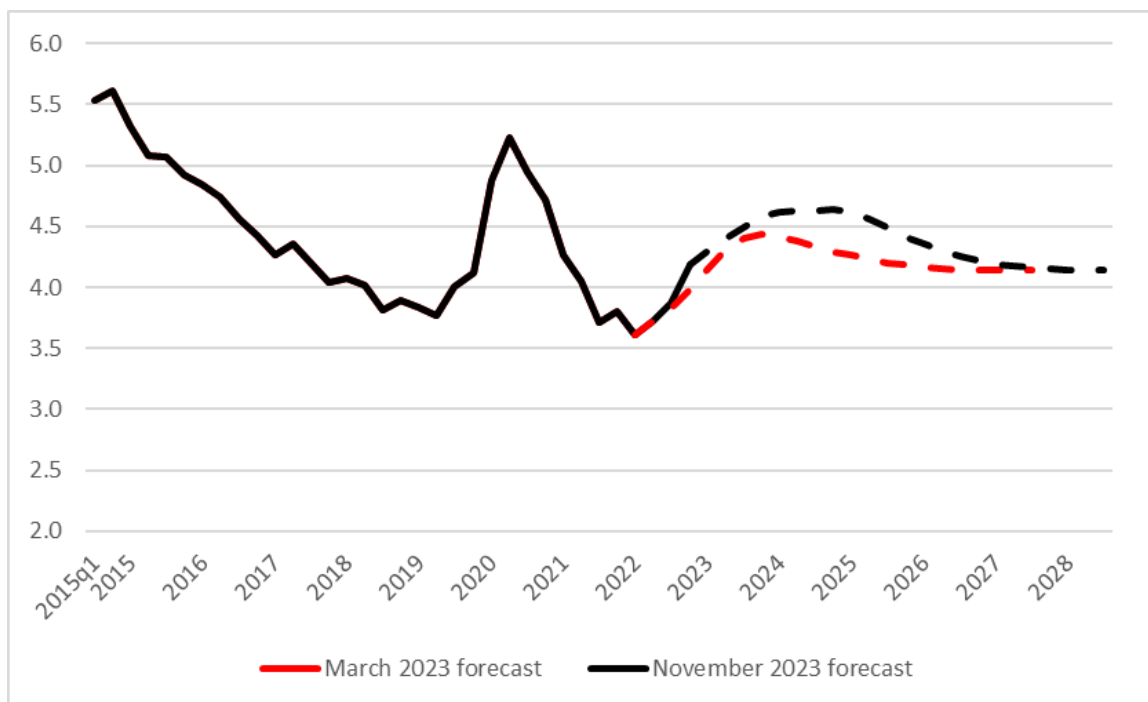
The OBR forecast that growth will pick up to 1.4 per cent in 2025, and an average of 1.9 per cent between 2026 and 2028, as the squeeze on real wages eases and interest rates fall back. Cumulative real growth from 2023 to 2027 is 2.4 percentage points lower than in the previous forecast in March. However, as ONS data revisions have increased the outturn GDP figures for previous years, this slower growth is

from a higher base, resulting in levels of GDP for 2026 onwards that are similar to those previously forecast.

In summary, the forecast is again one in which growth prospects are lacklustre at best - and would be even worse if expressed on a per-head basis. Even so, the OBR's expectation for growth is less pessimistic than the most recent forecast from the Bank of England.

As shown in Chart 7, the OBR expects unemployment rises to around 4.6 per cent of the labour force in the second quarter of 2025. This peak in unemployment is higher, and a year later, than expected in March. Unemployment is then projected to fall back to its assumed structural (or "underlying long-term") rate of 4.1 per cent by 2028.

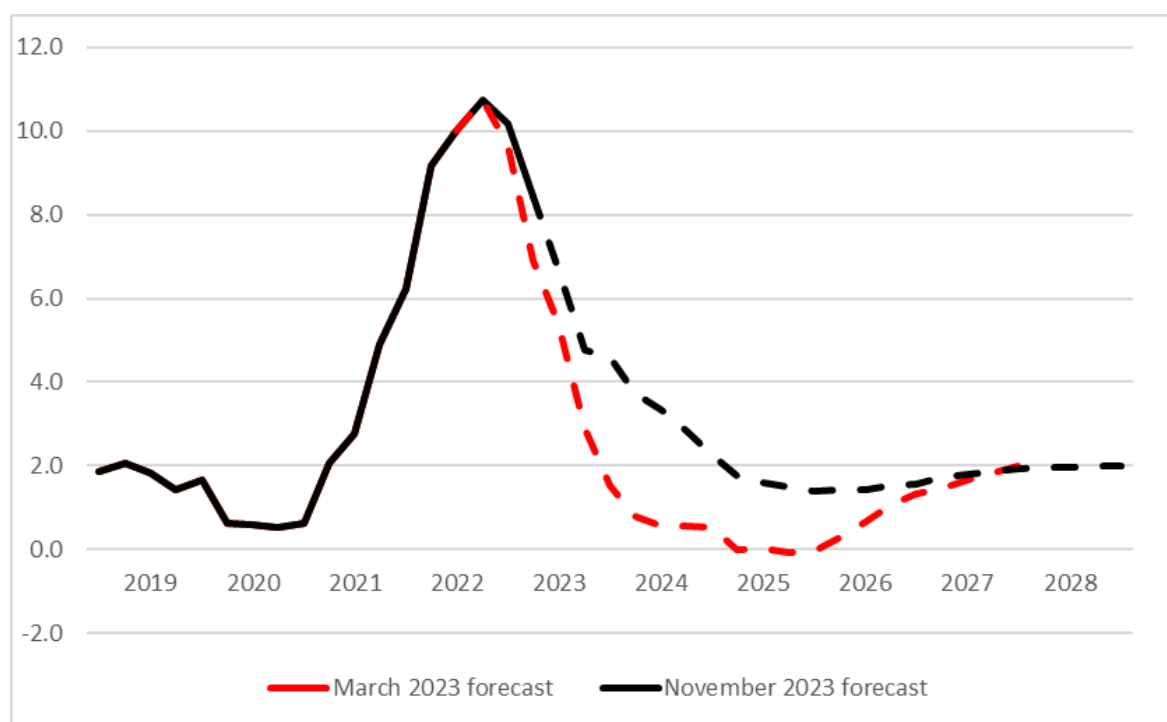
Chart 7: Unemployment rate outturn and OBR forecast (UK)



Source: ONS, OBR

The OBR expects inflation to remain higher for longer than previously expected taking until the second quarter of 2025 to return to the 2 per cent target. This is shown in Chart 8.

Chart 8: CPI inflation outturn and OBR near-term forecast (UK)



Source: ONS, OBR

The OBR expects strong nominal wage growth to more than offset the expected decline in gas prices. From a peak of 10.7 per cent in the last quarter of last year, CPI inflation is now expected to fall to 4.8 per cent in the final quarter of 2023. As a moderate degree of spare capacity in the economy opens up and gas prices fall further, inflation dips slightly below the 2 per cent target between 2025 and 2027, before returning to it in 2028.

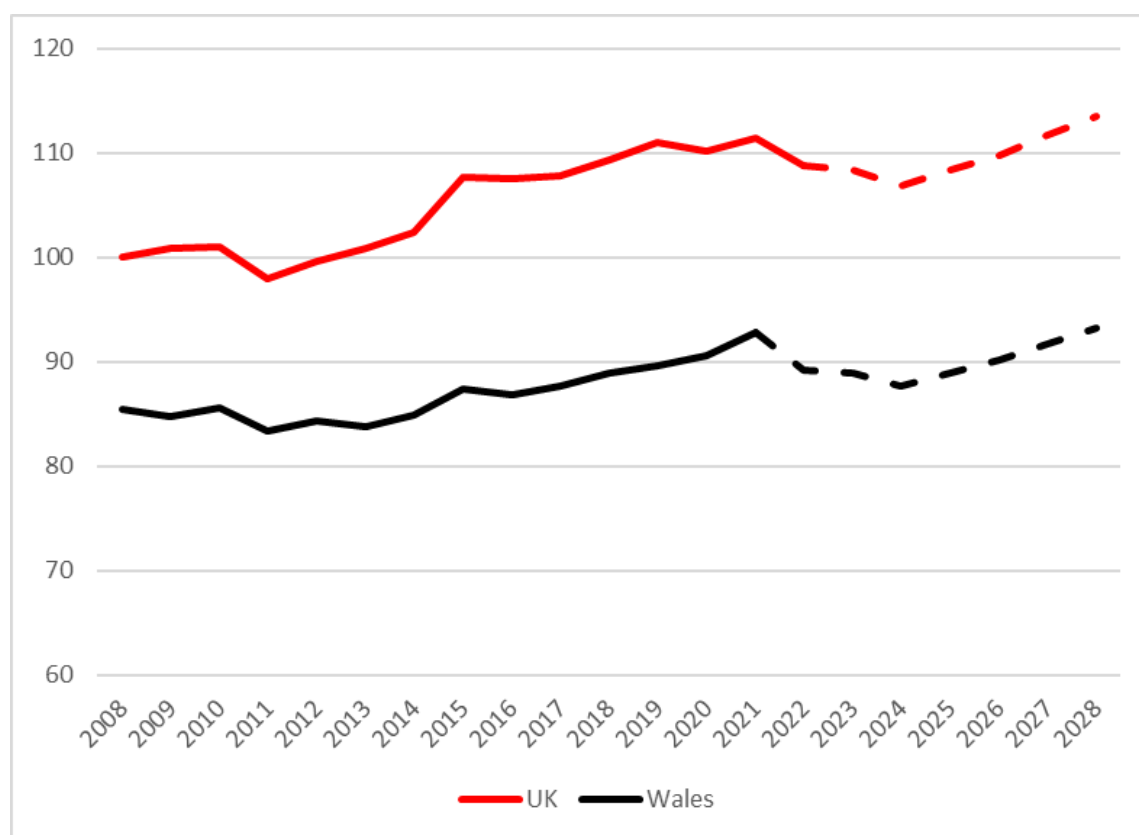
The OBR forecasts that living standards, as measured by real household disposable income (RHDI) per person, will be 3.5 per cent lower in 2024-25 than their pre-pandemic level. Principal factors are the impact of inflation and tax increases. While this is half the peak-to-trough fall the OBR expected in March, it still represents the largest reduction in real living standards since ONS records began in the 1950s. RHDI per person recovers its pre-pandemic level in 2027-28

Welsh prospects

In general, the OBR's assessment of near-term prospects for the UK is also applicable to Wales.

Chart 9 shows outturn and projections of UK and Welsh living standards, as measured by average (mean) real income per head. The projection for Wales should be regarded as illustrative because it assumes that the historic relationship between incomes in Wales and the UK continue into the future.

Chart 9: Average income per head, UK and Wales: outturn and projection UK 2008= 100



Source: OBR, Welsh Government calculations

Note: Measure is average (mean) real disposable household income per head.

Following a sharp fall in 2022, average incomes in Wales are projected to fall in both 2023 and 2024. In 2024 average incomes are projected to be over two percent below the pre-pandemic level in 2019. A small recovery in 2025-26 is projected to still leave incomes below their pre-pandemic level. The pre-pandemic level is projected to be recovered only in 2026-27. This would represent seven years of lost growth in incomes and follows a long period during which real incomes have grown only very sluggishly in historic terms (the long run trend is discussed further below.)

The projected reduction in real incomes is unprecedented, and much worse than experienced in the years following the financial crisis in 2008. Given lower income levels in Wales, an incidence of poverty that is higher than in some other parts of the UK, and houses which are on average less energy efficient, it is almost certain that people in Wales will be particularly badly affected.

The cessation of cost-of-living payments will have an additional detrimental impact on the living standards of poorer households in Wales.

Pressure on people's incomes will result in lower spending, with additional adverse effects on the pace of the recovery and on local employment in areas with large numbers of people on low incomes.

Welsh longer-term economic trends

Trends in Welsh living standards

This section reviews longer term trends in living standards in Wales, comparing Wales with the rest of the UK and beyond.

Background

As this report considers mainly economy developments and prospects, the focus is on material living standards as measured by household income. But as the cost-of-living crisis and the pandemic has of course again emphasised, other aspects of well-being are crucially important, with some indicators of mental well-being, for example, showing marked deterioration at various stages of the pandemic.

The Welsh Government's annual Well-being of Wales Report⁵ reviews recent trends as they have affected well-being in Wales more holistically, as required by the Future Generations Act, and 2021's Future Trends Report⁶ provides an updated assessment of the implications of the long run trends facing Wales. This broader perspective is therefore not duplicated in the present report which has a more specific focus.

Information on household incomes in Wales is available from two sources. One is the Family Resources Survey (FRS), which provides key results for both mean and median household income and for poverty levels.

In the past, the FRS sample size for Wales has been small, meaning that data needs to be averaged across several years (hence producing results that are not timely) and that detailed analysis is often precluded. The Welsh Government has therefore funded a boost to the FRS in Wales in order to improve our ability to analyse changes in living standards in Wales, and particularly to assess how such changes affect various population groups, including those with low levels of income.

The other source of information on income is the ONS Regional Accounts, which provides results for average (mean) household income. The Regional Accounts data includes some income which is "notional" rather than actual, most importantly the value of housing services deemed to be received by owner occupiers.

As the 2020 report demonstrated,⁷ there is typically far more variation in living standards within areas than between them, with incomes being most strongly influenced by individual and household characteristics, and particularly by levels of qualification and health status.

⁵ [Wellbeing of Wales: 2023 | GOV.WALES](#)

⁶ [Future Trends, National Indicators and National Milestones: Consolidated plan for 2021 \[HTML\] | GOV.WALES](#)

⁷ [chief-economists-report-2020.pdf \(gov.wales\)](#)

For example, in Wales people in the tenth of the population with the highest incomes have average income levels that are around six times higher than the tenth of the population with the lowest incomes. By contrast, the average income in the local authority in Wales with the highest level of income is only around 50 per cent higher than in the local authority with the lowest level of income.

These considerations point to the critical importance of the wider UK tax and benefits system in mitigating variation in living standards, and hence to the important consequences of policy choices made by the UK government in these areas.

The level of redistribution under the UK tax and benefits system directly affects people's incomes, but there are also indirect effects on the level of local economic output as a result of the impact on consumer spending.

Trend in average incomes

When a comparison is made between Wales and the UK based on measures of people's average incomes, the gap is considerably smaller than when a comparison is based on GDP or GVA per head. The gap is narrower in large part due to the large transfers made through the UK fiscal system. It is also narrower because net out-commuting from Wales results in Welsh people earning incomes from economic activity that does not take place within Wales.

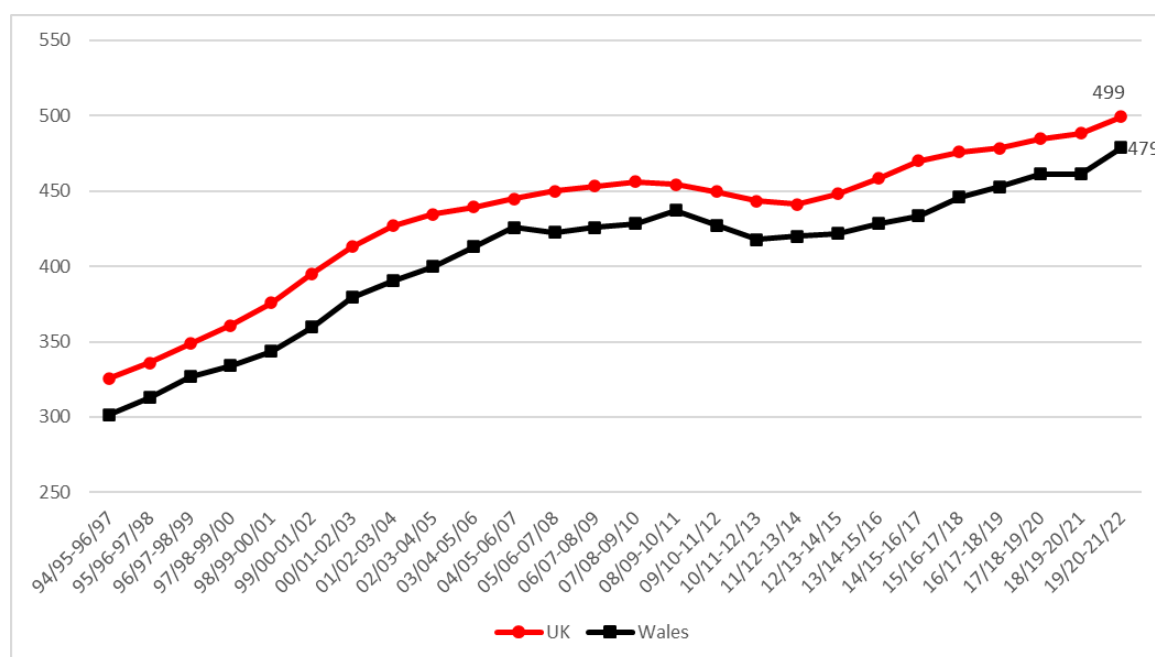
Average incomes can be measured using either the median or the mean. *Median* household income is defined as the income of the household that, when households are ranked by income, is in the centre of the distribution. It can therefore be regarded as reflecting the income of a "typical" household and is widely seen as the most representative single measure of material living standards.

Chart 10 shows longer run trends in median household income for Wales and the UK in real terms, mainly covering the period prior to the Covid pandemic.⁸ Despite annual variation, the trends for Wales and UK are strongly associated, as would be expected given the largely common economic and fiscal context. The data in the chart shows that, over the whole period, median incomes in both Wales and UK have grown by around 1.8 per cent per year, after allowing for inflation. However, this obscures a sharp change in trend.

Growth in real incomes slowed markedly from around the time of the financial crisis in 2008. From this point on average growth in incomes was under one per cent each year. Prior to this, the rate of growth was higher – at well over two per cent per year over the previous decade. If incomes had continued to grow at the rate experienced prior to the financial crisis, real incomes – and living standards – would now be well over 20 per cent higher than their actual level.

⁸ The pandemic impacted on the size and composition of the underlying survey sample in 2020-21, so DWP recommend that users exercise additional caution when interpreting changes observed in this period.

Chart 10: Median household income (£ per week, 2019-20 prices)



Source: Family Resources Survey

*GB for the years prior to 2002-03

Notes: Data is equivalised to ensure results reflect similar household composition and shown after housing costs.

The prolonged period of slow growth in incomes and living standards over the period since the financial crisis is unprecedented in modern times, and largely reflects slow growth in productivity, the ultimate driver of living standards.⁹

While Chart 10 shows that trends in median incomes in Wales and the UK are broadly similar, Wales has nevertheless converged somewhat with the UK since the mid-1990s. Median Welsh household income in the most recent period was around four per cent below that for the UK as whole, with the gap for Wales smaller than for several English regions.¹⁰ In the mid 1990's the gap was around seven per cent.

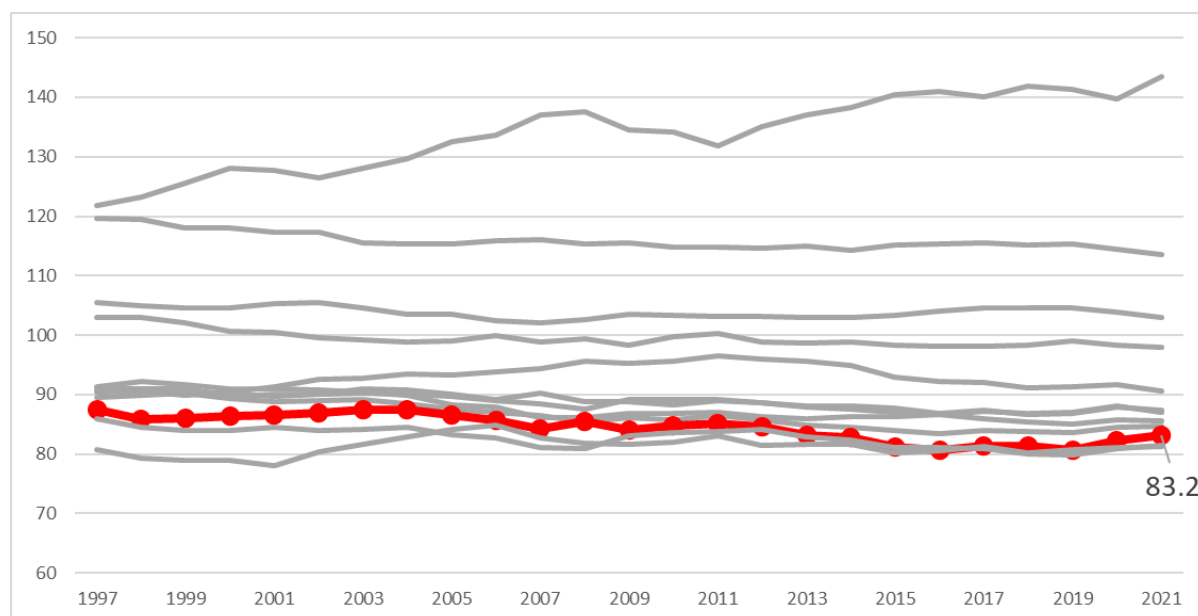
The alternative source of information on household incomes in Wales, the ONS Regional Accounts, shows a larger gap between incomes in Wales and the UK. The income measure used is Gross Domestic Household Income (GDHI). This is a measure of *mean*, rather than median, income.

