Dadansoddi Cyllid Cymru
Wales Fiscal Analysis

Trends in the Welsh Income Tax base: an update

April 2019

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Summary

- On April 6th, Welsh income taxpayers began paying the Welsh Rates of Income Tax to the Welsh Government. While tax rates and policy remain unchanged, future trends in income tax revenues raised in Wales will influence the funding available for devolved services. Crucially, the *relative* trends in the Welsh tax base compared with England and Northern Ireland (E&NI) will determine the net effect of income tax devolution on future Welsh budgets. In this briefing we explore the latest trends in data on the Welsh tax base, and what these mean for devolved income tax revenues and future Welsh budgets.

- According to the latest Office for Budget Responsibility (OBR) forecasts, the Welsh Rates of Income Tax are now expected to raise £2.1 billion in revenue in 2019-20, growing to nearly £2.5 billion by 2023-24. Accounting for the adjustments made to the Welsh block grant, there is forecast to be a small but positive effect on the Welsh budget from income tax devolution from 2020-21 onwards, averaging around £9m a year to 2023-24.

- Recent data suggest the employment rate of working age adults in Wales has converged with the UK average. If this faster growth in employment is translated into growth in the number of taxpayers in Wales, it could counter the effect of Wales' slower growing population. Our projections suggest faster employment growth in Wales could boost the Welsh Government budget by over £60m a year by 2023-24.

- Growth in employee pay in Wales for the last two years averaged just 1.1% (in nominal terms), 1.6 percentage points below the growth rate in UK earnings. This slower average wage growth can be attributed to slower growth for higher earners in Wales compared with the rest of the UK. This trend may have a large effect on the performance of the Welsh tax base, since the highest-earning decile of taxpayers will contribute around 38% of devolved income tax.

- Our projections show that if the recent trend of slower earnings growth in Wales continues – with average pay growing 0.5 percentage points slower than in E&NI – this could result in a shortfall of £49m in the Welsh budget after five years of devolution. Conversely, 0.5 percentage points faster growth in average earnings in Wales would leave the Welsh budget around £79m better off by 2023-24.

Income tax devolution and block grant adjustments

On April 6th, Welsh income taxpayers began paying the Welsh Rates of Income Tax. Income tax rates paid by taxpayers resident in Wales on Non-Savings Non-Dividend (NS-ND) income fell by 10p in the pound at each rate (e.g. from 20p to 10p at the basic rate). The Welsh Government's outline draft Budget in October confirmed its intention to set each of the Welsh Rates of Income Tax at 10p, leaving tax rates paid by Welsh taxpayers unchanged.

While tax policy remains unchanged, future trends in income tax revenues raised in Wales will have a bearing on Welsh budgets. To account for the income tax revenues which now form a part of the budget, a downward adjustment will be made to Wales' block grant from HM Treasury equal to the revenue being devolved. From next year, this block grant adjustment (BGA) will be updated each year according to what happens to comparable UK government revenues in England & Northern Ireland (E&NI).[1] It will therefore be the *relative* performance of the Welsh tax base compared with E&NI which will determine the net effect of income tax devolution.[2]

In July 2018, we published our report for the Wales Centre for Public Policy, *The Welsh Tax Base: Risks and Opportunities after Fiscal Devolution*.[3] We analysed the factors which will underpin the performance of devolved income tax revenues, notably relative movements in Wales' demographics, labour market and earnings.

This short briefing updates some of that analysis with the latest available data, analysing what the latest trends mean for the Welsh income tax base and future Welsh Government budgets.

Latest trends in the income tax base in Wales

OBR forecasts

Alongside the UK government's Spring Statement, the Office for Budget Responsibility (OBR) published its latest forecasts of devolved Welsh Government revenues. Its forecasts for devolved income tax revenue was revised upwards significantly. The Welsh rates of income tax are now expected to raise £2.1 billion in revenue in 2019-20, growing to nearly £2.5 billion by 2023-24. The

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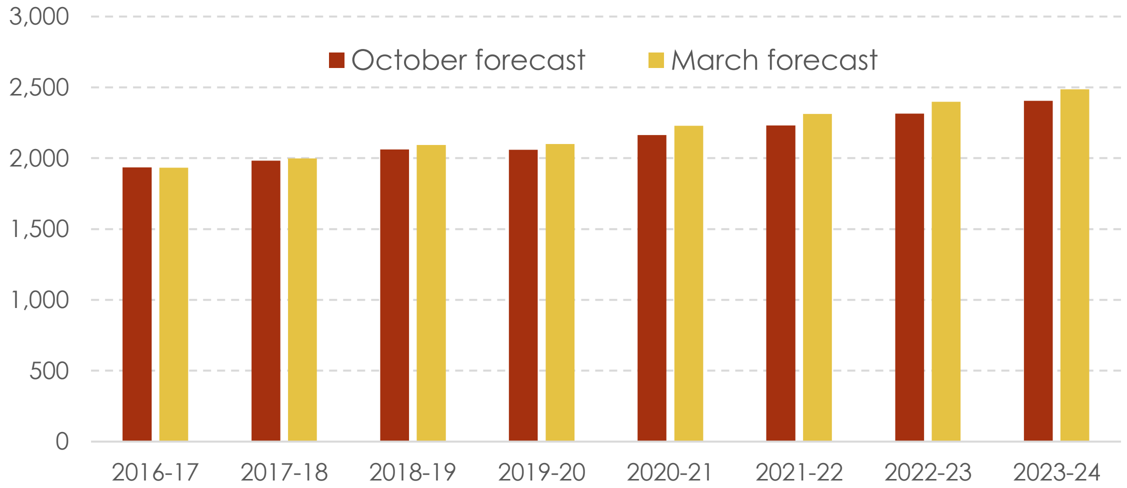
[1] Scotland is excluded from this calculation as the comparable revenue is devolved to the Scottish Government.
[2] For a full explanation of the BGA mechanism used, see Poole, Ifan and Phillips (2017) *Fair Funding for Taxing Times?*, available here: **https://www.cardiff.ac.uk/__data/assets/pdf_file/0008/1287233/Fair-Funding-for-Taxing-Times-Assessing-the-Fiscal-Framework-Agreement.pdf**
[3] Available here: **https://www.wcpp.org.uk/wp-content/uploads/2018/07/The-Welsh-Tax-Base-_WCPP-Final-180627.pdf**

main reason for the upward revisions were stronger than expected receipts and earnings growth at the UK-level. Real-Time Information from HMRC (discussed later) suggests that earnings growth has been particularly strong at the very top of the earnings distribution. Since the income tax system is progressive, higher earners pay a larger share of their incomes in income tax. Growth of nearly 6% in the incomes of the top 0.1% per cent has provided a welcome boost to tax receipts.[4] Self-Assessment income tax receipts for January were also higher than expected, including for non-dividend income.

Figure 1

OBR forecasts of devolved Welsh income tax, October 2018 and March 2019



Source: OBR (2019) Devolved tax and spending forecasts

We can use the OBR's forecasts for revenue growth in the rest of the UK to project future BGAs, and calculate the forecasted net effect of income tax devolution (income tax revenues less BGA). **According to these forecasts, there will be a small but positive effect on the Welsh budget from income tax devolution from 2020-21 onwards, averaging around £9m a year to 2023-24.**

However, a key assumption underpinning all forecasts made by the OBR in March was that the UK would leave the European Union on 29 March 2019 and enter a transition period until December 2020. During which time it was assumed there would be no change to the terms of trade between the two partners. Of course, contrary to these assumptions, the UK has not yet left the EU, and there is still considerable uncertainty surrounding the Brexit process and any future relationship. A disorderly

[4] Since there are fewer very high earners in Wales, this faster growth amongst the very highest earners would be expected to have a larger effect on revenues across the rest of the UK compared with devolved income tax revenues. However, since there will be separate BGAs for each income tax band, the Welsh budget is largely protected from such an increase in inequality (see later discussion).

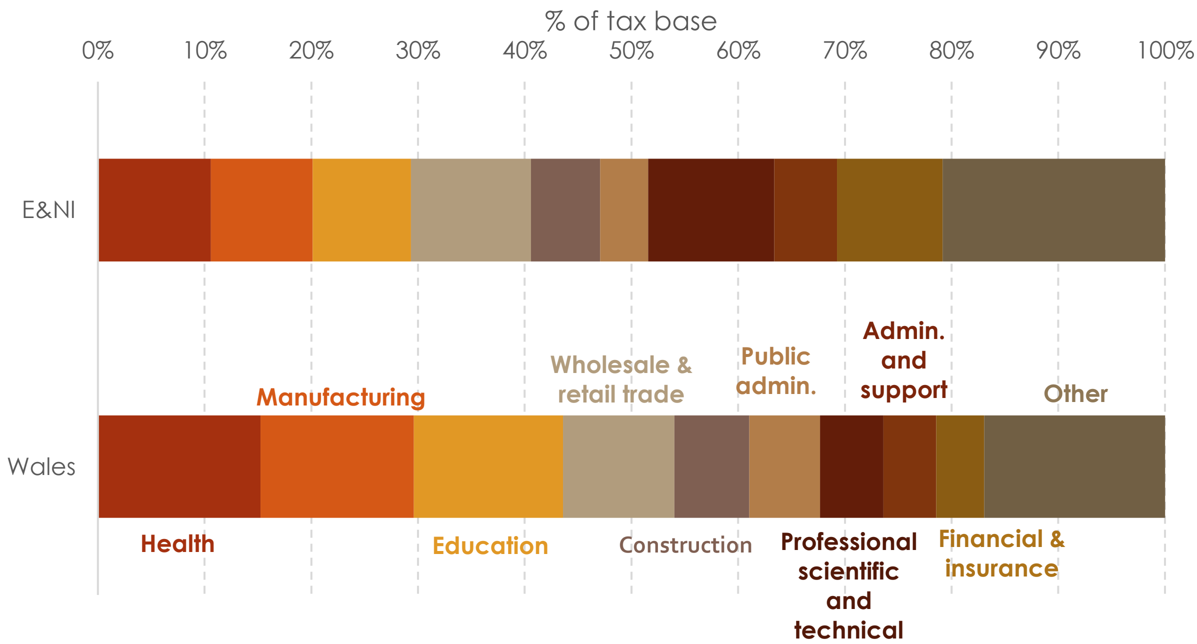
Brexit would have a 'severe short-term impact on the economy', while longer-term economic growth will be heavily influenced by the shape of the UK's future relationship with the EU.[5]

As well as the overall economic effect of Brexit, tax devolution therefore requires us to consider the relative effect on the Welsh economy. For instance, if Wales is made relatively worse off by future arrangements compared with the rest of the UK, the devolved tax base may grow at a slower pace compared with the BGAs, creating a shortfall for the Welsh Government.

A key determinant of the relative effect on the Welsh tax base will be the differences in the industry-mix of the Welsh income tax base, and how these various sectors fare after Brexit. As shown in Figure 2, a much greater share of the income tax base in Wales derives from manufacturing compared with England and Northern Ireland.