Chart 11 shows GDHI per head in Wales and other UK countries and regions, compared to the UK.

⁹ The underlying weakness of productivity growth over the most recent years is somewhat masked in the chart as the growth in incomes has been partly driven by a recovery in employment rates, something which obviously has only finite potential.

¹⁰ While this figure adjusts for differences in housing costs, it does not take account of other differences in the cost of living. Previous analysis by the ONS suggests that if such differences were considered, it might reduce the gap by up to around 2 percentage points.

Chart 11: Gross Domestic Household Income, UK =100



Source: ONS

The much larger gap between Wales and the UK when the comparison is made based on measures of mean rather than median income reflects in part the relatively small share of the population with high incomes in Wales. This small share is, of course, reflected in the calculation of the mean but not of the median income.

For the most recent available period, 2021, GDHI per head in Wales was the third lowest amongst UK countries and regions, but a little higher than the North-east of England and Northern Ireland. GDHI per head in Wales was 83.2 per cent of the figure for the UK – or, in other words, 16.7 per cent below the UK.

The data in Chart 11 indicates that, in contrast to the measure of median household income, the gap between Wales and UK on GDHI has widened over the longer term,¹¹ albeit with some recovery over the last few years.

Examination of the underlying data indicates that two factors appear to have been important in explaining the longer run divergence in trends between Welsh relative median household income and Welsh relative GDHI. The first is the distribution of the growth of pay, with faster growth in pay for those who are already highly paid in other parts of the UK. The second is slower growth in rental income in Wales. Both of these are reflected in GDHI but not in median income. This issue was explored more fully in the 2021 Chief Economist's report.¹²

Welsh living standards – an international comparison

Comparing Welsh living standards, as reflected in household income, with other similar sized countries and regions provides useful insights. Table 1 presents data

¹¹ A measure of mean income is also available from the FRS, alongside the measure of median income. The gap with the UK shown on this measure is quite volatile, but with little sign of any trend closing of the gap.

¹² [Welsh Budget 2021: Chief Economist's report | GOV.WALES](#)

from the OECD, showing household income per head at purchasing power parity.¹³ The table shows Wales and the regions identified as its closest peers when ranked by income levels.¹⁴ The table shows that average living standards in Wales, as reflected by household income, were similar to those in a number of other regions in Western Europe, and very similar to (in fact slightly above) those in the Republic of Ireland.

Table 1: Household income per head: Wales = 100, 2018-19

Denmark: Zealand	101.0
UK: Northern Ireland	100.8
Spain: Balearic Islands	100.2
Finland: Eastern and North	100.2
France: Hauts-de-France	100.2
Wales	100.0
Ireland	99.9
Netherlands: Flevoland	99.9
Spain: Cantabria	99.7
Netherlands: Friesland	99.7
Denmark: Central Jutland	99.4

Source: OECD

Note: Data is volatile from year to year and is averaged for the two most recent pre-pandemic years. Data is available for 2020 but will be influenced by the impacts of the pandemic and associated government responses.

This result may be surprising, given Ireland's strong performance on GDP-based indicators. However, such indicators are widely recognised to be particularly misleading in the case of Ireland, partly because they reflect profits recorded in Ireland rather than incomes received by Irish residents.

Disposable income does not take account of government services provided in kind, such as health services in the UK. Eurostat and the OECD recommend that international comparisons should be made based on Actual Individual Consumption (AIC), which does take account of such services. However, AIC is not available for Wales or at the regional level for other countries. Results at the state level indicate that UK tends to perform more favourably when compared on AIC than on disposable income, and the same would almost certainly therefore be true for Wales.¹⁵

¹³ Comparisons at purchasing power parity take account of differences in the cost of living.

¹⁴ Ireland is included as a single country rather than on the basis of its two regions.

¹⁵ The ONS most recent comparison of UK living standards on the basis of AIC was for the year 2020: [Actual individual consumption per head in the UK - Office for National Statistics](#)

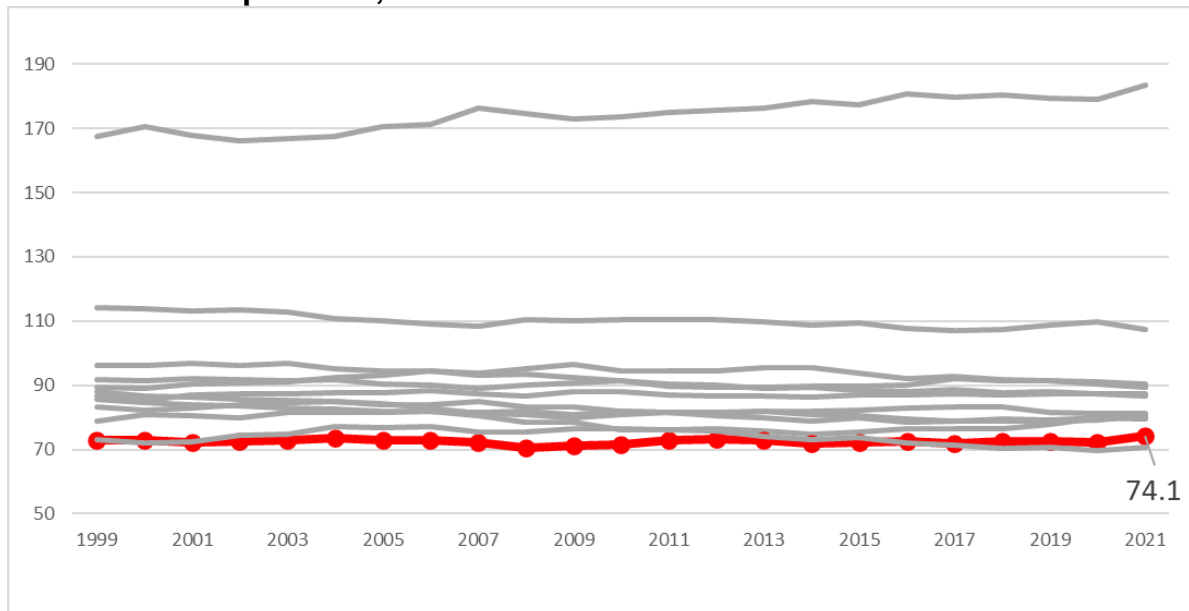
Trends in Welsh economic output

Gross domestic product

Despite its well-known limitations as a measure of living standards, and still more as a measure of well-being, gross domestic product (GDP) and its near-equivalent gross value added (GVA)¹⁶ remain important as key indicators of the underlying strength of the economy in Wales and therefore also of the tax base. The key driver of GDP and GVA over the long run is productivity growth, and it is this which in turn supports higher pay, higher tax revenues and higher overall living standards. Welsh productivity performance is discussed further below.

Welsh relative performance on GVA per head in comparison with other UK countries and regions is shown in Chart 12.

Chart 12: GVA per head, UK = 100



Source: ONS

The most recent data for GVA is for 2021, when GVA per head in Wales was 74.1 per cent of the figure for the UK as whole - the second lowest of all UK countries and regions. These figures are based on population data which is subject to revision so should be treated with caution.

Over the last few years, GVA per head in Wales has risen above that in the North-east of England, a reversal of the previous position, when Wales had for many years the lowest GVA per head of all UK countries and regions.

Welsh performance on GVA per head is negatively affected by the presence of net out-commuting (which does not contribute to Welsh GDP but does contribute to

¹⁶ GDP differs from GVA only through the inclusion of certain taxes and subsidies. Welsh relative performance levels and trends for GDP and GVA are very similar, and the concepts can be regarded as interchangeable for current purposes.

Welsh incomes) and by the age structure of the population, with a relatively high share of older people who are less likely to be in work.

London's performance on GVA is a clear outlier, reflecting in part the effect of in-commuting, which adds to London's GVA but not its population. London has improved its relative position over the last twenty years, and as an arithmetic consequence, the relative position of most other UK countries and regions has worsened.

However, Wales's performance on GVA per head relative to the UK shows little trend in recent years, though it remains somewhat lower than in the period up to the financial crisis of 2008.

Spatial variation across Wales

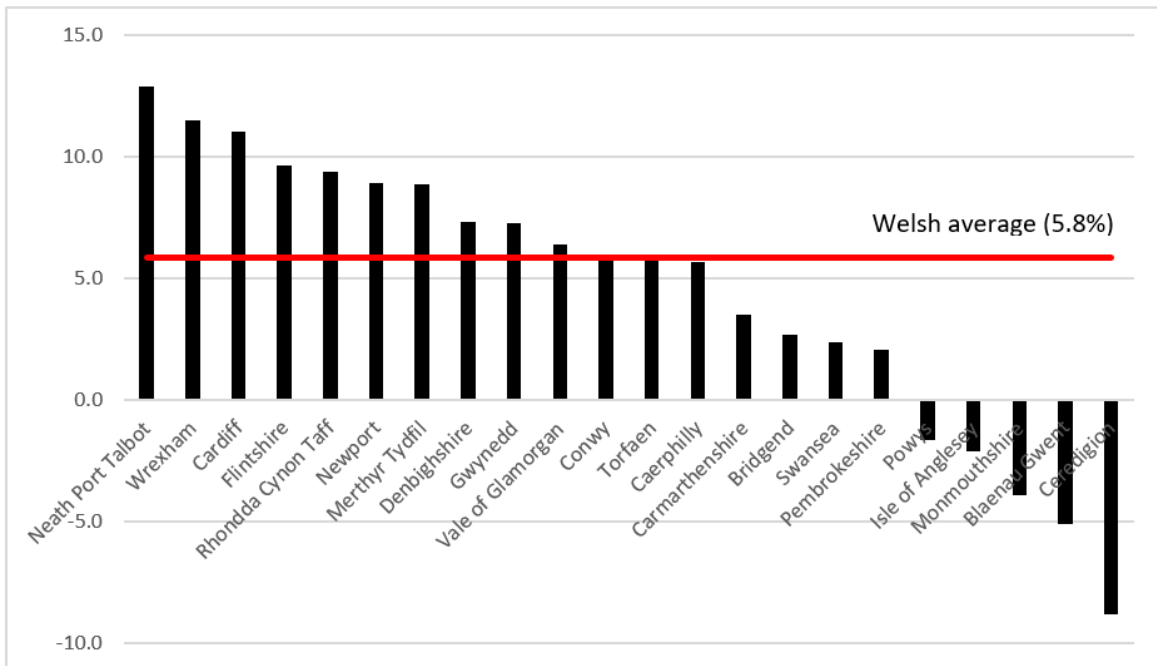
Particular caution is needed in interpreting GDP/GVA per head at the local level, as the figures are heavily influenced the local context and particularly by commuting patterns. Some areas, particularly in the more rural parts of Wales, which have below average GVA per head have incomes levels that are above average.

Income levels and living standards of course vary across Wales. However, as noted above, and described more fully in the reports for 2021 and 2022, the difference in incomes between people and households is much greater than the difference across areas. Furthermore, there is no evidence that spatial variation in incomes within Wales has increased over time.

Local economies can grow more quickly or more slowly without this necessarily translating into effects on the income level of the average resident, as the growth can be reflected in changes in commuting and/or migration.

The differential economic growth of Welsh local authority areas is illustrated by the data in Chart 13, which shows changes in the number of jobs in each local authority area.

Chart 13: Change in total employment 2009-10 to 2020-21¹⁷ by Welsh local authority area (%)



Source: Business Register and Employment Survey

While the data in Chart 13 shows in general growth in jobs has been greater in many more urban areas, beyond this there is no clear geographical pattern across Wales.

¹⁷ These are two-year averages, not financial years.

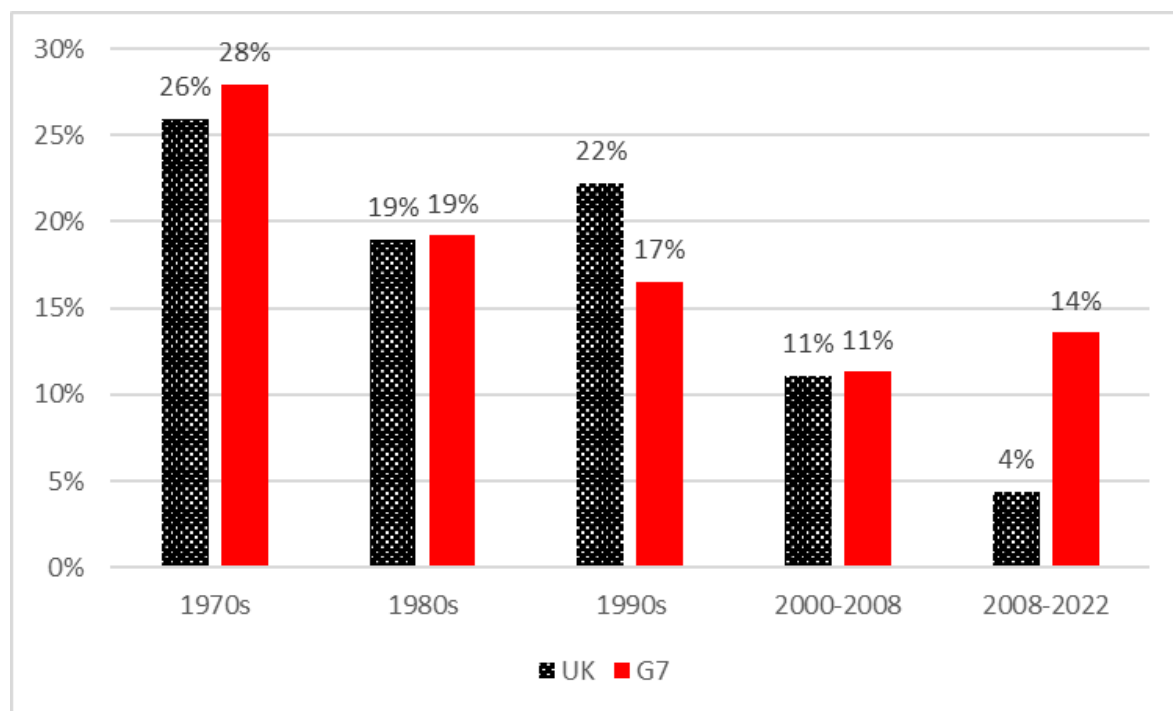
Longer term economic challenges and opportunities facing Wales

UK context

Recent UK Governments have placed much emphasis on the need to improve the underlying growth performance of the UK economy, albeit with little success. The distribution of income has been accorded less priority, other than in respect of a stated concern over the need to “level up” the performance of lagging regions.

As described above, the UK economy has performed comparatively poorly since around the time of the financial crisis. Chart 14 takes a longer-term perspective and shows how growth in the UK’s productivity, the fundamental driver of sustainable increases in living standards, compares with the G7 group of major economies over the decades since the 1970s.

Chart 14: Labour productivity (output per hour worked), growth (%)

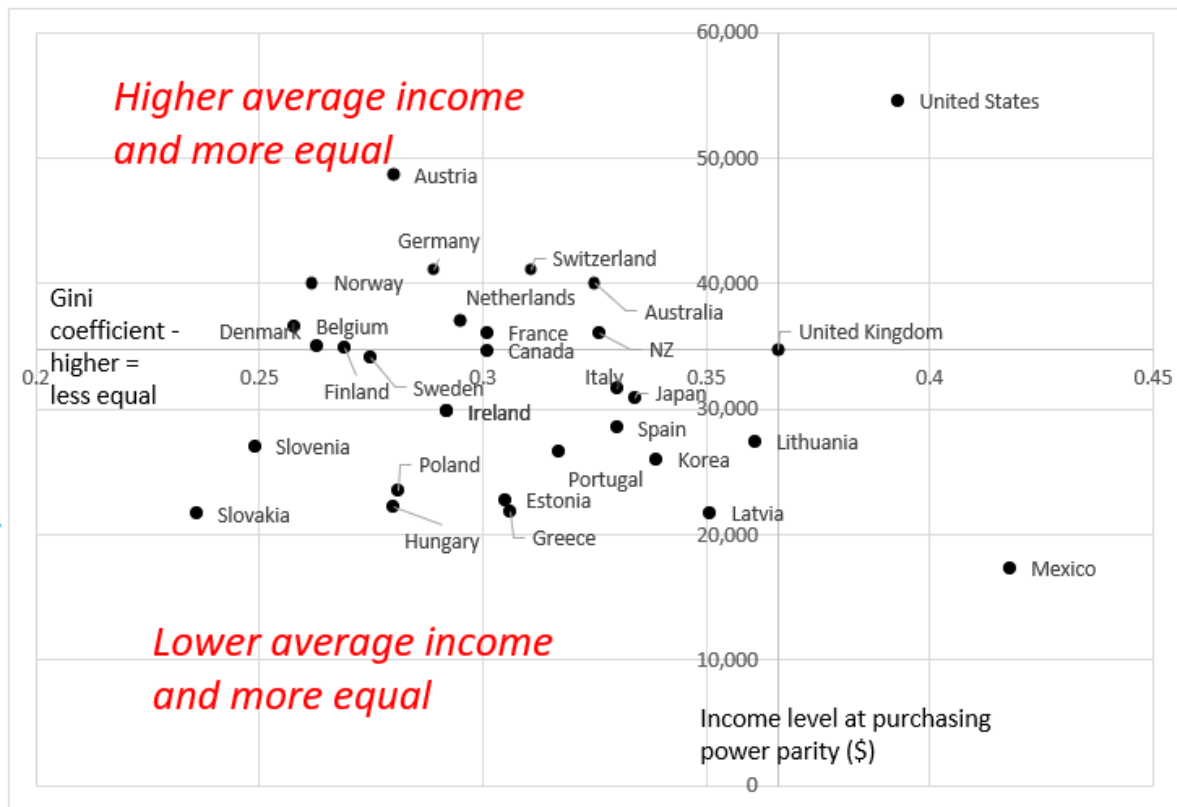


Source: OECD

Chart 14 shows that labour productivity growth in the UK lagged the G7 in the 1970s, kept parity in the 1980s and was considerably stronger in the 1990s. After 2000, in the years prior to the financial crisis the UK again kept parity. In the subsequent years the UK has very severely underperformed. Improving the UK’s productivity performance is key to increasing average living standards across the UK, including Wales.

It is sometimes claimed that policies to increase productivity would require an acceptance of greater inequality. However, international comparisons show scope for UK to be *both* more affluent and more equal (see Chart 15).

Chart 15: Average income and inequality by country, 2019



Source: OECD

The chart shows that only two major OECD countries, the USA and Mexico, have a more unequal distribution of income than the UK. While the USA does have a higher level of average income than the UK, many other developed countries have managed both to grow more than the UK, resulting in a higher level of average income, and are more equal.

Analysis by the OECD suggests that the key factors in the UK's poor performance on income inequality are that:

- market incomes (incomes before taxes and benefits) are highly unequal.
- the level of cash redistribution in the UK is relatively low.¹⁸

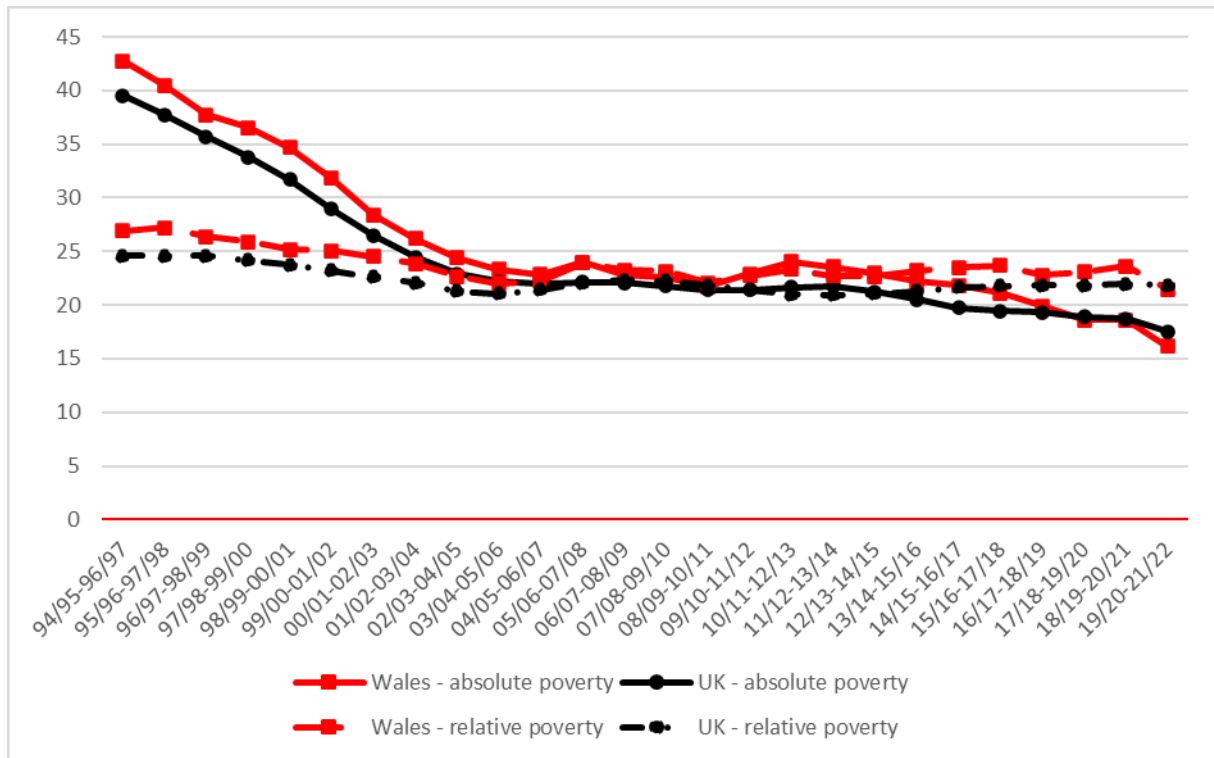
Nevertheless, and as previously noted, redistribution under the UK fiscal system is the key reason why the gap between Wales and the UK is much smaller when the comparison is made based on household incomes than when it is based on GDP/GVA per head. This redistribution is reflected in Wales's large negative fiscal balance (see below).

The policy of the UK Government towards income redistribution is therefore a crucial factor influencing Welsh relative living standards, inequality, and relative poverty.

¹⁸ See for example: [Income redistribution | Government at a Glance 2021 | OECD iLibrary \(oecd-ilibrary.org\)](#)

While, in the absence of active policy, economic growth does not necessarily reduce relative poverty, growth does generally reduce absolute poverty.¹⁹ Chart 16 shows the trends in relative and absolute poverty for Wales and the UK.

Chart 16: Relative and absolute poverty, UK, and Wales (after housing costs), percentage of population (three-year averages)



Source: DWP

In broad terms, the chart shows that there was a modest decline in relative poverty for both Wales and UK over the period from the mid-1990s until around the time of the financial crisis. Since then, relative poverty has been broadly stable. In contrast, absolute poverty fell very sharply over the former period, when economic growth was relatively rapid. While absolute poverty has fallen again over recent years, this latter reduction is much more modest and likely reflects a growth in employment rates over the period prior to the pandemic (and perhaps pandemic related income support during the pandemic years).

Persistent and substantial falls in absolute poverty depend upon sustainable economic growth.

¹⁹ Relative poverty is defined as the share of the population with an income level that is below sixty per cent of the median. Absolute poverty is defined as the share of the population with an income level below a threshold fixed in real terms – here 60 per cent of 2010-11 median income held constant in real terms.

Disadvantage in the labour market

While the latest data has shown some signs of weakness, the longer run trends for employment in Wales have been positive. As previously noted, the gap in employment rates between Wales and the UK, driven by inactivity more than unemployment, have closed markedly since the period before devolution. In the 1990s the gap was typically five to six percentage points. In recent years the gap has generally been closer to two percent, with unemployment in Wales similar to, and sometimes below, that for the UK during much of the recent past.

It is to be hoped that recent weakness in the labour market, and particularly the increases in inactivity, in both Wales and the UK, are a temporary consequence of recent economic circumstances.

However, the longer-term adverse effects of EU exit identified by the OBR are likely to be felt particularly in Wales, with its' higher-than-average dependence on manufacturing and exposure to EU markets. Previous analysis by the IFS²⁰ indicated that, within Wales it is – unsurprisingly - those areas that are most dependent on manufacturing that are at greatest risk.

Despite the longer run improvement in the headline employment rate in Wales, as across the rest of the UK, employment rates remain low for disadvantaged groups, particularly those with low levels of qualification, disabled people, people with longer ill health, and certain minority groups. There are also concerns about the consequences for future labour market outcomes facing young people that may result from the disruption to their education that occurred during the pandemic. By their nature, these potential scars may take a long time to appear in lower incomes and employment. The risk is that this will result in a further widening of inequalities over the long term.

Trends in Welsh productivity growth

Productivity – the amount of output produced for each hour worked – is the main driver of living standards over the long run. Increases in real wages can only be sustained if they result from improved productivity. Productivity is also a key driver of the size of the tax base and hence of the level of resources available for funding public services.

In turn, productivity improvements are driven mainly by innovation, defined in a broad way – the development of new or better goods and services and increases in the efficiency with which goods and services are produced.²¹ In many areas, it is the speed and effectiveness of the absorption and application of innovations developed elsewhere that is crucial, rather than the process of invention.

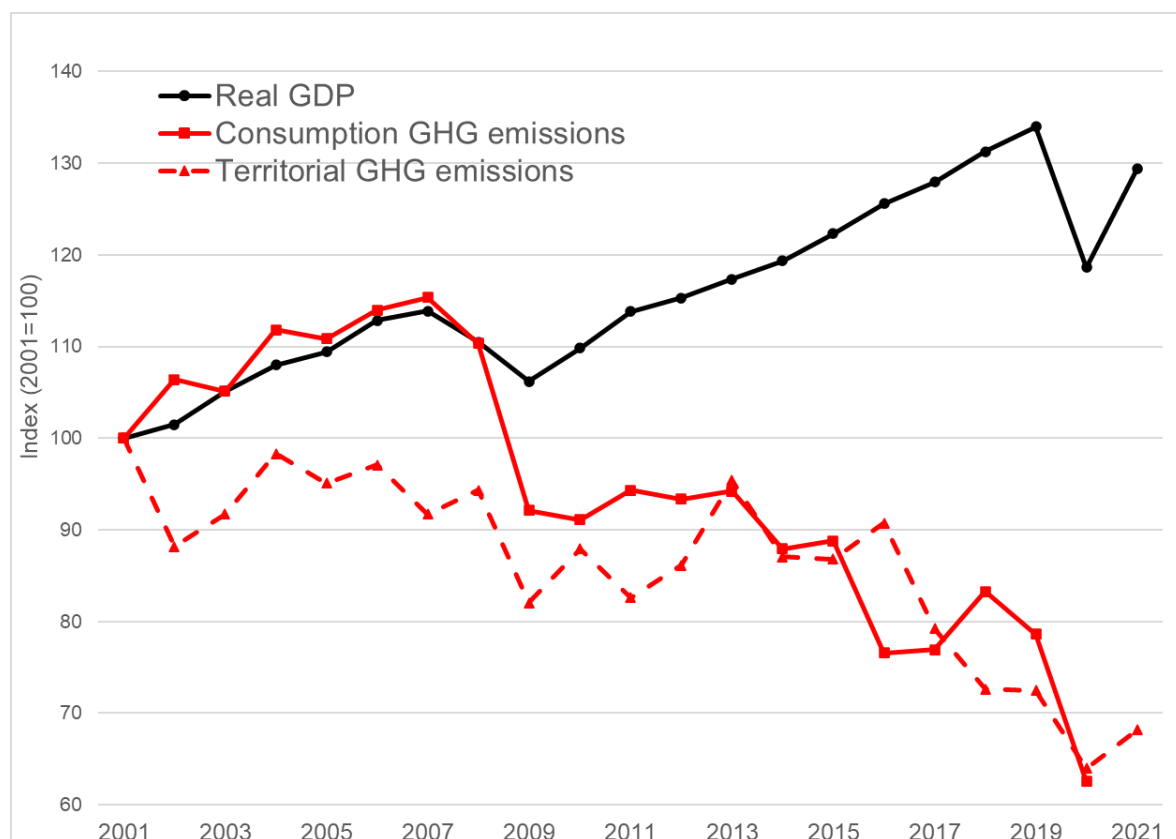
²⁰ [Brexit and labour market inequalities: potential spatial and occupational impacts - Institute For Fiscal Studies - IFS](#)

²¹ The factors driving productivity and innovation in the UK context are reviewed here [LSEGC-2017-report.pdf](#), [Stagnation nation - The Inquiry \(resolutionfoundation.org\)](#), and [Productivity-in-the-UK-Evidence-Review.pdf \(niesr.ac.uk\)](#)

In principle, increasing productivity allows higher living standards without any increase in the use of inputs or pollution, or in the consumption of natural resources. In practice the extent to which pollution occurs and nature resources are consumed will depend on the policies put in place to limit such effects.

Evidence from recent decades suggests that, at least in one crucial dimension, Wales (in common with the UK as a whole and many other developed countries) has been able to combine growth in the level of output (GDP), albeit at a historically lacklustre rate, with a large reduction in greenhouse gas emissions. This is true both when emissions are considered on the basis of production that takes place in Wales or on the basis of the consumption of Welsh residents (which includes greenhouse gases embodied in imported goods). See Chart 17.

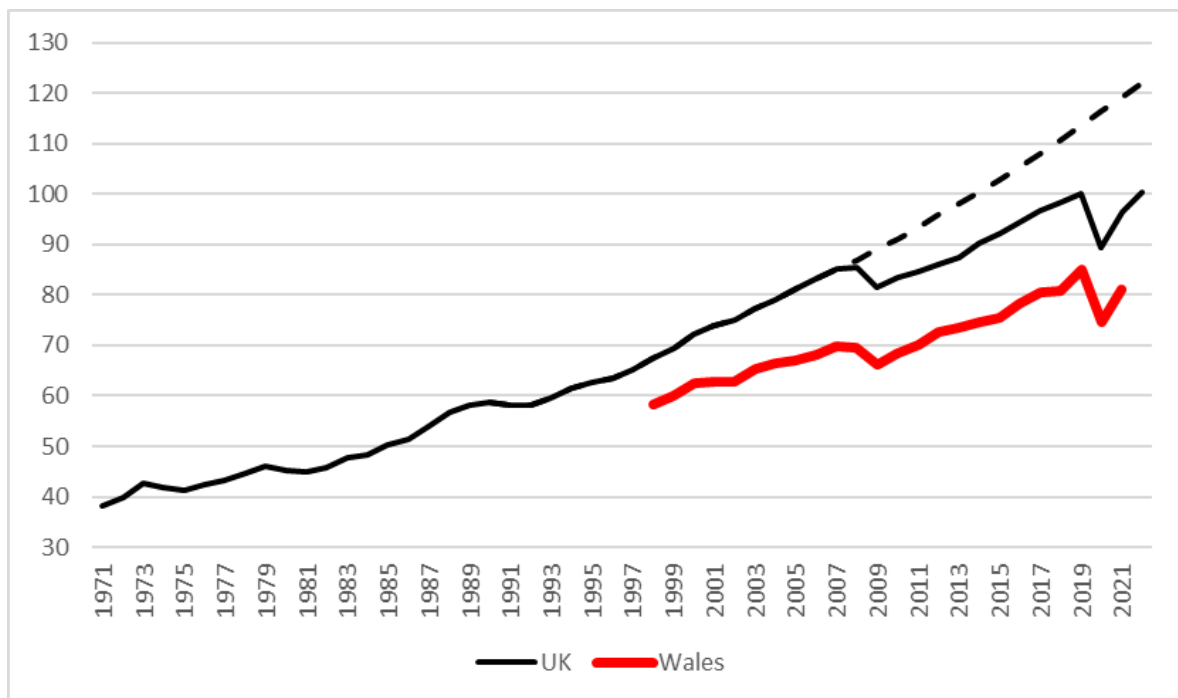
Chart 17: Trends in Welsh GDP and Greenhouse Gas (GHG) Emissions (2000=100)



Source: Welsh Government

Prior to the financial crisis of 2008, productivity across the UK, including Wales, grew by a little over two per cent each year on average. Since then, the rate of productivity growth has fallen, averaging well under one per cent per year (see Chart 18).

Chart 18: Labour productivity (output per hour worked, 2019=100)



Source: ONS and Welsh Government

The rate of increase in productivity prior to the financial crisis supported a doubling of real incomes over the 40 years from the mid-1970s.

If the rate of productivity growth experienced between 1990 and 2007 had continued it could have generated average real incomes well over twenty per cent higher than currently experienced and provided the resources to support more and better public services.

The reasons for the relatively poor rate of productivity growth experienced by Wales and the UK since around 2008 are only partially understood. It is a feature that has been shared by many other developed countries, albeit generally to a lesser extent than the UK.

One potential explanation for the experience that is shared across countries is that the rate of innovation may have slowed. It may also be that many innovations in recent years may have taken the form of technologies which deliver new experiences directly to people in a way that is not fully reflected in market valuations.

Another possibility is that a range of new technologies, particularly in the field of artificial intelligence, are in the process of being adopted, but with a “penalty” that reflects transitional costs and frictions and is therefore temporary.

However, as noted above, over recent years the UK’s productivity performance has been particularly poor when compared with other developed countries. One factor that may have played a role is the low level of business investment in the UK. This long-term problem may have been exacerbated over the last decade, first by the presence of a large financial sector suffering from a “hangover” from the financial crisis, then by the imposition of stringent “austerity” measures by the UK

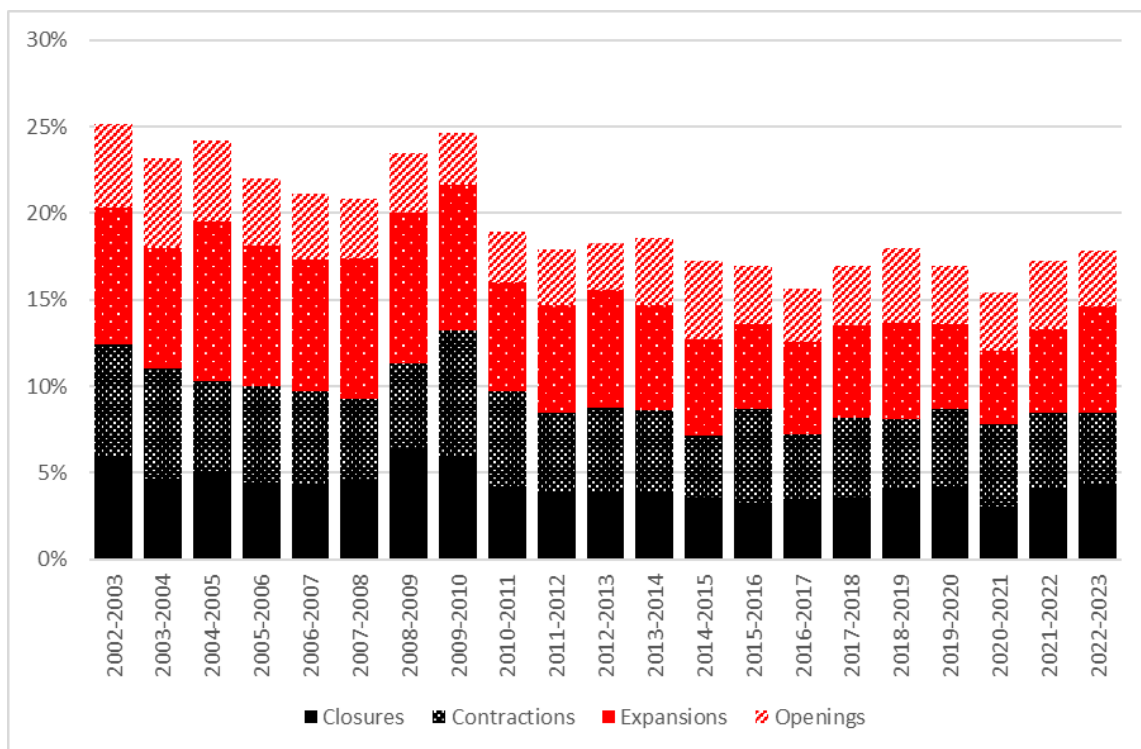
Government and finally by the uncertainty associated with both the EU referendum and the transition to a new trading relationship with the EU.

Recent announcements by the UK Government – namely the decision to permanently move to full expensing arrangements – are designed to incentivise greater business investment. However, as the OBR state, the accompanying reduction in public investment committed to more than offsets this impact and net investment is expected to be lower as a result.

Until recently, a relatively low level of research and development (R&D) in the UK had been identified as potential explanation of the UK’s weak productivity performance. However, the ONS has made very large upward revisions to its estimates of R&D spending, such that the UK now appears to have a level of spending which is close to the average for the OECD.

A further potential contribution to the slowdown in productivity growth may be a reduction in business dynamism. Sectoral change occurs through a process whereby some firms contract or close and the lost jobs are replaced by new jobs in firms that open or expand. The continuing “churn” is also a key facilitator of productivity growth as more productive firms displace less productive ones. Annual employment flow rates from the process of firms opening, expanding, contracting, and closing are shown in Chart 19.

Chart 19. Employment flow rates, Wales 2002-2023



Source: Welsh Government.

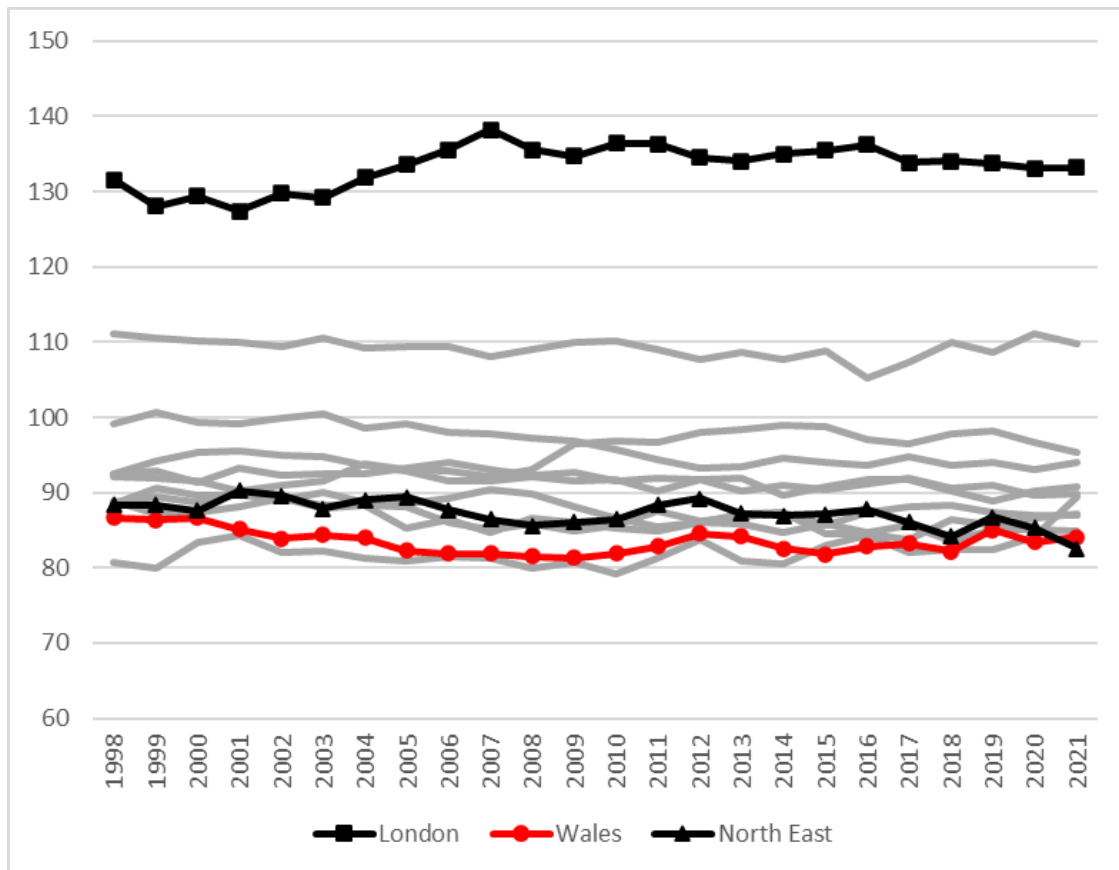
Chart 19 shows the numbers of jobs created and lost each year as a share of the total number of jobs. The data in the chart displays two critical features. First, the rate of churn appears higher than many people might expect. In the more recent years around nine percent of jobs are lost each year, with a similar number created. This is equivalent to more than 2,000 jobs being lost and created each week in

Wales. Second, the rate of churn declined markedly over the period to the middle of the 2010s. UK data shows a similar trend and research indicates this may be associated with the reduced rate of productivity growth over the period.²²

Welsh productivity levels

Not only has productivity growth been slow in recent years, *levels* of productivity in Wales are relatively low, even in the UK context: amongst UK countries and regions: in the most recent period hourly labour productivity was only lower in the North East of England (see Chart 20).

Chart 20: Labour productivity: GVA per hour worked (UK=100)



Source: ONS

In contrast to Wales's – broadly - good longer-run performance on employment, the gap in labour productivity between Wales and the UK is little changed since the time of devolution. However, the gap widened in the years prior to around 2008 but has narrowed since. Progress in the most recent few years for which data is available has been reasonably encouraging.²³

²² See for instance recent analysis by the Resolution Foundation: [Ready for change - The Inquiry \(resolutionfoundation.org\)](https://www.resolutionfoundation.org/publications/ready-for-change-the-inquiry/)

²³ Data for the most recent years should however be regarded with caution as it may have been affected by factors related to the pandemic. For example, a sharp increase in productivity for Northern Ireland appears to reflect a large, and unexplained reduction in recorded hours of work.