Figure 2

Tax base from employment income by industry, 2015-16



Source: HMRC (2018) Survey of Personal Incomes Public Use Tapes and authors' calculations

[5] OBR (2018) *Brexit and the OBR's forecasts:* **https://obr.uk/download/discussion-paper-no-3-brexit-obrs-forecasts/**

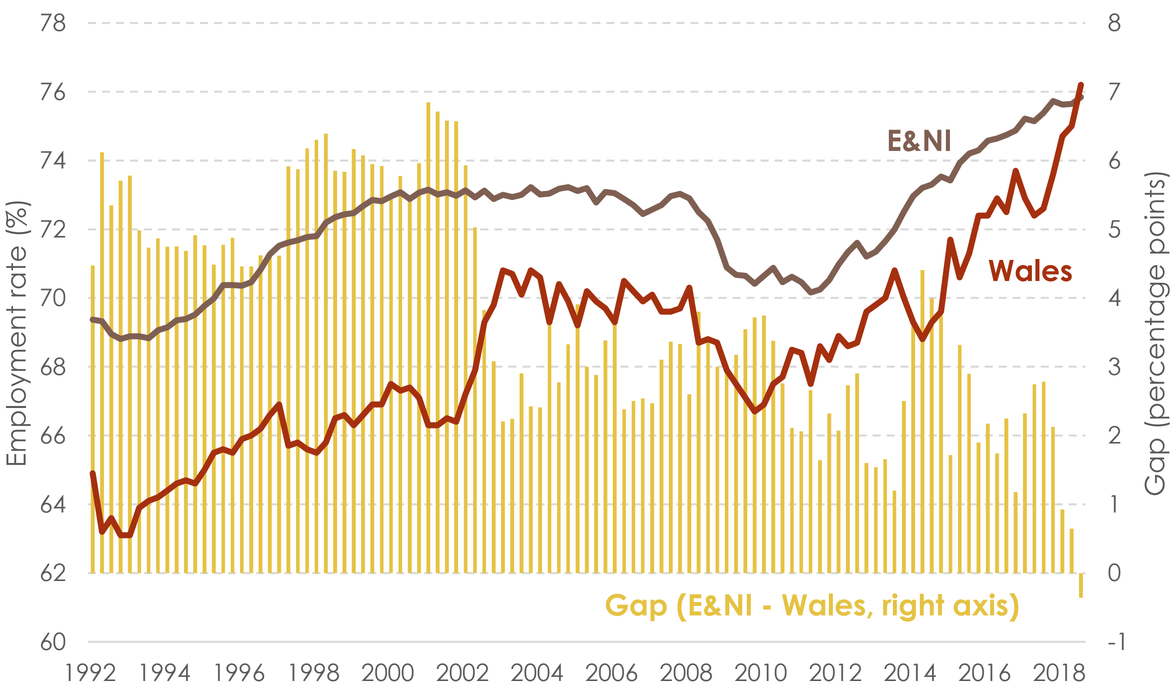
Employment and the number of taxpayers

The growth in the number of income tax payers in Wales will be an important factor in the performance of the income tax base. One of the key determinants of this will be growth in the overall population of Wales compared with the rest of the UK. Since 2008, growth in the adult population in Wales has averaged 0.4 per cent, half the rate of growth in E&NI (0.8 per cent) because of lower life expectancies, lower birth rates and lower net international migration to Wales. Wales has a lower share of the population aged 16 to 65 - an age group which has in fact reduced in size since 2011. Labour market participation falls significantly for older age groups and NS-ND incomes (mainly derived from pension income) falls in comparison with younger age groups.

Among the working-age population however, there is evidence that employment rates in Wales and E&NI have recently converged. Figure 3 presents the long-term trend in the employment rates for those aged 16 to 64. The data shows a persistent gap in the employment rate between Wales and E&NI over time, initially averaging around 5.5 percentage points from 1992 to 2002, and around 2.7 percentage points since.

Figure 3

Employment rates for persons aged 16 to 64, 1992 to 2018



Source: ONS (2019) Labour Force Survey

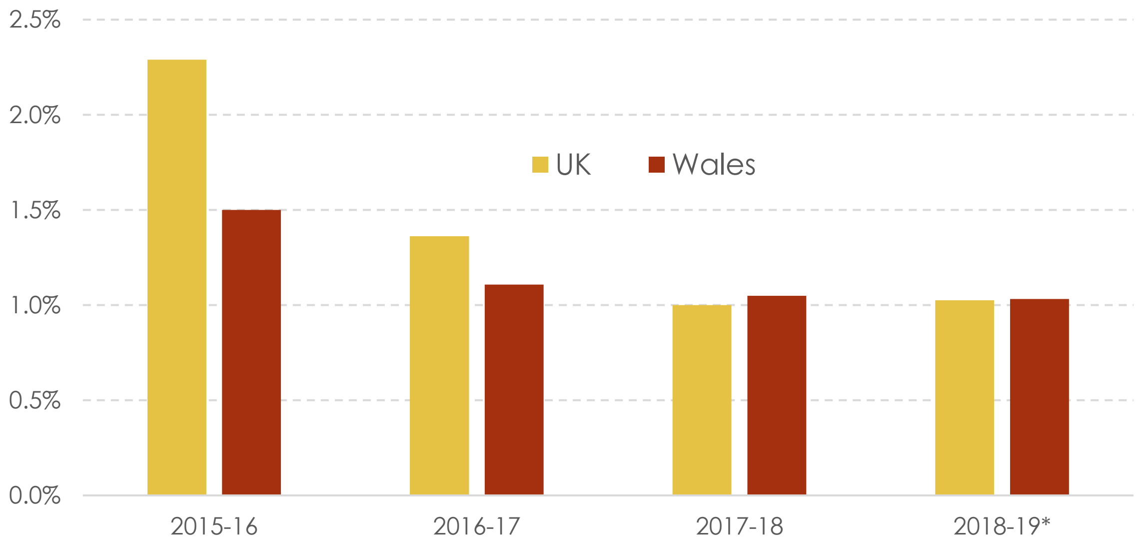
The most recent data suggests this employment rate gap has closed. In the last quarter of 2018, Wales had a higher employment rate amongst the working-age population for the first time.

An alternative source of data on employment in Wales is the Annual Population Survey, which is based on an enhanced sample for Wales, and is compiled as a rolling annual average.[6] The latest available data covers the year to December 2018, and also suggests there has been some convergence in employment rates between Wales and the rest of the UK. However, in this data source, the employment rate remains around 1.9 percentage points lower than the UK as a whole.

Another valuable source for data on the underlying trends in the Welsh tax base is HMRC's newly released PAYE Real Time Information.[7] These experimental statistics cover individuals receiving pay from PAYE employments, so therefore excludes self-employed and pensioner taxpayers. The rate of growth in PAYE employment has decreased over recent years, but more so across the UK as a whole than in Wales. Despite Wales' slower growing overall population, PAYE employment in Wales has matched the UK as a whole in more recent years.

Figure 4

Annual change in individuals receiving pay from PAYE employment



Source: HMRC (2019) Pay as You Earn Real Time Information

**Average over first two quarters of 2018-19*

[6] Available here: **https://statswales.gov.wales/Catalogue/Business-Economy-and-Labour-Market/People-and-Work/Employment/Persons-Employed/employmentrate-by-welshlocalarea-year**
[7] Available here: **https://www.gov.uk/government/statistics/uk-real-time-information-experimental-statistics**

Earnings

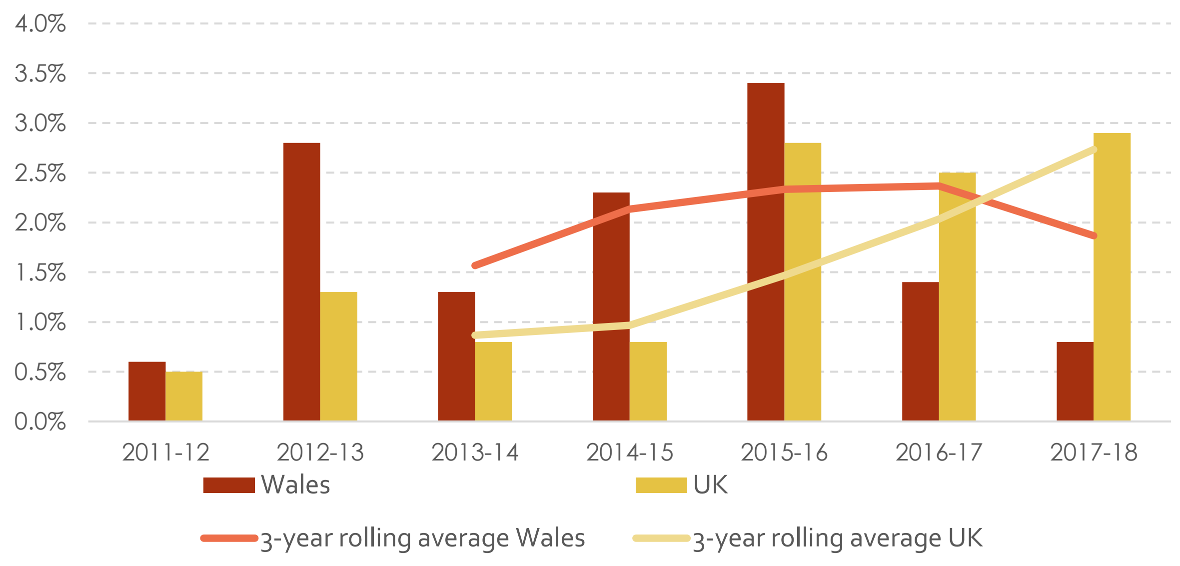
In addition to the number of taxpayers in Wales, trends in their income will be an important determinant of the Welsh tax base – in particular, pay growth in Wales compared with the rest of the UK.

We can use data from the *Annual Survey of Hours and Earnings (ASHE)* to examine change in mean annual pay across Wales and the UK since 2010-11 (the period for which comparable data is available).

As illustrated in Figure 5, for each year between 2011-12 and 2015-16, the annual percentage growth in Welsh mean earnings outstripped the equivalent rate of growth in England by an average of 0.8 percentage points. However, this trend was reversed in more recent years. In 2017-18, the annual percentage increase in pay in Wales was 0.8%, 2.1 percentage points below the growth rate in UK earnings. Based on a three-year rolling average, wages are now growing relatively slower in Wales than the UK as a whole.

Figure 5

Mean annual percentage increase in pay, Wales and UK (2012 – 2018, nominal)



Source: ONS (2018 and previous) Annual Survey of Hours and Earnings (ASHE)

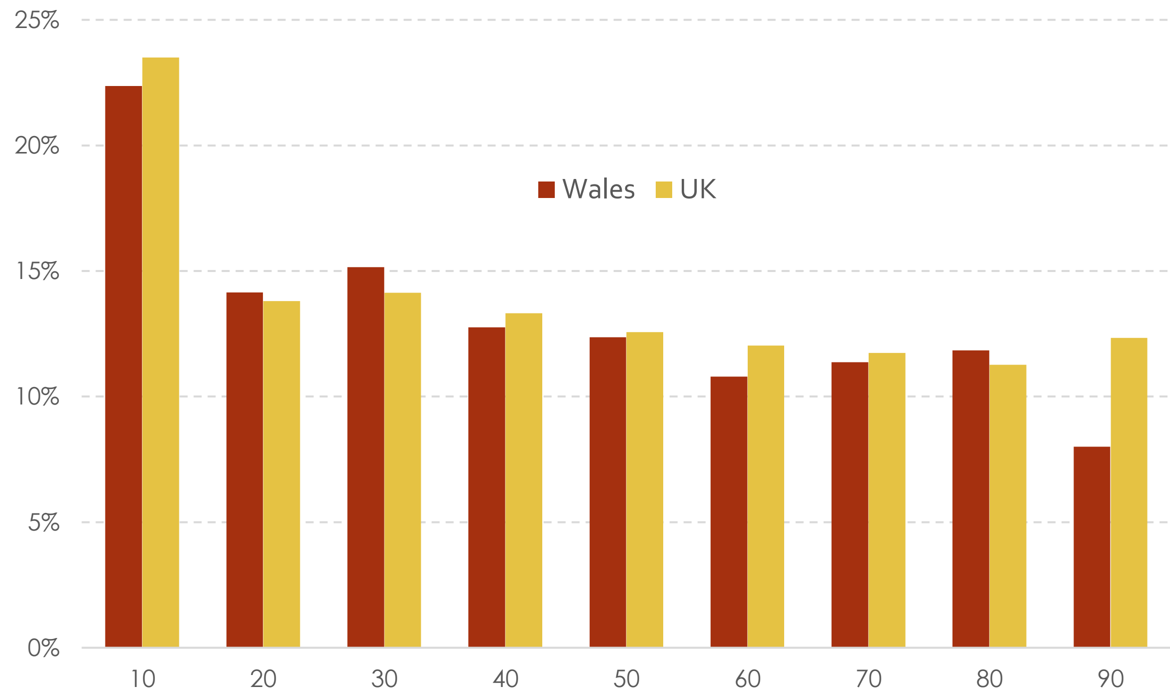
The relatively slower wage growth in Wales since 2016 can be attributed to relatively larger pay increases for earners within the highest earning decile in the UK (Figure 6). This is supported by the fact that increases in median annual pay have been broadly consistent across Wales and the UK during this period.