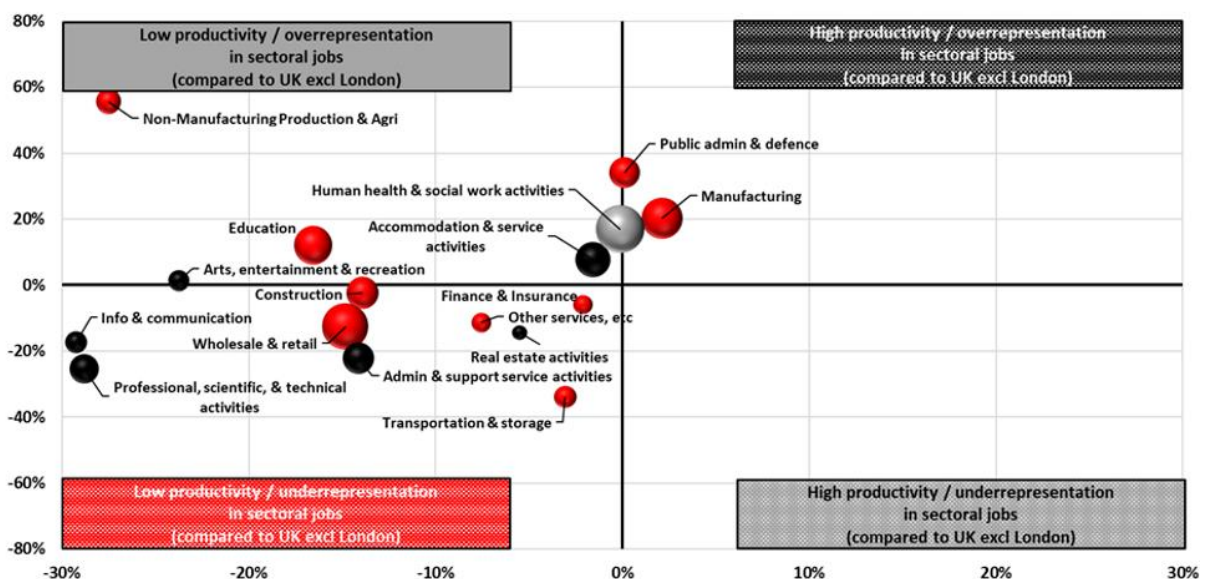
Many of the factors explaining the relatively weak Welsh labour productivity performance are reasonably well understood and have been discussed in previous reports.

First, low Welsh labour productivity levels are *not* explained by the mix of industries in Wales. Furthermore, labour productivity in manufacturing, which accounts for a larger share of the economy in Wales than the rest of the UK, compares reasonably well. Hence the deficiency lies mainly in the (much larger) service sector.

Chart 21 shows productivity in Wales by sector in comparison with the UK excluding London. The data shown is for the average of the years 2017 to 2019, as the data for subsequent years may have been subject to temporary distortion by pandemic related factors.

The chart also shows which sectors are over- and under-represented in Wales and gives an indication of the relative growth of sectors over the period between 2010 and the pre-pandemic year of 2019. For example, it can be seen that productivity is higher in the manufacturing sector in Wales than in the rest of the UK excluding London, that it is one of the larger sectors, and that the number of jobs in the sector decreased over the period shown.

Chart 21: Productivity (output per hour worked) in Wales relative to the UK excluding London (%), 2017 to 2019.



Source: Welsh Government

Notes:

The horizontal axis shows the productivity of the sector in Wales relative to the UK excluding London. Productivity is measured by GVA per hour worked. The vertical axis shows whether each sector in Wales is over- or under-represented in terms of jobs, relative to the UK excluding London.

Black bubbles: number of jobs grew by greater than the all-industries average 2009-19 (+6.5 per cent).

Grey bubbles: number of jobs grew, but by less than the all-industries average.

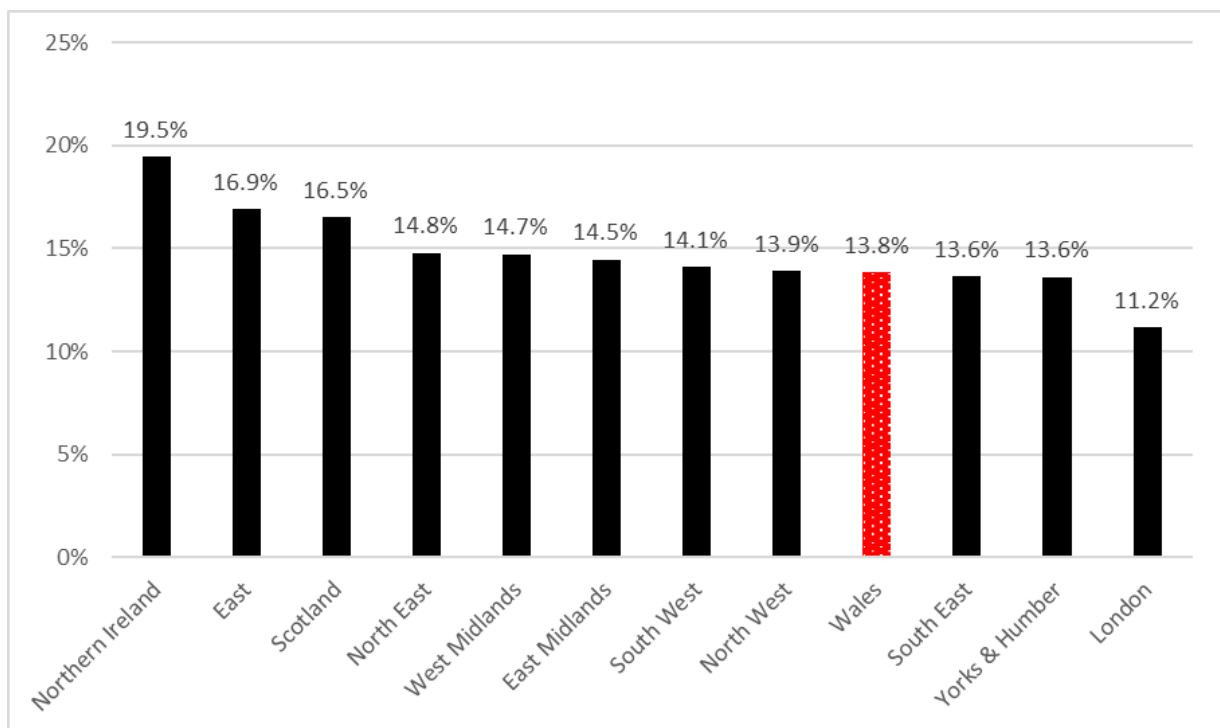
Red bubbles: number of jobs decreased over the period.

The diameter of each bubble is proportional to the size of the sector.

In broad terms the chart indicates that, compared to the rest of the UK excluding London, Wales is not generally over-represented in low productivity sectors: while Wales is indeed over-represented in some low productivity sectors it is under-represented in others. The more general problem is comparatively low productivity across sectors, with manufacturing the notable exception.

As noted above, research has indicated that low levels of business investment may be a key factor in explaining the UK's relatively poor levels of productivity compared to many other developed economies. However, it is unclear to what extent investment is a fundamental driver of low productivity, rather than a reflection of other more basic factors. Experimental data for Wales, shown in Chart 22, indicates that business investment in Wales may be relatively low even in the UK context, but similar to several English regions.

Chart 22: Investment share of GVA (%), excluding mainly public sector activities, and dwellings, annual average 2010-2019



Source: ONS experimental statistics

Note: Measure is Gross Fixed Capital Formation (GFCF) less GFCF in Public Administration and Defence, Education, Human Health and Social Work Activities, and in dwellings, relative to GVA less GVA in Public Administration and Defence, Education, Human Health and Social Work Activities.

The data in Chart 22 shows that while business investment in Wales is relatively low, the differences with most English regions are small. It should also be noted that no account is taken of any differences across regions in investment costs. Investment levels may also be influenced by variations in the mix of industries in a region. For these reasons, and because investment levels will in turn reflect other factors influencing the potential profitability of investments, it is not possible to draw firm conclusions on the role of the level of investment in shaping Welsh relative productivity performance. However, the data in the chart shows no clear association with the variation of labour productivity across UK countries and regions.

Research and Development (R&D) expenditure - a specific type of investment - is lower in Wales than across other UK countries and regions. While innovation is a key driver of growth, R&D expenditure is an imperfect indicator of innovation. It is highly concentrated in specific sectors, whereas the Welsh productivity “gap” is broad based. In addition, R&D expenditure does not capture well the diffusion and absorption of innovation. Research by the OECD has indicated that diffusion and absorption of innovation is more important than discovery, particularly for regions that are not at the frontier.²⁴ Furthermore, an assessment of convergence amongst EU regions found that measures that increased R&D spending were not successful in increasing growth.²⁵

Research indicates that, in general, skills and qualification are the single most important driver of differences in the level of productivity and pay over the long term.²⁶ The Welsh workforce has qualification levels that, while similar to (or even a little above) those in many parts of England, are below those for southern England and Scotland. These latter areas are the parts of the UK with the highest productivity levels.

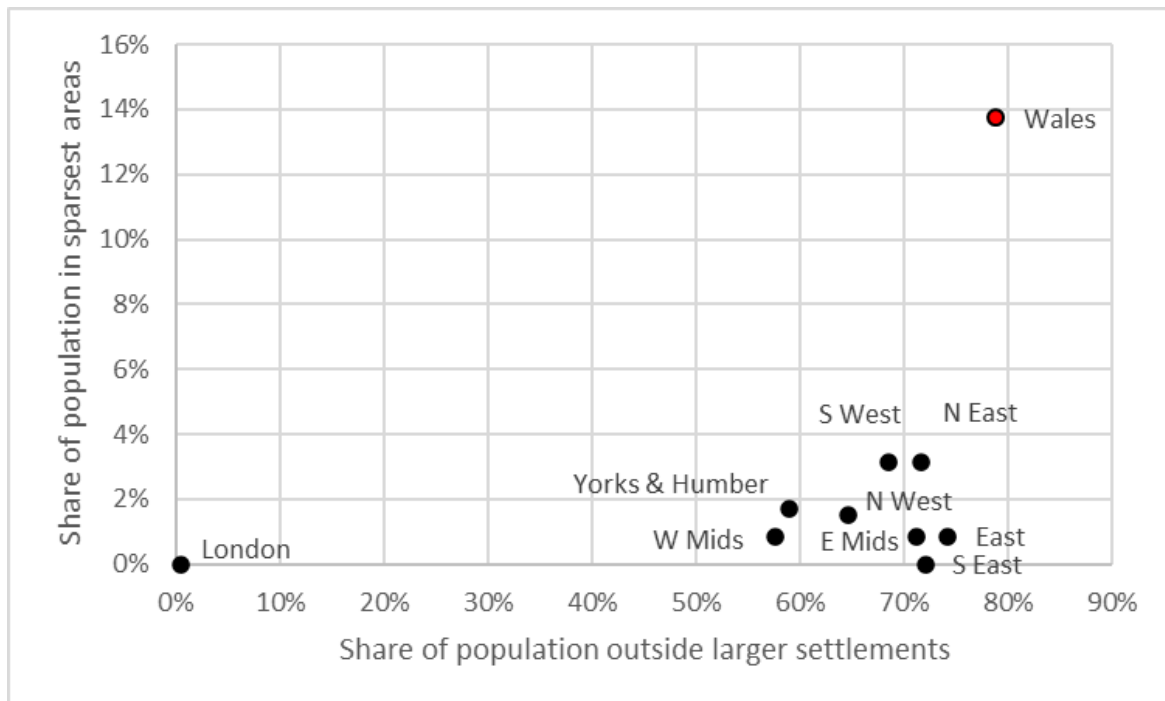
Wales also almost certainly experiences some productivity “penalty” from both its dispersed settlement pattern and from the absence of a very large conurbation. Chart 23 shows that, compared to English regions, Wales has both a high share of its population living outside larger settlements and a relatively high share living in sparsely populated areas.

²⁴ See: [Promoting Growth in All Regions | OECD Regional Development Studies | OECD iLibrary \(oecd-ilibrary.org\)](#)

²⁵ See: [Does R&D Expenditure Boost Economic Growth in Lagging Regions? | Social Indicators Research \(springer.com\)](#)

²⁶ See research for the Deaton Review of Inequality: [Education inequalities | Inequality: the IFS Deaton Review](#)

Chart 23: Indicators of concentration of population in Wales and English regions



Source: Welsh Government

Notes: Horizontal axis shows share of population outside ONS-defined settlements of 100,000 people or more. Vertical axis shows share of population in ONS-defined sparsest areas.

It is notable (see Chart 21 above), that the Welsh productivity gap is concentrated in the services sector. Research has indicated that productivity in manufacturing is less dependent on settlement patterns than on services.²⁷

Across the UK, some of the larger conurbations have increasingly supported the creation of jobs with high productivity and pay, especially in the tradeable services sector.²⁸ Research by the OECD shows that a successful tradeable services sector in turn provides a strong basis to support businesses providing locally consumed services.

Productivity performance in parts of Wales may be hampered by their relative peripherality and consequent limited connectivity. There may also be issues arising from a lack of indigenous large firms; from weak management skills; and, perhaps from limitations in the access to finance.

Labour productivity is only a partial measure of productivity as it does not take account of the level of capital employed and can therefore be a misleading indicator of the relative efficiency with which inputs are used.

Total factor productivity (TFP) assesses productivity by considering all inputs. However, measuring TFP is challenging, and official estimates have only recently

²⁷ See: Graham, D: Agglomeration, Productivity and Transport Investment: [Agglomeration, Productivity and Transport Investment on JSTOR](#)

²⁸ Nevertheless, it should be noted that many large northern English cities also appear to underperform when their productivity is compared with large cities in other countries.

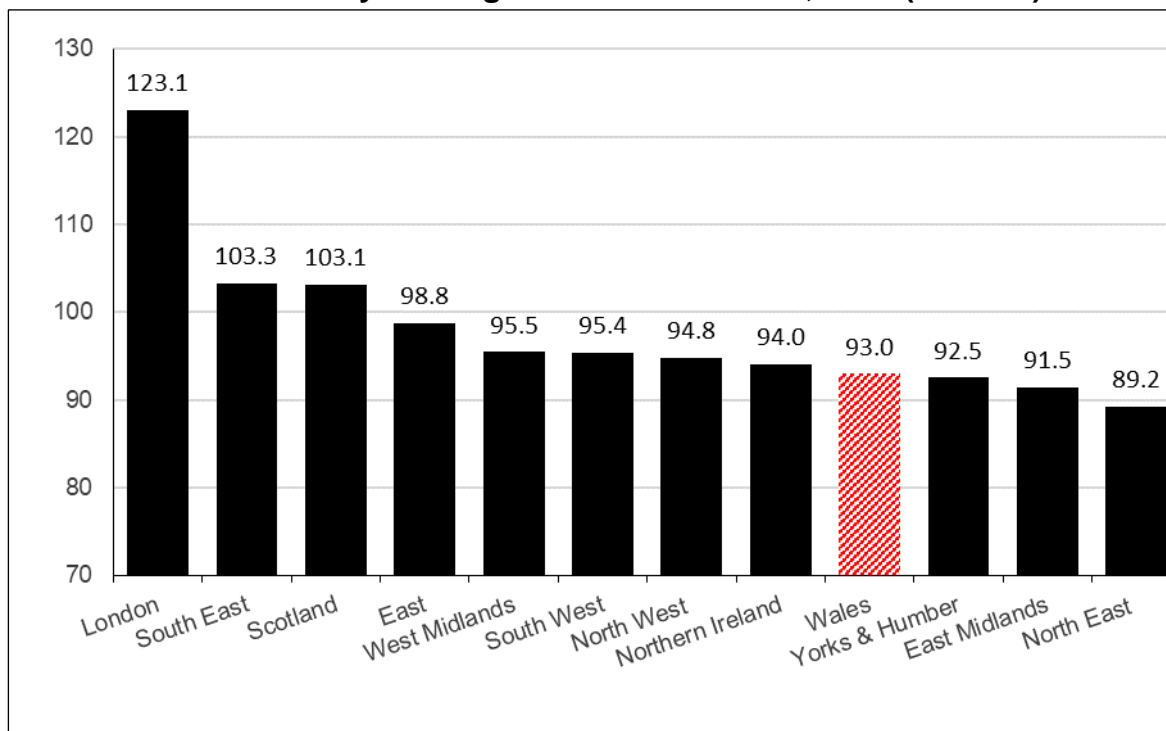
become available at the sub-UK level. These estimates were discussed in last year's report. Broadly, Wales's relative TFP performance appears similar to its performance on labour productivity: even after adjusting for differences in the factors associated with productivity at the GB level, both labour productivity and TFP were found to be lower in Wales than in most other GB countries and regions - and the gaps were both quite large and similar for labour productivity and TFP.

The fact that the gap between Wales and most other countries and regions exists whether measured in terms of TFP or labour productivity suggests that differences in the level of investment, as shown in Chart 22, are unlikely to be the sole, or even the main, driver of the Welsh productivity gap with the UK. Wales does of course share in the wider UK's apparently deficient investment levels when compared to other countries.²⁹

While productivity is the key driver of pay over the long run, other factors can also play a part in explaining differences in pay across areas and over time. Chart 24 shows relative weekly earnings for Wales and other UK countries and regions. The chart shows the results for median earnings, which represent the earnings of the employee at the mid-point of earnings distribution - the "typical" employee.

²⁹ See particularly: [Cracking the Productivity Code: An international comparison of UK productivity \(lse.ac.uk\)](http://lse.ac.uk)

Chart 24: Median weekly earnings for full time adults, 2023 (UK=100)



Source: Welsh Government

In broad terms, the relative position of countries and regions in the chart in terms of earnings reflects differences in average labour productivity. However, the variation in earnings is considerably less. In large part this is because the measure used for earnings is the median, which does not take account of extreme values and hence does not reflect the contribution of jobs with very high earnings and productivity.³⁰ In addition, wages in many sectors are set on a pan-UK basis (albeit often with a London premium), which will serve to limit differences across UK countries and regions.

Remote and hybrid working

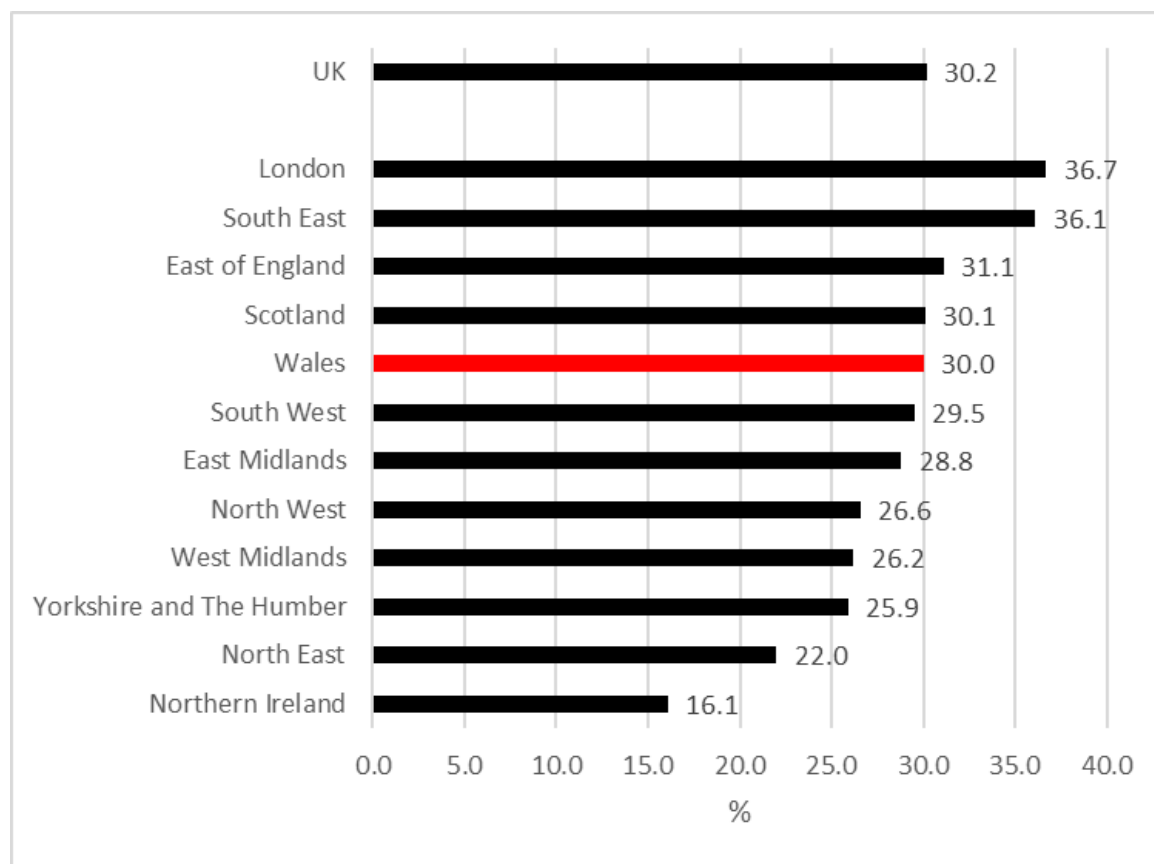
As discussed in previous reports, the pandemic accelerated the trend to “remote” economic activity, particularly remote working, with many employers stating that they intend to move permanently to a model of hybrid working. The scale of the lasting change is currently unclear, but the level of hybrid working appears to have stabilised well above pre-pandemic levels.