Figure 6 also shows that the largest percentage increase in pay since 2010-11 has been seen by earners in the lowest decile, possibly reflecting the introduction of a National Living Wage in 2016. In general, higher earners have seen smaller percentage increases to their pay during this period both in Wales and the UK, although in absolute terms they will have received larger increases.

It should be noted that any divergence between Wales and the UK figure at the 10th and 20th percentile will not contribute to the relative performance of the NS-ND tax base. This is because these Welsh earners would have been earning less than the personal allowance threshold in 2018.

Figure 6

Total increase in pay by percentile from 2010-11 to 2017-18, Wales and UK (nominal)

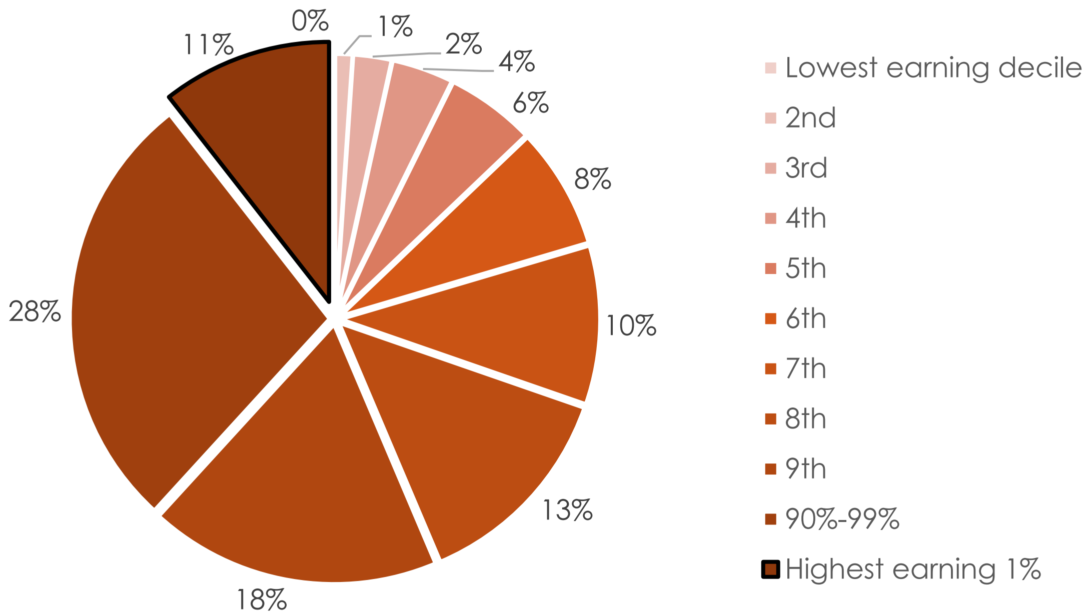


Source: ONS (2018 and previous) Annual Survey of Hours and Earnings (ASHE)

Meanwhile, divergence in the relative trends of higher-earning individuals are likely to have the largest impact on the Welsh tax base as these taxpayers account for a significantly larger share of earned income. Figure 7 shows the estimated share of devolved income tax revenues which will be raised by each decile of taxpayers in 2019-20. The highest-earning decile of taxpayers (in terms of NS-ND incomes) will contribute around 38% of devolved income tax, more than the lowest-earning seven deciles. The highest-earning 1% of taxpayers alone will contribute over a tenth of devolved tax revenues.

Figure 7

Devolved income tax revenue by taxpayer decile, 2019-20



Source: HMRC (2018) Survey of Personal Incomes Public Use Tapes and author's calculations

Across the UK as a whole, growth in public sector pay has trailed behind private sector growth in recent years. According to ASHE data, annual pay for public sector employees in Wales grew by an average of 1.5% a year from 2010-11 to 2017-18 compared with 2.3% growth in private sector pay.