Homeworking in Wales more than doubled between the final quarter of 2019 and the first quarter of 2022 (the most recent available data), from around 12 percent of the total working population to about 30 percent. Similarly, in the UK the homeworking figures also more than doubled to around 30 percent.

³⁰ The measure used for productivity is the mean, which does reflect the presence of such jobs.

In the most recent available quarter, rates of homeworking varied across UK countries and regions (see Chart 25).

Chart 25: People working mainly from home, January to March 2022 (%)



Source: ONS

The chart shows that the share of homeworkers in Wales was similar to the UK as whole, with London being the English region with the highest share and Northern Ireland the country with the lowest share. This pattern reflects in part differences in occupational composition, with professional occupations having the largest share of homeworkers.

In addition, in the most recent period over 11 percent of people in Wales who did not mainly work from home reported working from home on at least one day a week.

Recent research, albeit focused mainly on the USA, suggests that the changes are becoming embedded and may increase further in the future. The latest findings indicate that, while fully remote working can reduce labour productivity, this can be more than offset by savings on other inputs, particularly property, so that total factor productivity is not necessarily reduced. The evidence does not indicate that hybrid working reduces labour productivity.³¹

³¹ [The Evolution of Working from Home | Stanford Institute for Economic Policy Research \(SIEPR\)](#)

Increases in remote working may bring opportunities for people with valuable skills who, for reasons perhaps of disability, family circumstances or geographic remoteness, were not previously in employment. There are some indications in recent labour market data that such beneficial effects may be occurring, at least in respect of some women who were previously inactive due to looking after the family home. Remote working may help to attract people to, and retain people in, areas that have historically struggled to create jobs.

An increase in remote working could also risk widening some inequalities. On the one hand, there may be a loss of employment for lower paid people in locally consumed services and, on the other hand, gains in the well-being of people working remotely may accrue to people who are typically in better paid jobs.

Recent research indicates that a shift is underway, with some economic activity, and jobs, in sectors providing services to employees reducing in dense urban areas and increasing in some suburban areas.³² Implications for housing demand, commercial property (including offices) and transport use are not yet clear, although international evidence suggests there have already been some negative effects on the value of office property.³³

Welsh demographic change

The size and structure of the Welsh population has important economic and fiscal implications.

There is some, but not wholly conclusive, evidence that aging of the population is associated with slower growth in productivity. For example, the average level of savings across a population that is older may be lower, reducing funds available for investment³⁴. And an older population may imply a slower rate of adjusting to the change in skills associated with new technology.

A larger share of older people will place greater burdens, and impose higher costs, on some public services. And an aging population will also affect the tax base, with impacts depending on how labour market participation and income levels vary with age.

In Wales, population determines the annual allocation of additional funds to the Welsh Government block grant under the Barnett formula. Lower relative Welsh population growth will result in lower levels of additional resources than otherwise. At the same time, lower population growth will result in lower levels of demand for some public services. And, as the “base” of the block grant is rolled over from the

³² [Remote working and the new geography of local service spending | CEPR](#)

³³ See for example: [Working from home and corporate real estate | CEPR](#)

³⁴ Savings typically increase over the period to middle age, then decline with age. However, the impact of population gaining on saving will depend on a range of factors, including the specific trajectory of the demographic transition and changes in the length of working lives.

previous year, the smaller the population the greater the level of spending per head.³⁵

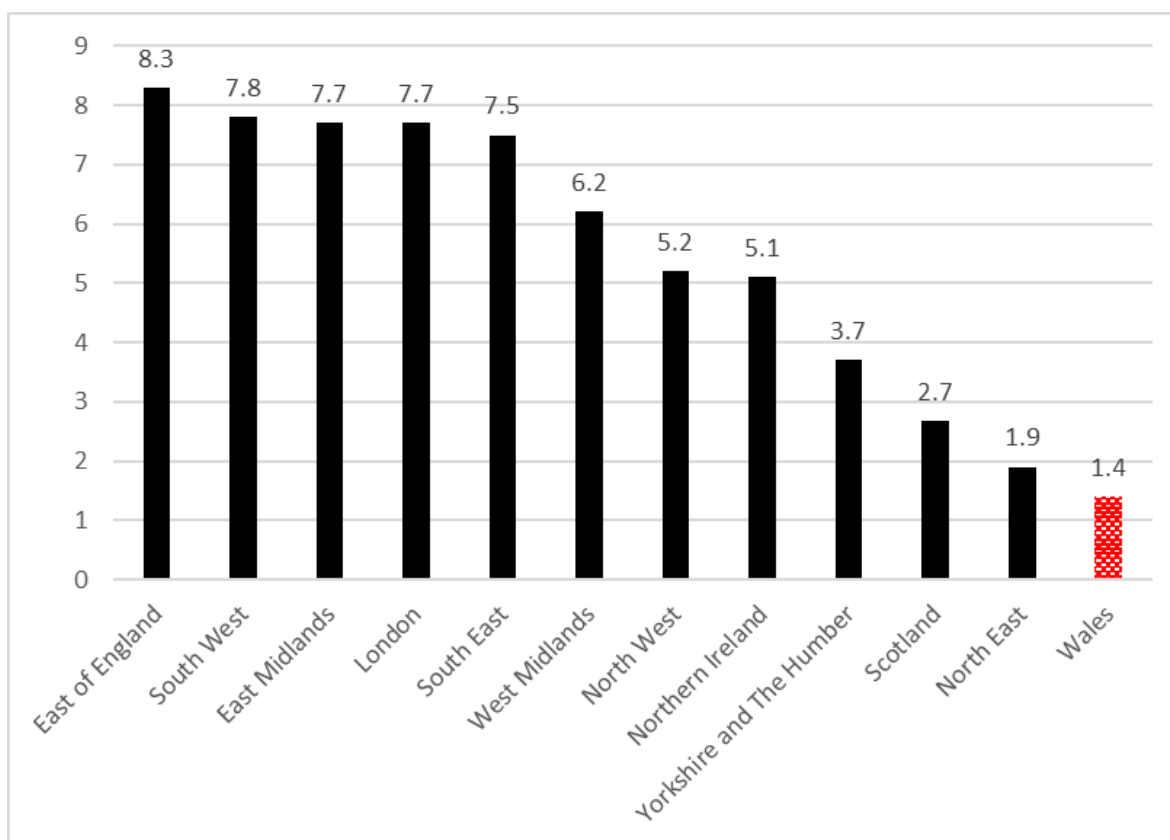
In addition, the size of the Welsh population will influence the level of revenues generated by devolved Welsh taxes.

More broadly, reductions in the numbers, and/or share, of younger age groups could affect the vitality, and perhaps the even economic viability, of areas that are particularly affected, with the potential for a downward spiral if places come to be perceived as unattractive as residential locations.

The population data from the 2021 Census provided additional insights into recent Welsh demographic trends and prospects.³⁶

These data showed that over the previous ten years, population growth in Wales had been smaller than in Scotland, Northern Ireland or any English region (see chart 26).

Chart 26: Population change 2011 to 2021, %



Source: Census

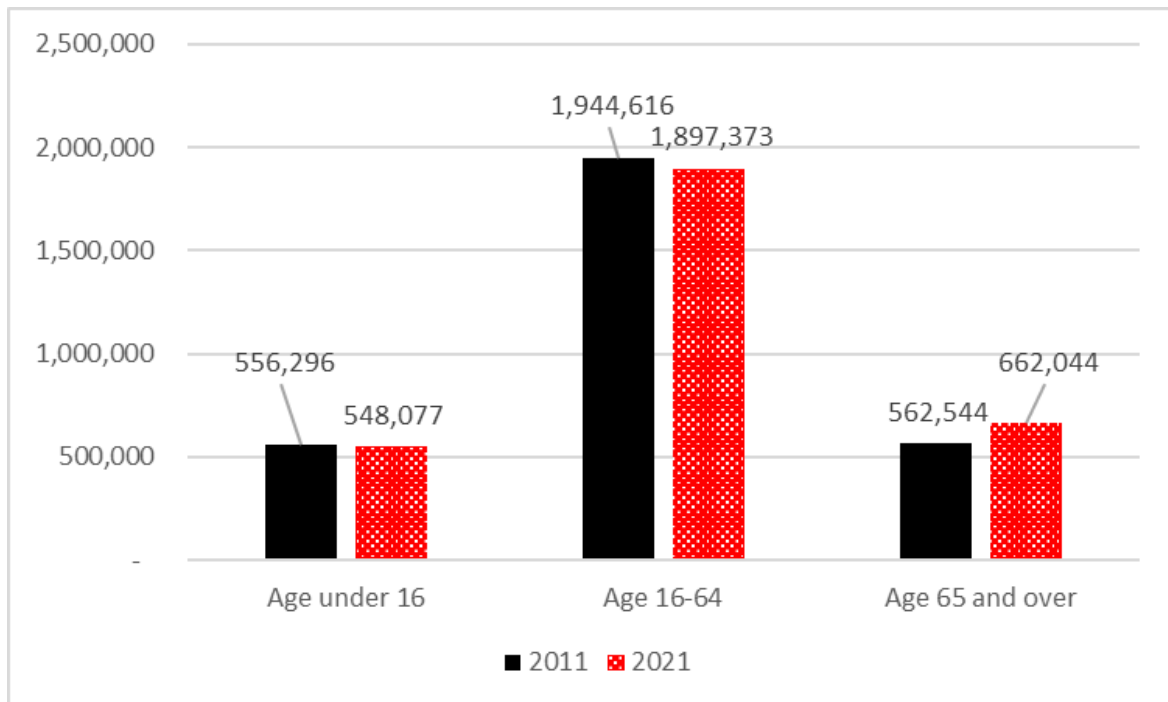
The Census confirmed that Wales has a higher share of the population aged 65 and over than any other UK country or region, apart from the South-west of England.

³⁵ This population effect on relative funding tends to counteract the impact of the “Barnett squeeze”. The latter occurs because the rate of growth generated by the Barnett formula is lower than for comparable spending in England.

³⁶ The mid-year population estimates for 2022 were released on 23 November 2023, too late to be included in this report. These estimates would not change the analysis.

In Wales, as in other UK countries and regions, the share of the population aged 65 and over has increased since the previous Census in 2011. Over the same time period, the share of the population aged 16-64 has fallen in Wales, as it has across the UK as a whole. However, unlike most English regions, the absolute number of people in Wales aged 16-64 also fell (by almost 2½ per cent). See Chart 27.

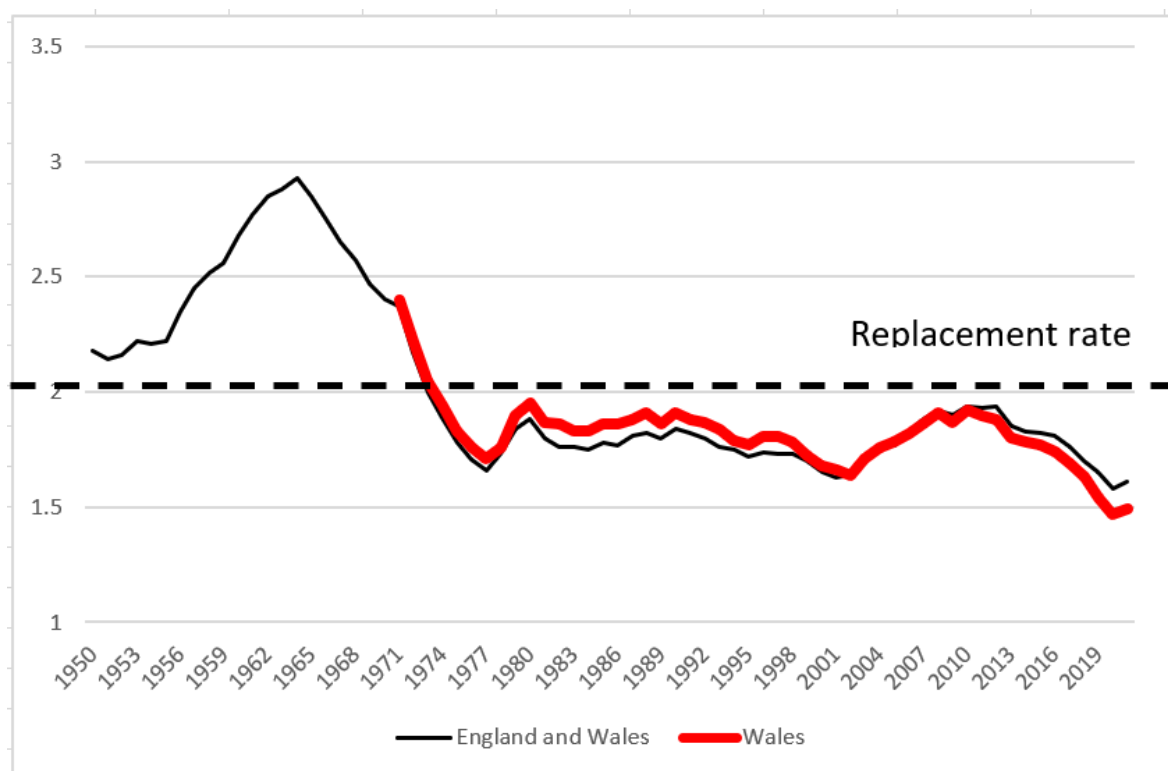
Chart 27: Change in population by age group, Wales, 2011-21



Source: Census

As in many other developed countries, the fertility rate in Wales has been well below the replacement rate for many years - and over recent years has been below that for England. The Welsh fertility rate is shown in Chart 28.

Chart 28: Fertility rate



Source: ONS

Over the long run, there has been a large increase in life expectancy in Wales, although the rate of improvement has greatly reduced over the last decade – including in the period prior to the Covid pandemic. This pattern is also observed across the rest of the UK, and most other developed countries, although the extent of the recent levelling off may be particularly marked in the UK.

The overall size of the population in Wales reflects the balance of fertility, mortality, and migration. Over the recent past, the number of births in Wales has been lower than the number of deaths. Also, over recent years, net migration (from both other parts of the UK and other countries) has been positive, more than offsetting natural population decline and thereby resulting in an overall increase in the Welsh population.

An age breakdown of migrants is only available for internal migration. Over recent years Wales has gained population in both younger and older age groups from migration between Wales and the rest of the UK. The net gain in the younger age groups has been in the 0-16 age range.

Population projections are inherently uncertain, and for Wales will be very sensitive to assumptions about future migration patterns, which are unpredictable. However, if fertility rates remain similar to current levels, a failure to maintain in-migration levels will inevitably result in long run population decline.

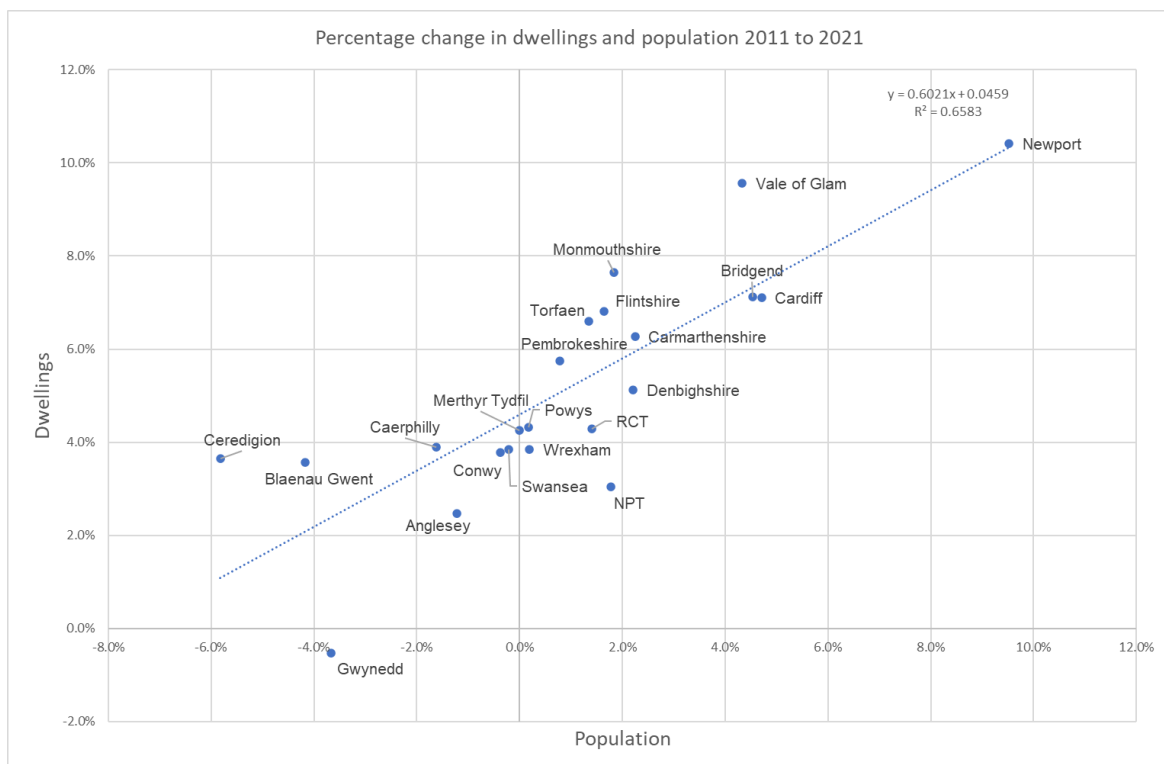
Broadly, the projections indicate that, over the period to 2040, there will be a growing share of older age groups, a gradual decline in the age group aged 16-64, and a

sharper decline in those aged 0-15. These trends are similar to those projected for other parts of the UK, albeit from a base in which Wales has a higher share of older people than most other parts of the UK.

Comparisons of data from the most recent census with the previous census results in 2011 show marked differences in the rate of population change across Wales. Between 2011 and 2021, population decreased in north-west Wales – in the local authority areas of Gwynedd, Anglesey, Conwy and Ceredigion. It has also decreased in Blaenau Gwent, Caerphilly and Swansea. Population was little changed in Merthyr, Powys and Wrexham. Population increased in other local authority areas, and particularly those that are more “accessible”, including towards the eastern end of the M4 corridor in Wales, and especially Newport.

Chart 29 shows that, unsurprisingly, population change is associated with the rate of new dwelling construction. While the direction of causation is unclear, and probably runs both ways, the data does offer some support to the view that constructing dwellings can itself promote population growth, at least when this construction takes place in areas with high demand.

Chart 29: Population change and dwelling number increase, 2011 to 2021



Source: Census 2021 and Welsh Government calculations.

While future population trends are, as noted, inevitably uncertain, it does appear reasonable to draw some tentative conclusions:

- There is a real possibility of sustained population decline, particularly for the working age population and for children, with an associated risk to prosperity and the tax base.
- The elderly will account for an increasing share of the population.
- There will be an increasing reliance on in-migration to maintain population – but as many other countries will also have declining populations, and perhaps increasing levels of affluence, migration rates may fall.
- Population movements within the UK may be affected by the increasing prevalence of “remote” economic activity and the associated impacts (e.g., on property prices), but in ways currently hard to assess.

The broader implications of such changes are also hard to assess. One benefit could be a reduction in the environmental pressures associated with population. Other implications could include:

- Increasing cost pressures in the public sector. This may be particularly relevant in social care as, evidence suggests health costs more related to last period of life, rather than chronological age³⁷, and that health costs are driven more by other factors than demography. It is also not clear that Wales faces high fiscal risks from an aging population than other parts of the UK. While Wales does already have a higher share of older people in its population than the UK, the projected changes in share as the population ages into the future are similar.
- The changing patterns of demand for goods and services associated with aging will affect patterns of employment. (This may particularly impact on some public services, of course, but also on privately provided care services and leisure activities.)
- Demand for some aspects of the education system will change and probably reduce, but lifelong learning may become increasingly important.
- There are potential consequences from population decline in more rural areas for the use of the Welsh language.
- Issues that arise from changing population levels may be particularly concentrated in some local authority areas.
- Family friendly employment policies, childcare provision, and older worker policies are all likely to attract a higher priority.

The increasing reliance on in-migration, and the importance of policies that help in attracting and retaining “appropriate” migrants, may have implications for housing policy, and for other policy areas including transport.