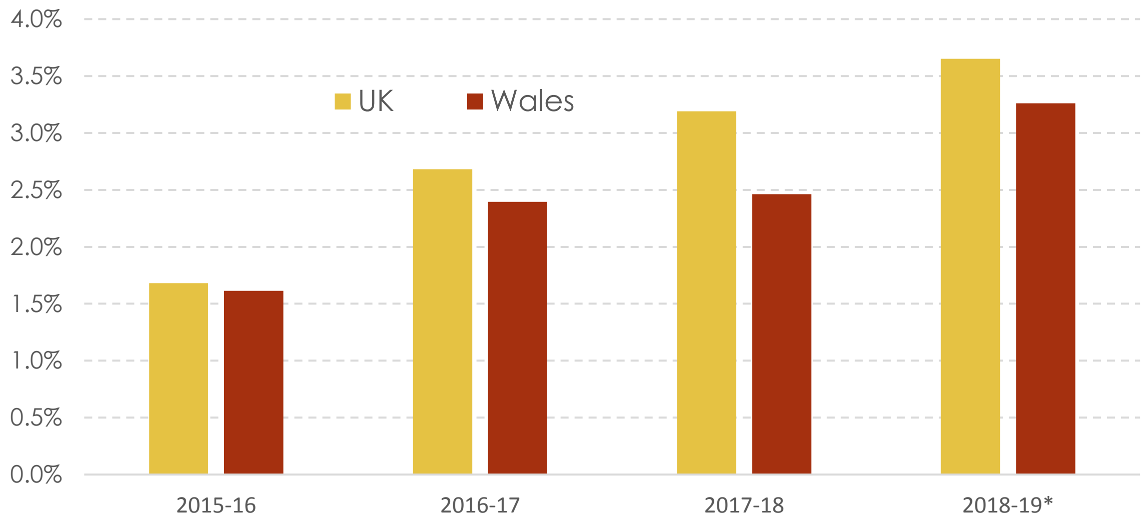
Public sector pay in Wales often follows the rest of the UK more closely than private sector pay, given the influence of UK government policy. Annual pay for public sector employees in Wales was 94% of the UK average in 2017-18, while annual pay for private sector employees was only 76% of the UK average.

As can be seen from Figure 2, income from public sector employment (in health, education and public administration) accounts for a larger share of the Welsh income tax base compared with the rest of the UK. This means future trends in public sector pay across the UK could have an effect on the relative performance of the tax base. For example, the lifting of the public sector pay cap by the UK and Welsh governments last year could result in faster relative growth in the Welsh tax base than would otherwise have been the case.

HMRC's Real Time Information also allows us to explore trends in pay growth of individuals receiving pay from PAYE employment. Figure 8 shows the annual change in mean pay in Wales and the UK as a whole over recent years. Unlike the picture painted by ASHE data, average growth in pay has been increasing over recent years. However, this data still suggests pay growth in Wales has trailed the UK as a whole over more recent years, by an average of 0.4 percentage points.

Figure 8

Annual change in mean pay per individual receiving pay from PAYE employment, 2015-16 to 2018-19



Source: HMRC (2019) Pay as You Earn (PAYE) Real Time Information

**Average for first two quarters of 2018-19*

Projections of the effect of tax base changes on future Welsh budgets

Wales Fiscal Analysis model (WFA-MOD)

To explore the potential budgetary effect of trends in the Welsh tax base, we use a microsimulation of devolved tax revenues, making assumptions on the growth in the number of taxpayers and their incomes. We use the Survey of Personal Incomes 2015-16 as a base year to calculate NSND income from different sources of income for each individual in the sample of Welsh taxpayers. We adjust this for reliefs and allowances before applying thresholds for each income tax band to estimate taxable income at each band.

Demographic and labour market participation changes are captured by adjusting the weighting applied to each individual in the sample from year to year, assuming different levels of population and employment rate growth for each age category. We use the ONS population projections by age group, and the employment rate of each group from the Annual Population Survey data. For future years we use the OBR's employment rate forecasts.

Growth in employment income for the private and public sectors are taken from ASHE data for years to 2017-18. For subsequent years, we use the OBR forecasts for growth in average earnings (wages and salaries divided by employees).

A full methodology can be found in annex B of our original report. We have updated our assumptions on wage and employment growth with the latest available data. A key difference in the assumptions made since the previous report relates to the lifting of the public sector pay cap, resulting in faster assumed growth in public sector pay.

Comparison of other forecasts with WFA-MOD

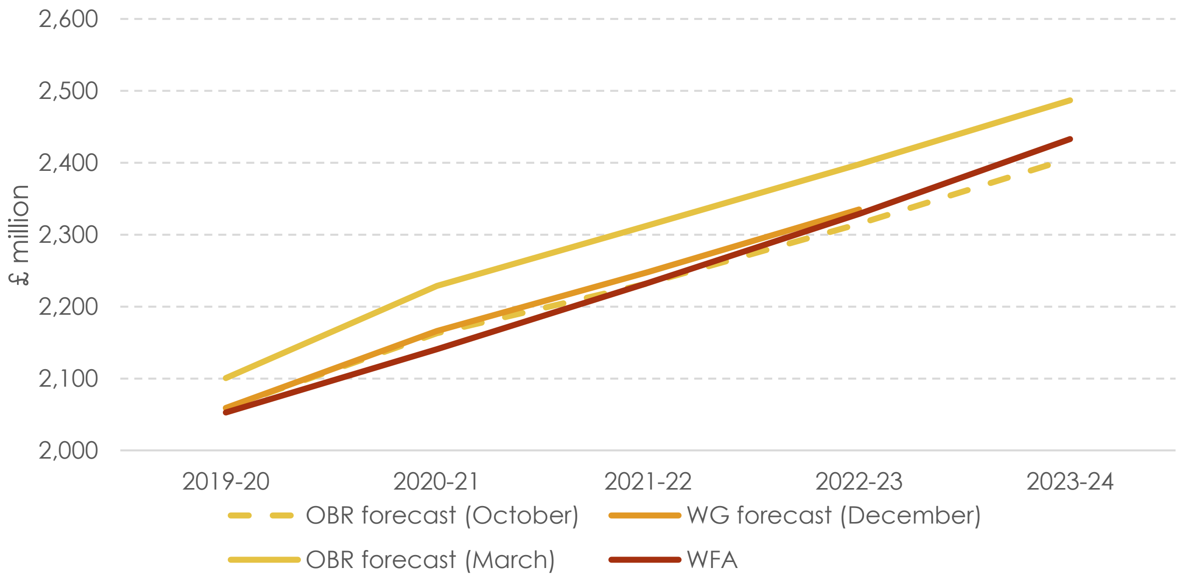
Figure 9 shows the projected devolved income tax revenues alongside other forecasts made by the OBR and the Welsh Government. According to our projections, devolved income taxes will grow from £2,053 million in 2019-20 to £2,433 million in 2023-24 (the red line in Figure 9).