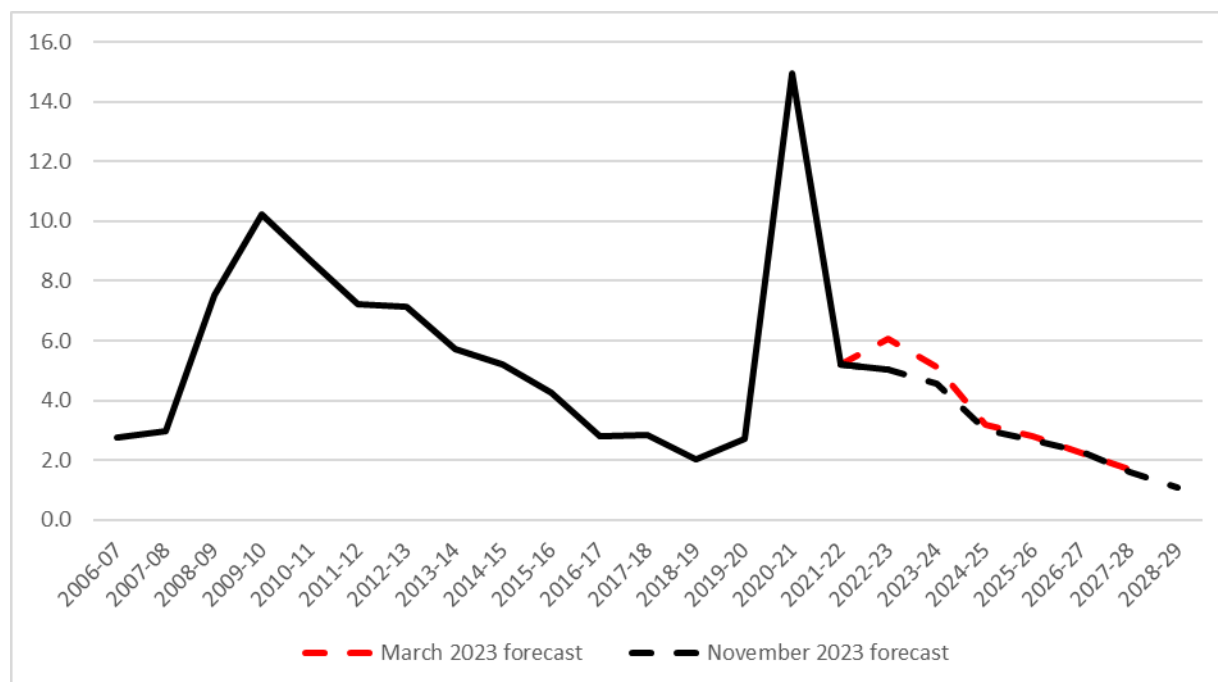
³⁷ In other words, other things equal, additional health costs will be similar for people who live to the ages of 80 and 85, as in each case most of the additional costs are incurred in the last five years of their lives.

Fiscal prospects

UK – fiscal prospects over the short to medium term

The OBR’s November 2023 forecast for public sector net borrowing is shown in Chart 30.

Chart 30: Public Sector Net Borrowing, outturn and forecasts (per cent of GDP)



Source: OBR

Borrowing was nearly £20 billion lower in the first half of this financial year than the OBR forecast in March, due almost entirely to stronger receipts growth. The strength in receipts mainly reflects higher inflation and earnings. The OBR expects continued receipts strength in the remainder of the year, but also much higher debt interest spending reflecting higher RPI inflation and Bank Rate. As a result, before the impact of the measures in this Autumn Statement, public sector net borrowing for 2023-24 as a whole is expected to be about £16 billion (around 14 per cent) lower than in the March forecast.

The medium-term fiscal outlook has also improved compared to March. Domestically generated inflation coupled with frozen tax thresholds raises projected receipts. Higher inflation and interest rates also increase welfare spending and debt interest costs. However, higher inflation does not of itself increase departmental and other spending, although the real value of such spending is of course greatly reduced.

The reduction in 2027-28 pre-measures borrowing relative to the OBR’s March forecast is mainly a reflection of an almost £20 billion erosion in the real value of departmental spending.

The OBR notes that the Chancellor has chosen to spend almost all of the pre-measures forecast improvement in borrowing between 2023-24 and 2027-28 on the measures set out in the Autumn statement (including the reduction in National Insurance Contributions and making the tax exemption for capital investment – “full expensing” – permanent), leaving post-measures borrowing largely unchanged.

The OBR assesses that tax changes announced in the Autumn Statement reduce the tax burden by 0.7 per cent of GDP but it still rises in every year to a post-war high of 37.7 per cent of GDP by 2028-29. By 2028-29, frozen thresholds result in nearly 4 million additional workers paying income tax, 3 million more moved to the higher rate, and 400,000 more paying the additional rate.

The OBR forecasts spending to fall steadily as a share of the economy from 44.8 to 42.7 per cent of GDP over the forecast but remains 3.1 per cent of GDP above its pre-pandemic level. Debt interest payments fall from the current very elevated levels as RPI inflation falls but remain one percentage point higher than the post-war average. The single largest contribution to the decline in spending comes from departmental spending falling from 19.2 to 18.1 per cent of GDP over the forecast.

Despite an increase of £4.1 billion a year on average in the Autumn Statement, higher inflation means the real value of departmental spending is £19.1 billion lower by 2027-28 than the OBR’s March forecast. The current Spending Review period ends in 2024-25, and beyond this departmental spending follows two overall envelopes set by the Government in which day-to-day spending grows by 0.9 per cent a year in real terms and capital spending is fixed in cash terms.

The OBR notes the real-terms reduction in public investment that results is much larger than the increase in private sector investment it expects as a consequence of making “full expensing” permanent.

On the basis of these very restrictive assumptions, the OBR forecasts borrowing to fall steadily from 5.0 per cent of GDP this year to 1.1 per cent of GDP by 2028-29, which would be its lowest level since 2001-02. Underlying public sector net debt (excluding the Bank of England) is forecast to rise from 84.9 per cent of GDP last year to a peak of 93.2 per cent of GDP in 2026-27 and then to fall slightly in the final two years to 92.8 per cent of GDP in 2028-29.

The UK Government’s primary fiscal target is for public sector net debt excluding the Bank of England to fall in the final year of the forecast (2028-29 in the latest forecast). On the OBR’s central forecast, this rule is met by a margin of £13.0 billion (0.4 per cent of GDP), up from the £6.5 billion (0.2 per cent of GDP) margin in the March forecast where the target year was 2027-28.

The OBR notes that headroom of £13.0 billion is considerably lower than the average of £29.7 billion that Chancellors have held against their fiscal rules since 2010. Furthermore, the headroom is dependent on the assumed severe restrictions in departmental spending being delivered, and on a range of other assumptions which may not be highly plausible. For example, the OBR’s forecast again incorporates £6.2 billion of extra revenue in 2028-29 from the UK Government’s stated policy of increasing fuel duty rates in line with RPI inflation and the reversal of

the 'temporary' 5p cut. If, like all Chancellors since 2011, rates are instead held at the current rate then more than 43 per cent of the headroom in 2028-29 would be removed and debt would no longer be falling.

The UK Government's supplementary target of public sector net borrowing being below 3 per cent of GDP in 2028-29 is also met in the OBR's central forecast. It is met by a larger margin than the fiscal mandate – £61.5 billion, or 1.9 per cent of GDP – up by £22.3 billion from March.

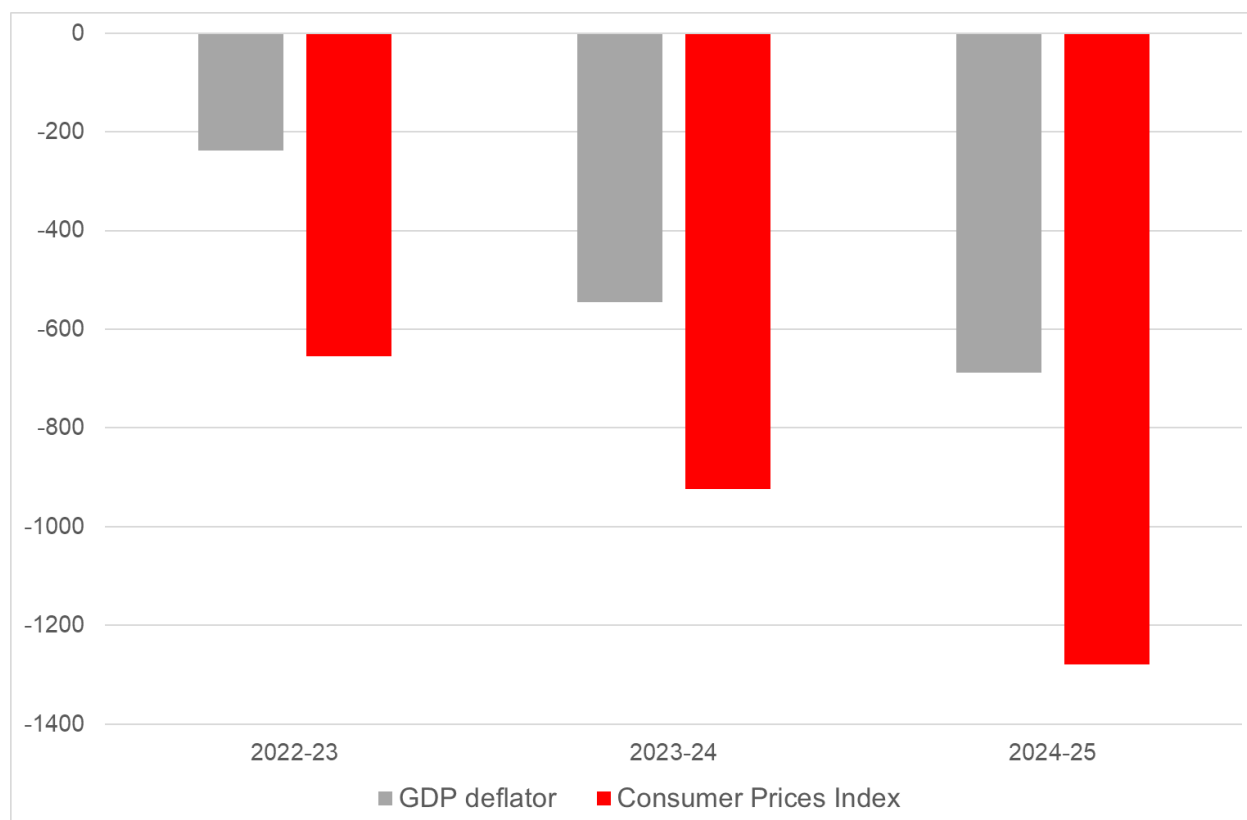
Wales - fiscal prospects over the short to medium term

The UK Government's Autumn Statement provides some modest additional allocations for the Welsh Government's budget in 2023-24 and 2024-25. Because of the inflation shock over the last few years, the Welsh Government's settlement over the 3 years of the current spending review period is worth considerably less in real terms than expected at the time of the review in 2021.

The GDP deflator is generally used to account for inflation in analyses of public spending. However, the OBR has acknowledged that it may not fully reflect the inflationary shock faced by governments in the UK over the last few years. The GDP deflator is a broader based measure of price change than the Consumer Prices Index (CPI) but does not include changes in the price of imported goods which are included in the CPI. The GDP deflator was also affected by the pandemic in a way that means it is unlikely to reflect the cost changes facing public services over the last two years.

An alternative assessment is therefore provided by the change in CPI inflation. On the basis that the GDP deflator and CPI forecast provide a range, the Welsh Government's settlement over the current spending review period is now worth up to around £3bn less than expected in 2021, and £1.3bn or 7 per cent less in 2024-25 alone (Chart 31).

Chart 31: Real terms difference in Welsh Government settlement since October 2021 using different inflation measures (£m, 2021-22 prices)



Source: Welsh Government

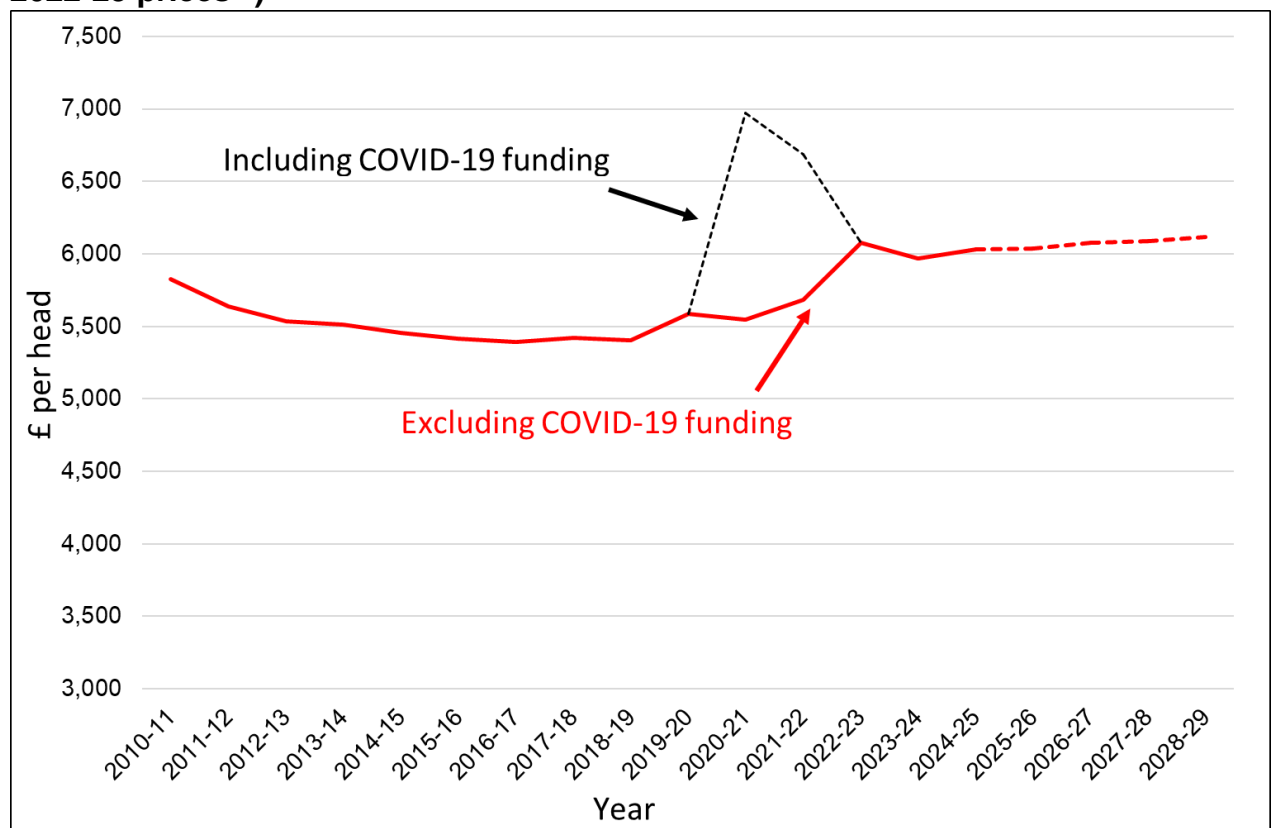
Having fallen by 7 per cent in real terms during the last decade, recent increases mean the Welsh Government’s budget for day-to-day spending in 2023-24 is around 3 per cent higher per person than in 2010-11 in real terms, but lower than in 2022-23. It remains below the 2022-23 level in 2024-25 (Chart 32).

A projection for 2025-26 to 2028-29 is also included in Chart 32, using the assumed growth in overall UK resource DEL from the OBR’s November forecast to grow the Welsh Government DEL, together with the devolved tax forecasts from the OBR’s Welsh Taxes Outlook published alongside the Welsh Government’s draft Budget. This shows continued low growth over the next few years. Between 2024-25 and 2028-29 day-to-day spending per person is set to grow by less than 0.5 per cent a year on average in real terms on a like-for-like basis. Spending per head in 2028-29 will be little higher in real terms than it was in 2022-23.

The UK Government tends to revise up its plans for day-to-day spending at spending reviews, relative to the assumptions made prior to reviews taking place. As noted in the OBR’s November 2023 Economic and Fiscal Outlook, departmental spending in the November 2015 Spending Review was topped up by 14% a year on average over the assumed levels used in the year prior to the Review. For the October 2021 Spending Review the top up was 8% a year on average. While it would not be prudent to plan on that basis, changes of that sort to years beyond 2024-25 could mean increases to the Welsh Government budget of £1.4bn to £2.4bn a year

compared to the levels using the assumptions above. That could see day-to-day spending growing at 2 to 3% a year per person in real terms, rather than under 0.5% as shown above. Even for the year ahead, when it is part of an existing spending review period like 2024-25 in this instance, the Welsh Government has generally received additional funding in-year - often towards the end of the year. Settlement increases ease the pressures on public services in Wales, however the lack of reliable short to medium term spending assumptions from the UK Government makes effective budget planning very challenging.

Chart 32: Welsh Government Resource Budget in real terms per person (£, 2022-23 prices³⁸)



Source: Welsh Government

³⁸ Excludes farm funding and IFRS16 changes which are not included in earlier years.

UK's longer term fiscal prospects

Context

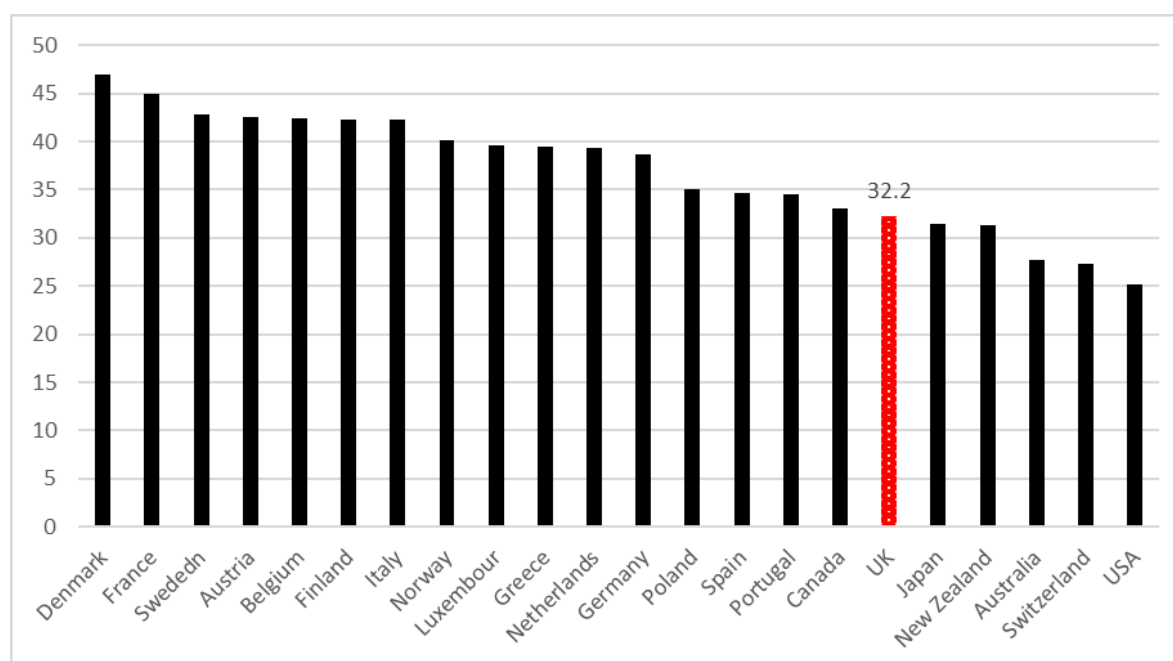
Under the current fiscal framework, around 80 per cent of the Welsh Government's budget is provided in the form of a block grant from the UK government. The remainder of the budget is sourced from devolved taxes and Non-Domestic Rates.

The size of the block grant is determined by the level of UK government spending in devolved areas in England (and Northern Ireland). UK government decisions on the overall level of public spending, and the allocation of that spending across programmes, are therefore obviously crucial factors in determining the level of resources available to the Welsh Government.

While, over the short term, UK government spending can be funded by borrowing, the strength of the tax base, determined by economic growth, and choices over the level of taxation are key to determining the level of resources available for public spending over the long term.

While the picture can vary from year to year, in general terms the level of taxation in the UK has been relatively low compared to most other developed countries. See chart 33. The data shown is for 2019 as data for subsequent available years are likely to be distorted by the effects of the pandemic.

Chart 33: Tax share of GDP by country, 2019 (%)



Source: OECD

Note: Ireland is excluded due to unrepresentative data for GDP.

In their November 2023 forecast the OBR projected that tax revenues as a share of GDP could rise to just under 38 per cent of GDP in 2026-27. If the share of tax revenues in GDP for other countries remained unchanged from 2019, the UK would shift to a position around the middle of the pack of OECD countries. However, it seems likely that due to common demographic and other cost pressures the tax share in GDP will also rise in many other countries.

Over the long run, economic growth has more potential to deliver a large boost to revenues than increasing the share of tax in GDP. For example, the increase in real tax revenues delivered by a five-percentage point increase in the UK tax share would have been produced by around five years of economic growth at the rates of growth that were typical over the long run prior to the financial crisis.

Major UK fiscal pressures and risks

Projections of UK government debt

The OBR's latest "Fiscal Risks and Sustainability Report",³⁹ which explores the long run risks, pressures, and threats to the UK's public finances, assumes no changes in tax rates beyond those already announced but makes assumptions about long run economic growth rates that imply some recovery from recent very low rates, albeit remaining below those seen prior to the financial crisis of 2007-8.

On this basis, the OBR judges that the UK's current fiscal stance is unsustainable over the long run.

While the analysis undertaken by the OBR relates to the UK fiscal context and is therefore *indirectly* relevant to Wales through the implications for UK public spending, much of the analysis relates to pressures and risks which will impact *directly* on the Welsh Government.

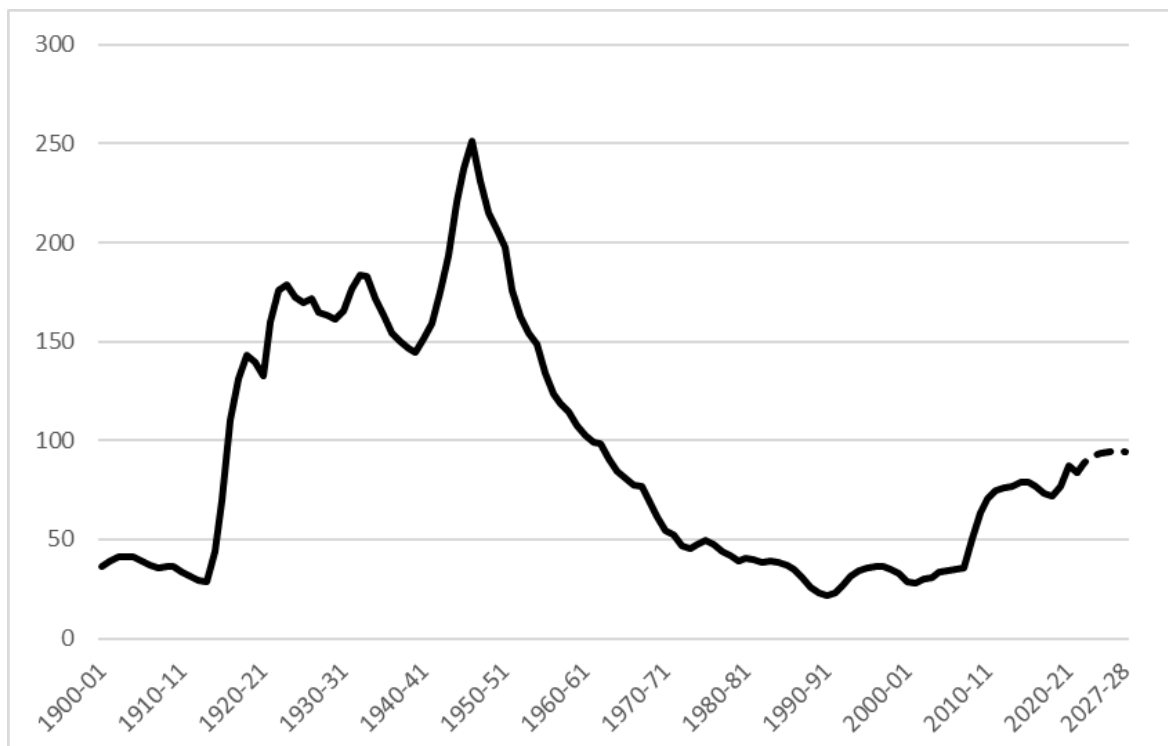
Government debt levels have risen three-fold since the start of this century and, at around 100 per cent of GDP, are at their highest level in over 60 years (see chart 34).⁴⁰

This dramatic increase in public debt is partly due to the series of crises the UK (and other advanced economies) have faced so far this century. In addition, efforts to reduce debt between crises have only been partially effective.

³⁹ [Fiscal risks and sustainability – July 2023 - Office for Budget Responsibility \(obr.uk\)](#)

⁴⁰ The data used in Charts 33 and 34 is from long term projections made before OBR's new medium-term forecasts in their latest Economic and Fiscal Outlook Statement. The broad picture presented in the charts remains applicable.

Chart 34: UK debt to GDP ratio since 1900 (%)



Source: OBR

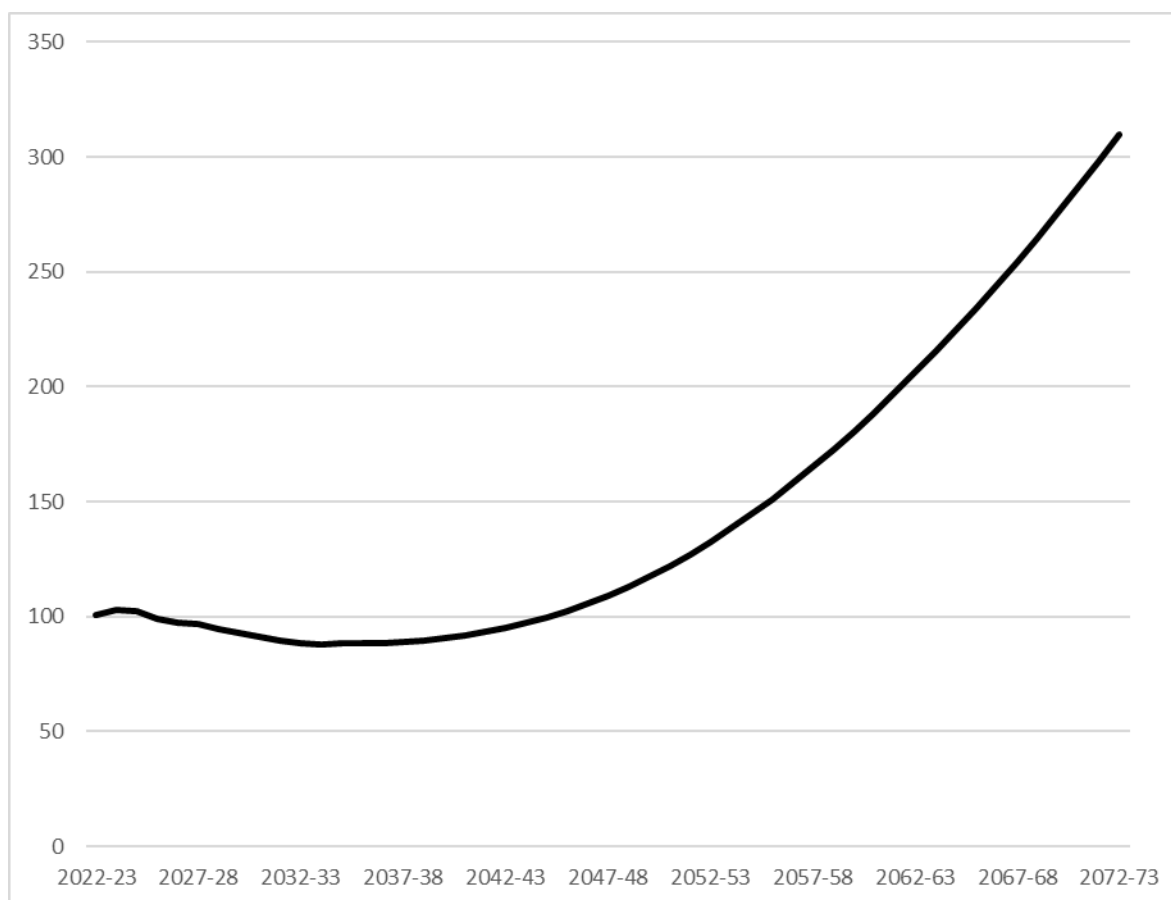
Note: Chart shows underlying debt excluding Bank of England

Increases in interest rates and higher inflation have also been factors driving growth in debt in recent years. The UK is particularly vulnerable to these factors as UK government debt has relatively short maturities and a high share of debt is in the form of index-linked gilts. In addition, more of the UK's debt is in the hands of foreign investors than in most other G7 countries. This renders the UK vulnerable to changes in sentiment and loss of confidence in the attractiveness in UK assets.

Overall, mainly as a result of these factors, the UK's public finances have deteriorated relative to most other developed countries.

Looking out over the next 50 years, the OBR's latest long-term fiscal projections illustrates the challenges in trying to keep debt from rising continually. The baseline long term debt projection is shown in Chart 35.

Chart 35: OBR's long term UK debt projection (% of GDP)



Source: OBR

Note: Chart shows underlying debt excluding Bank of England

The OBR's baseline long-term baseline debt projection, which assumes no changes in taxes other than those currently planned, shows that the aging of the population progressively reduces tax receipts and increases spending pressures.⁴¹ In addition, higher interest rates and a rising debt stock push up debt interest costs. By the early 2070, debt increases from around 100 per cent to around 300 per cent of GDP.

The OBR assesses that its new baseline projection as shown in the chart probably understates the full range of potential long-term pressures on the public finances. These include:

- A continuing failure to index fuel duties.
- Measures to ease planned squeeze in departmental expenditure limits beyond the current spending review period.
- Feedback between the level of debt and the interest rate paid on it by the government.
- Public investments to assist the transition to net zero.

⁴¹ The debt-to-GDP ratio initially falls to a low of 88 per cent in the mid-2030s thanks to an assumed starting primary surplus and falling pupil numbers in education. The former assumption may be optimistic in the light of the extremely challenging fiscal position facing the UK Government.

- Potential increases to defence spending in response to increasing global security threats.
- Potential future shocks to the public finances, including from slower growth resulting from global trade tensions.

In addition, the OBR particularly highlights emerging evidence of potential pressures arising in two areas: health-related inactivity and energy costs.

Unlike most other developed countries, the UK has seen a post-pandemic increase in inactivity in comparison with the pre-pandemic period. The largest and most durable source of this rise in inactivity has been among those citing ill-health as their principal reason for being out of the labour market.

The post-pandemic rise in health-related inactivity has been particularly pronounced among those who are older, are suffering from mental health problems or other unspecified conditions, are relatively low skilled, and/or have previously worked in lower-paid, customer-facing service industries and occupations.

The large and growing number of people out of the workforce for health reasons or working with a health condition puts pressure on the public finances via three potential channels:

- Higher welfare spending for those claiming health-related benefits.
- Foregone tax revenue from people either not working or working fewer hours and earning less.
- Higher health care spending, reflecting the two-way relationship between the duration of economic inactivity and deterioration in health.

The implications for the UK public finance will of course depend on whether the trend to increasing inactivity continues, increases, or reverses. If the trend does continue, many of the cost pressures will of course also impact directly on the Welsh Government budget.

Despite comparatively rapid progress in decarbonising over the past 30 years, the UK remains one of the most gas-dependent economies in Europe. Net imports have risen since 2000 to currently make up around half of the gas consumed in the UK.

In the aftermath of the invasion of Ukraine, higher gas prices reduced energy demand but also household incomes (despite government support measures). However, the overall reduction in the energy intensity of the UK economy since the last energy crisis in the 1970s means that a larger rise in average energy prices over the past two years has had a more modest impact on output and consumption.

According to the OBR, continuing dependence on gas at the current level could, in an adverse scenario with repeated crises that cause spikes in gas prices similar to those seen over the last few years, be as expensive fiscally as completing the transition to net zero.

This stylised scenario represents an extreme case, as repeated crises of the suggested magnitude appear unlikely, particularly in view of the incentives already in

place that will progressively reduce the role of gas in the UK energy mix. However, less extreme energy price increases are a much more likely potential outcome, and again one that would directly affect the Welsh Government's budget.

Welsh longer-term fiscal prospects

Longer term fiscal scenarios for Wales

The longer-term projections in Chart 36 use the medium-term outlook illustrated in Chart 32 as a starting point. Three scenarios are then considered for the period from 2027-28 to 2032-33.

Scenario one: OBR “demand-based” spending projections

- Based on the OBR’s baseline projections for relevant non-interest, non-benefit spending from the 2023 Fiscal Risks and Sustainability report. UK Government spending relevant to block grant funding grows faster than GDP throughout its projection period. This reflects increased demand from factors such as an ageing population and increases in the real costs of providing health and care. As shown in chart 35, this scenario eventually leads to an exponential increase in net public sector debt.

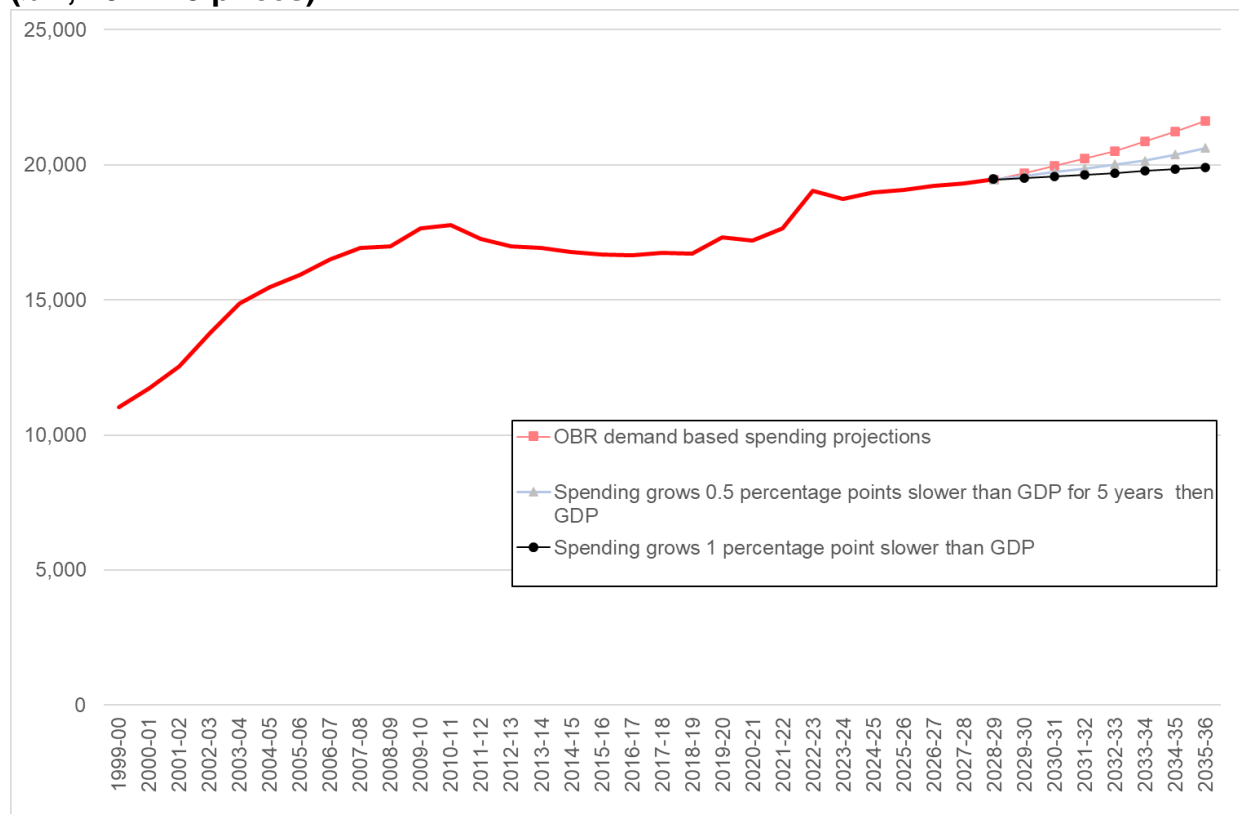
Scenario two: Growth 0.5 per cent below GDP for 5 years then GDP

- UK Government spending relevant to Welsh Government block grant funding for day-to-day spending grows slightly slower than the UK economy until the early 2030s and then at the same rate as the economy. This scenario reflects a situation where the UK Government might want to keep reducing the level of public sector debt as a share of GDP beyond the medium-term forecast horizon, followed by a period of stability.

Scenario three: Growth one percentage point less than GDP

- Relevant UK Government spending grows one percentage point slower than the UK economy. This reflects a scenario where there are demands to reduce debt more rapidly or other elements of UK spending – such as pensions or debt interest – are growing more quickly.

Chart 36: Long-Term Projections for Welsh Government Day to Day Spending (resource budget excluding COVID-19) in real terms, under three scenarios (£m, 2022-23 prices)



Source: Welsh Government

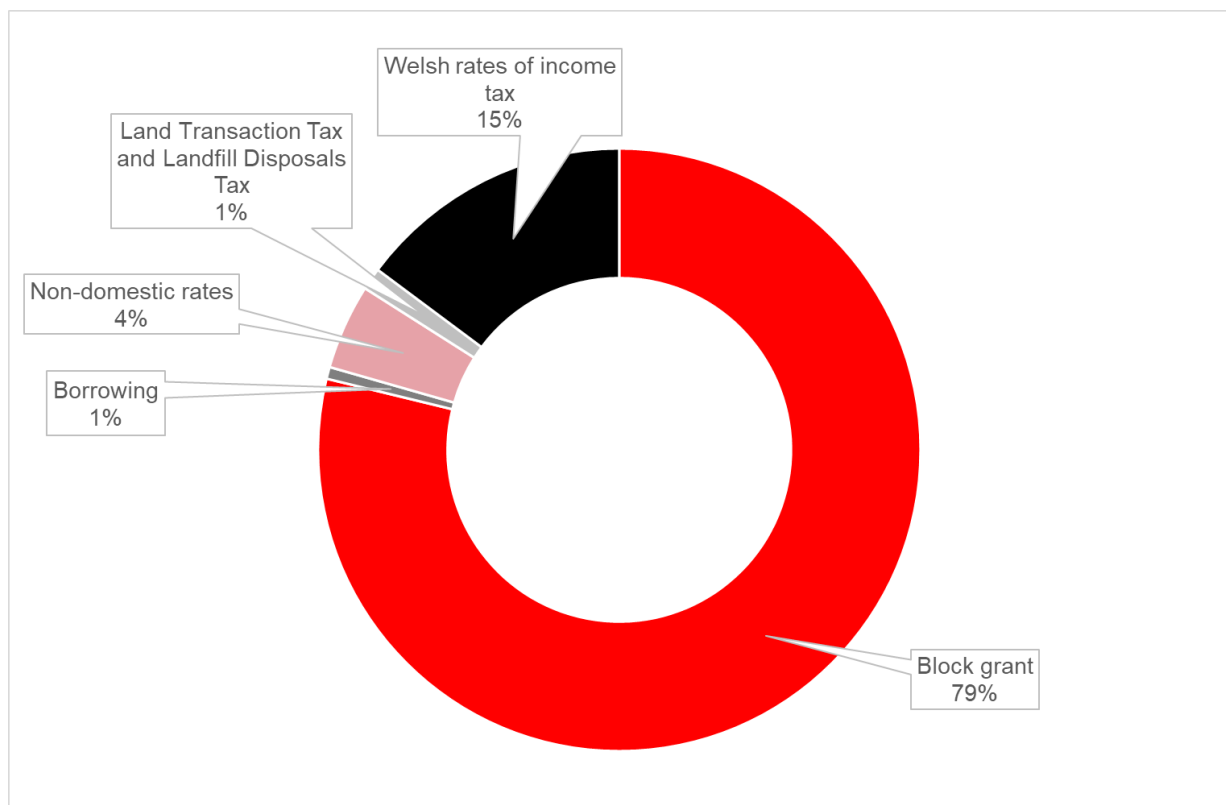
The demand-led scenario has the Welsh Government resource budget growing faster over a sustained period of time than at any time since the 2000s. This scenario is most likely to provide the necessary resources to meet future demand for public services but, given the OBR’s conclusion that this leads to exponential growth in net public sector debt without tax increases, it may not be the most likely.

The middle scenario suggests the resource budget will grow a little faster than over the next five years, while the lower scenario sees slightly slower growth in the longer term. Both these scenarios imply spending per person growing at well under half the average rate since devolution began.

Fiscal sustainability

As illustrated by the scenarios above, the future prospects for the Welsh Government’s budget are driven by UK Government decisions about spending on public services in England. These decisions dictate changes to the Wales block grant via the Barnett formula. Even with tax devolution, 79 per cent of the Welsh Government’s funding comes via the block grant (chart 37).