These forecasts use different methodologies and assumptions. The OBR forecasts UK-wide income tax revenues from self-assessment and PAYE taxpayers separately, and then forecasts the Welsh share of these components based on historical shares, adjusted for the asymmetric effects of policy measures and relative population growth. The projections of devolved income tax from our model are relatively similar to the previous OBR forecast from October 2018 and Welsh Government forecasts from December 2018. However, as outlined above, the OBR revised its forecasts upwards significantly in its March 2019 publication, reflecting recent receipts outturn data (not captured in our projections).

Although the OBR forecast is higher than our projections for each year of the forecast, the projected net effect of income tax devolution after accounting for the BGAs from 2020-21 to 2023-24 is similar in both cases (an average of £9m a year compared to £8m).

Figure 9

Welsh Government devolved income tax revenues, 2019-20 to 2023-24



Source: HMRC (2018) Survey of Personal Incomes Public Use Tapes and author's calculations; OBR (2019) Devolved tax and spending forecasts

Modelling tax base divergence

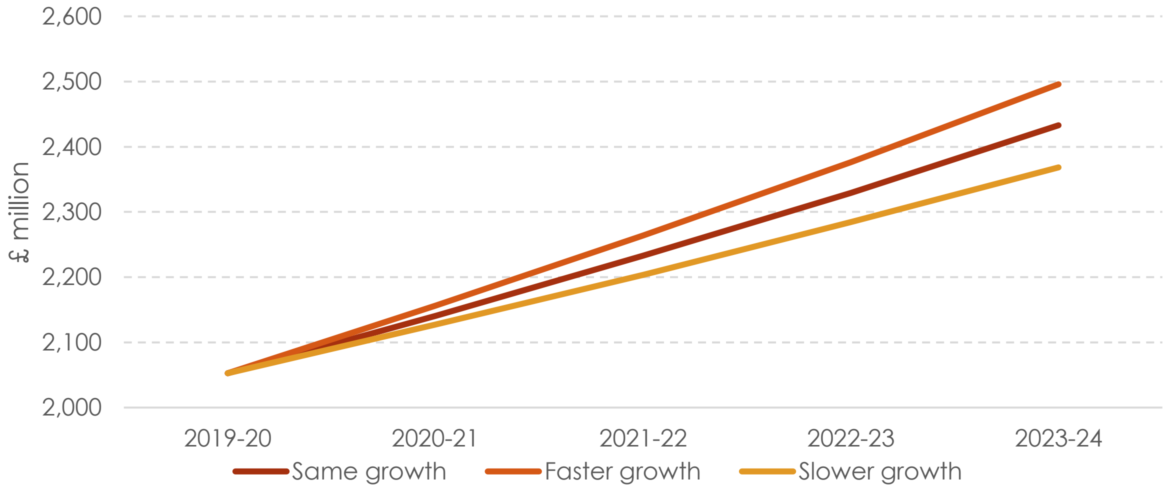
The forecasts and projections included in Figure 9 assume similar trends in tax base growth in Wales as the rest of the UK over coming years. As explored in previous sections however, trends in employment and earnings can diverge over time. The growth in the number of taxpayers in Wales could be higher if employment rates converge to the rest of the UK (as suggested by LFS data). Meanwhile, earnings growth has been slower in Wales compared with E&NI over recent years, which would affect growth in taxpayer incomes.

Figure 10 adjusts our assumptions on future earnings growth so employment incomes of taxpayers grow 0.5 percentage points faster and 0.5 percentage points slower in Wales compared with E&NI from 2020-21 onwards. Projected annual growth in devolved revenues averages 4.3% in our central projection. Faster modelled earnings growth would result in 5.0% average annual growth in revenues, while slower earnings growth would see growth slowing to 3.6% a year on average.

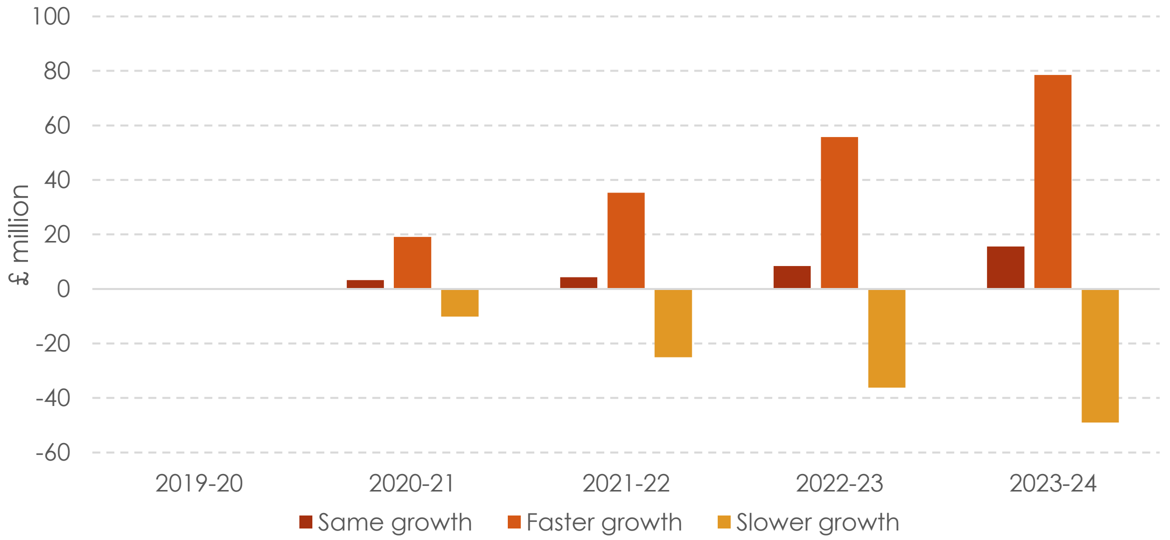
Figure 10 shows the path in projected devolved revenue growth under these different scenarios, and also the net effect on the Welsh budget after accounting for growth in the BGAs. In the faster growth scenario, the Welsh budget would be around £79m better off by 2023-24, compared with a no-devolution scenario. Meanwhile, a continuing trend of relatively slower growth in earnings in Wales would result in a shortfall of £49m in the Welsh budget after five years.