Chart 37: Financing of Welsh Government Draft Budget 2024-25

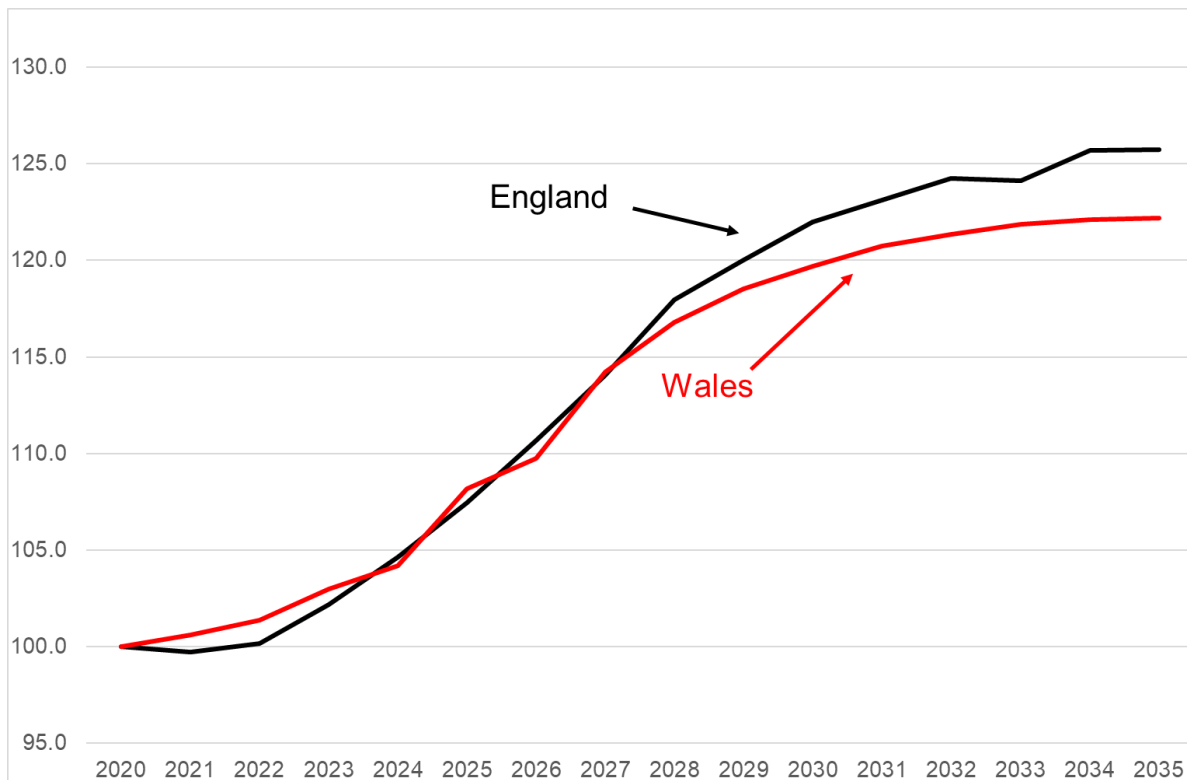


Source: Welsh Government

The sustainability of the Welsh Government's budget to meet public service needs in future will therefore depend to a large extent on UK Government spending decisions relating to public services in England. If the equivalent services in England are adequately funded, then the future adequacy of funding in Wales will depend on whether the demand for those services is growing at a different rate to that in England. The relative performance of the devolved taxes will also have an impact.

The increasing population of older people is expected to be a key driver of growing demand for public services across the UK. Wales has a higher proportion of older people than England – part of the reason it has a higher relative need to spend on public services – but it is the growth in that population that will drive change in demand. Chart 38 shows the projected growth in the population with remaining life expectancy of 10 years or less, a group which is likely to generate some of the highest future demand for public services. This population is expected to grow quickly, but at around the same rate in England and Wales until the late 2020s, followed by slightly faster growth in England after that.

Chart 38: Projected population with remaining life expectancy of 10 years or less (2020=100)



Source: Welsh Government based on ONS 2020 based population projections

If the public service needs of this group in England are properly met over the medium to long term, then there is a reasonable chance that the Welsh Government will also have the necessary resources to meet demand under current fiscal framework arrangements. The Barnett formula squeeze will mean growth in spending is somewhat lower in Wales than in England, other things being equal, but there is a mechanism in the Welsh Government's Fiscal Framework Agreement to limit that effect over the medium to long term. There are of course other dimensions to public service demand which would need to be considered in a more comprehensive assessment of sustainability.

Whether the UK Government will provide adequate funding in England is clearly a major risk. The highly restrained expenditure plans for the next five years which underpin the OBR's latest fiscal outlook suggest that the prospects are poor, at least in the short to medium term. As noted above, the scenario which is most likely to provide the necessary funding in the longer term is also the one that is unsustainable given current taxation levels according to the OBR. Further to this it is worth noting the cumulative pressure on public services across the UK as a result of funding below demand over the last decade or so.

Of course, the Welsh Government can also vary the size of its budgetary envelope via the use of devolved taxation levers. These levers provide valuable flexibility and are covered in more detail in the following section. However, their use to generate

very large changes in resources relative to block grant funding could well impact on the tax base in Wales in a way which would raise further sustainability questions.

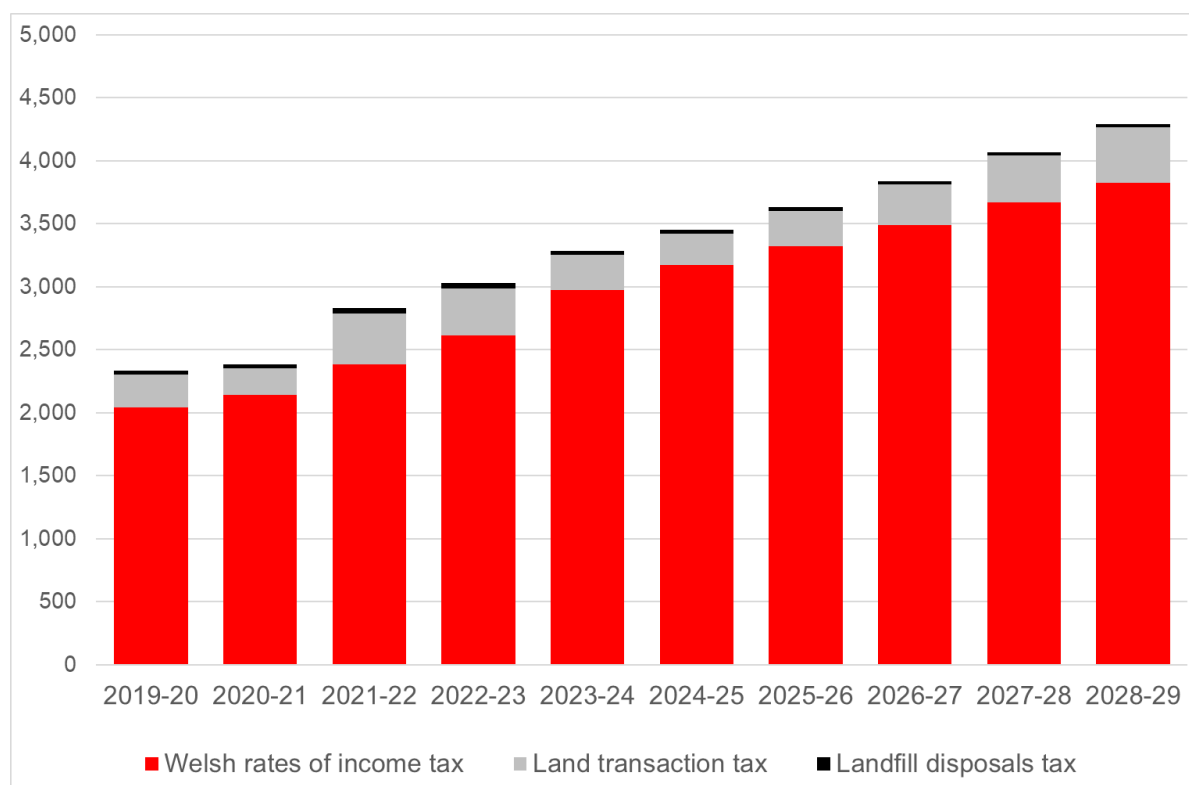
Other Welsh fiscal considerations

Welsh tax revenues

The OBR's November Economic and Fiscal Outlook included new forecasts for the devolved taxes and for the UK taxes which are used to derive the associated block grant adjustments. An updated revenue forecast for landfill disposals tax and further detail on the other forecasts is included in the OBR's Welsh Taxes Outlook published alongside the Welsh Government's draft budget.

The latest forecasts show strong growth in revenues from the Welsh rates of income tax (chart 39). Over the outturn years between 2019-20 and 2021-22 WRIT revenues grew by 8% a year on average and are forecast to continue growth at a similar rate for the next few years. Land transaction tax revenues are expected to be relatively low in 2023-24 and 2024-25, reflecting a muted property market, and then to recover across the later years of the forecast.

Chart 39: Devolved tax forecasts (£ million)



Source: HMRC, WRA, and OBR

The OBR's forecasts for UK equivalent taxes also affect the Welsh Government's budget via the block grant adjustments.

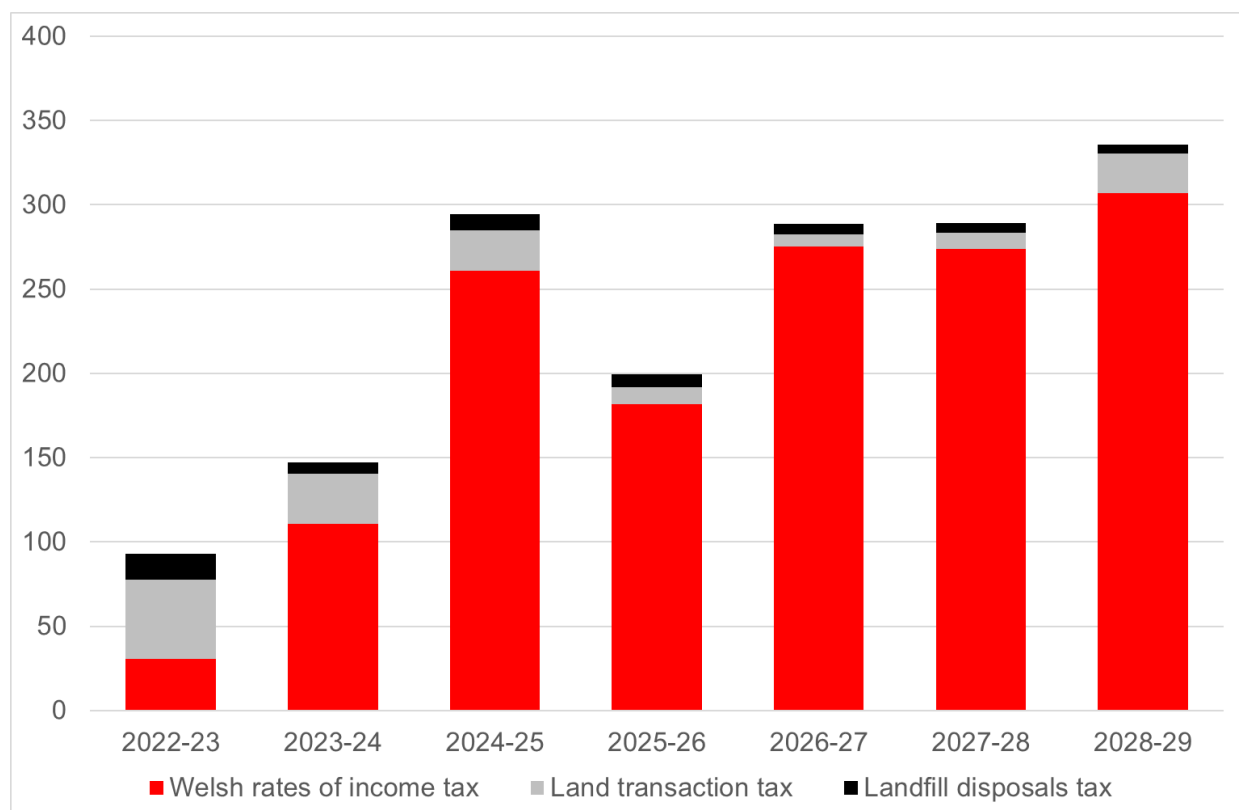
The net position between the devolved taxes and the associated block grant adjustment is shown in chart 40. The devolved taxes are all expected to continue making positive contributions to the Welsh Government's budget. In part this reflects policy choices, for example land transaction tax has a higher rate on additional

properties than the UK Government’s stamp duty land tax. In addition, the freeze on the income tax personal allowance has a greater proportional impact on revenues in Wales than elsewhere.

The net position is forecast to improve sharply between 2023-24 and 2024-25, from around £150m to nearly £300m. The net position then falls by around £100m in 2025-26 before recovering to around £300m in future years.

The budgetary improvement in 2024-25 is partly driven by positive reconciliation adjustments relating to the 2021-22 outturn. A joint statement with HM Treasury with the details of these adjustments was published [here](#) on 7 December 2023. The WRIT block grant adjustment and the WRIT revenue forecast for 2024-25 are now fixed for budgetary purposes. The reduction in the net position in 2025-26 reflects the fact that the larger positive adjustments from 2021-22 are not expected to be repeated in 2022-23. (The outturn for 2022-23 will be published in the Summer of 2024.)

Chart 40: Net position between devolved tax forecasts and block grant adjustments (£ million)



Source: OBR and WG calculations

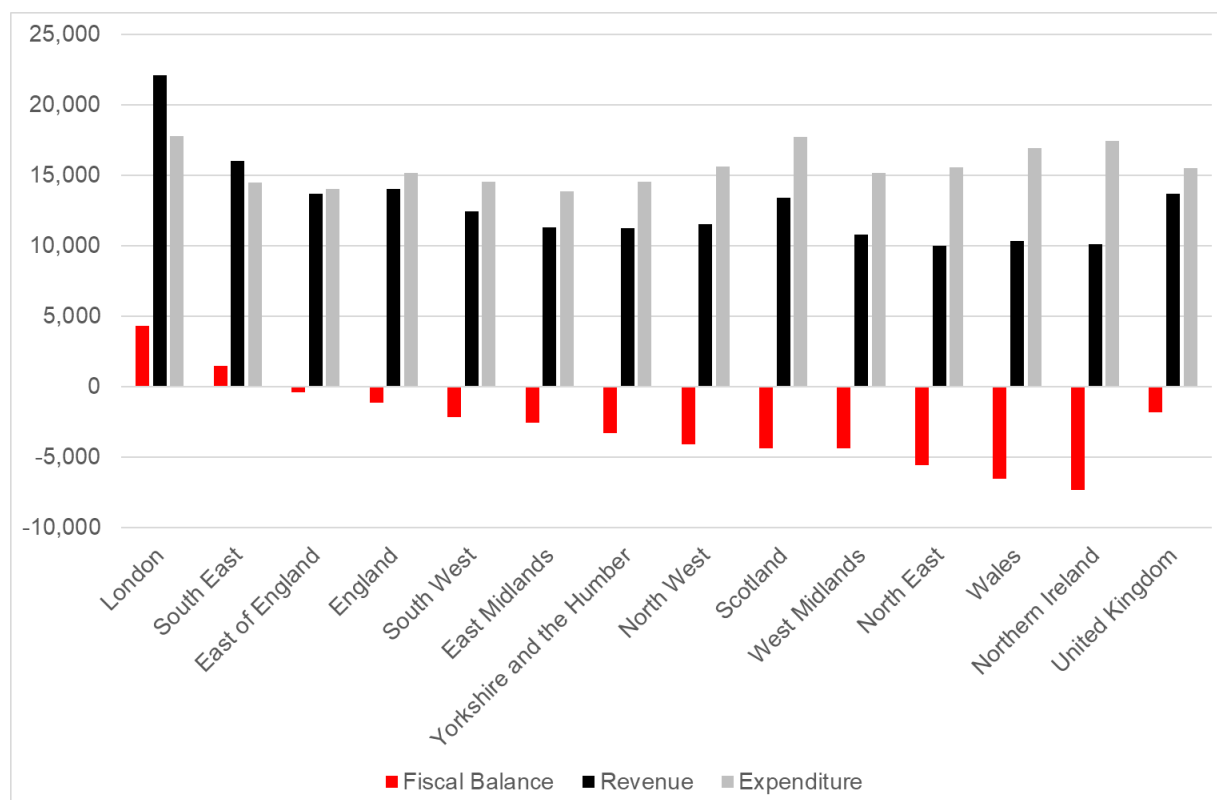
Fiscal balance

Chart 41 shows the fiscal balance for Wales and other UK countries and English regions in 2021-22. A negative balance indicates expenditure higher than revenues. These figures will have been affected by the COVID-19 pandemic and the response to it, with every country and most English regions recording a negative fiscal balance. The relative pattern between different areas has remained much the same over recent years.

Public expenditure per head is lower in Wales than in Scotland or Northern Ireland, but higher than England and most English regions. Generally, the level of expenditure in different areas reflects the relative age structures and other indicators of need. Expenditure per head is higher in Scotland and London for other reasons.

Revenues per head in Wales are below the UK average and similar to those in the North East of England and Northern Ireland. The underlying weakness of the tax base in Wales again reflects demographic factors, but also the relatively small number of high-income earners in Wales, both of which are reflected in Welsh relative performance on GDP.

Chart 41: Fiscal balance per person (£), 2021-22



Source: ONS

Notes: North Sea oil and gas revenues allocated on geographic basis

The larger gap between revenue and expenditure for Wales compared to the UK average represents a major transfer to Welsh residents through the UK fiscal

system, and this transfer is the main reason for the gap shown between measures of household income and GDP in Wales as discussed above. This reliance on fiscal transfers obviously represents a key risk to Welsh living standards.

As noted above, demographic change further adds to the longer term economic and fiscal risks facing Wales.

Under the current fiscal arrangements, Wales has considerable, but not complete, protection from apparently adverse movements in population – indeed, in some circumstances, such movements could have beneficial effects over the shorter term (as the block grant contains a large base which would be rolled forward, and “shared” across a population that would be smaller than otherwise).

However, under potentially different future fiscal arrangements, a weakness in the tax base resulting from demographic change could be a much greater liability.

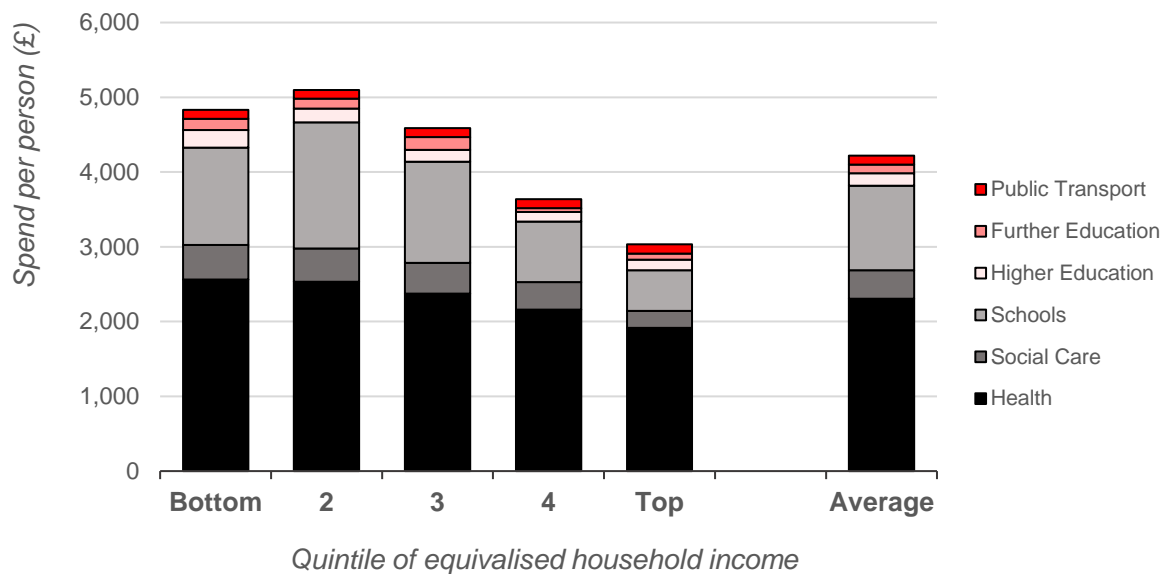
While many of the factors determining future population levels are driven by factors that are hard to influence, the increased potential for remote economic activity, including remote working, coupled with the high level of amenity in Wales, provides scope for policies to address relative population decline in Wales. Measures that increase the attractiveness of Wales as location could help to retain and attract people, including returnees.

Distributional analysis of devolved public expenditure

The Welsh Government has published an updated analysis of the distributional impacts of devolved spending on the population of Wales alongside the draft Budget 2024. Consistent with previous iterations of the analysis for past budgets, Chart 42 shows that devolved expenditure is broadly progressive across household income quintiles.

The distribution is not uniformly progressive however. The impact of some of the more universal policy areas depends on where users are concentrated in the income distribution. For example, where children are concentrated and how that affects school spending across quintiles.

Chart 42: Distributional impact of the Draft Budget 2024-25



Source: Welsh Government analysis using UKMOD⁴²

Note: Modelled policy accounts for around 70% of total planned Welsh Government expenditure for 2024-25.

⁴² Richiardi M, Collado D, Popova D (2021). UKMOD – A new tax-benefit model for the four nations of the UK. *International Journal of Microsimulation*, 14(1): 92-101. DOI: 10.34196/IJM.00231.