Figure 10

Welsh Government devolved income tax revenues under different earnings growth scenarios, 2019-20 to 2023-24



Net effect on the Welsh budget under different earnings growth scenarios, 2019-20 to 2023-24



Source: HMRC (2018) Survey of Personal Incomes Public Use Tapes and author's calculations

A potential concern arising from recent trends is the very high growth in the incomes of the very highest-earning taxpayers across the UK. If this trend continues, it will have a greater impact on tax base growth in the rest of the UK compared to Wales. However, the Welsh Government budget will be relatively well protected from such trends. There will be three block grant adjustments for each income tax band, and each will equal the revenue raised at that band in the first year of devolution.

Income growth of the highest-earners mainly affect revenue at the additional rate, so will only affect around 2-3% of the overall BGA (reflecting the share of devolved revenues raised in this band).

As an illustrative (and rather extreme) example, we grow the incomes of the highest-earning 1% of taxpayers across the UK - those projected to earn over £177,000 in NSND income in 2019-20 - by 10%, keeping other taxpayers' incomes constant.[8] As Wales only has a very small share of these high earners, the effect on devolved revenues (growth of 0.4%) are not as great as across the UK (1.9% growth). If the BGA was calculated as one calculation for all bands, this would lead to a net shortfall for the Welsh Government of around £36m. However, with the three separate BGAs, the effect is negligible.

The Welsh Government budget will be affected if the growth in income of the highest earners in Wales diverge relative to their counterparts elsewhere in the UK (as has been the case over recent years – see Figure 6). That is, it will be the *relative* trends in income inequality in Wales compared with the rest of the UK which will have an effect on the Welsh budget, rather than changes in overall income inequality across the UK.

An important factor in the future performance of the Welsh tax base is whether the convergence in working-age employment rates between Wales and the rest of the UK suggested by LFS data translates into faster growth in the number of income taxpayers. Faster growth in employment could counter the effects of Wales' slower growing population.

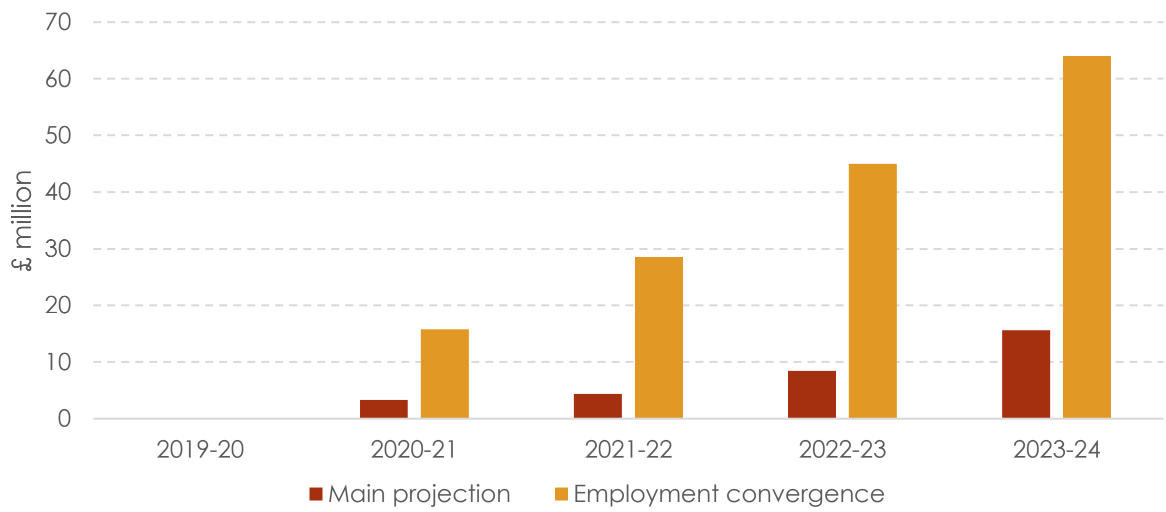
The latest APS data suggests there is still room for Welsh employment rates to converge with the rest of the UK over coming years. The projection shown in Figure 11 therefore uses the latest APS employment rates for Wales to 2018-19, and then assumes the working-age employment rate fully converges with the rest of the UK by 2023-24. In this scenario, the Welsh Government budget would be boosted by the faster growth in taxpayers. Importantly, this projection assumes that the increase in the employment rate does not affect growth in average income. This may not necessarily hold true if the growth is in lower-earning employment.

If the latest LFS data is a fair reflection of relative trends in employment and taxpayer growth in Wales, then the convergence in employment rates may well be *built-in* to the baseline BGA for 2019-20. In that case, the Welsh employment rate would need to grow beyond the UK average to reap the positive effects shown in Figure 11.

[8] The highest-earning 1% of taxpayers in terms of NSND income are those projected to earn over £177,300 in NSND income in 2019-20.

Figure 11

Net effect on the Welsh budget under different scenarios for employment, 2019-20 to 2023-24



Source: HMRC (2018) Survey of Personal Incomes Public Use Tapes and author's calculations

Conclusion

Income tax devolution represents an important step-change in the history of devolution. As explored in this report, the size of future Welsh budgets will be influenced by trends in the Welsh economy. The Welsh Government will bear the risks and rewards of differential growth in the Welsh tax base.

Recent trends in the labour market and employment in Wales have been relatively positive for the Welsh income tax base, with the prospect of more individuals becoming Welsh income taxpayers. However, it is the relative trends in the earnings of taxpayers which will have the largest bearing on the performance of devolved income tax revenues. To avoid a shortfall in the Welsh budget, average earnings will need to at least keep pace with the UK average over coming years.